

MT. SAN ANTONIO COLLEGE 2006-07 Catalog



CELEBRATING



Years of Excellence

ABOUT THE COVER

The cover designs for this Catalog commemorate the 60th Anniversary and rich history of Mt. San Antonio College. Highlighted on the back is a time-zone contrast featuring Pete Reynolds, a member of Mt. SAC's original graduating Class of 1947 and Alex Wu, who holds the distinction 60 years later as Mt. SAC's 1 millionth student and a candidate for the Class of 2007. Just as we have over the past six decades, Mt. SAC remains committed to not only educational excellence, but extraordinary distinction as well.

ACKNOWLEDGMENTS

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

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MT. SAN ANTONIO COLLEGE 2006-07 Catalog

ACCREDITATION

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

CATALOG CONTENT CHANGES

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

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

The 2006-07 Catalog does not constitute a contract or terms of a contract between the student and the College.

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Walnut, California 91789-1399

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www.mtsac.edu

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(Hearing Impaired)

CELEBRATING
 60 years of Excellence

MT. SAC

**Celebrating 60 Years of
Excellence and Distinction**

MT. SAC BOARD OF TRUSTEES

Judy Chen Haggerty, *Esq.*, *President*

Manuel Baca, Ph.D., *Vice President*

Rosanne Bader, *Clerk*

Fred Chyr, *Member*

David K. Hall, Ph.D., *Member*

Gisselle Regalado, *Student Trustee*



This *2006/07 College Catalog* is being published in conjunction with the celebration of Mt. San Antonio College's 60th Anniversary. For six decades, we have offered quality, affordable and accessible learning opportunities to over a million students in the San Gabriel Valley and other parts of California and the world.

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

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

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

Over the past 60 years, Mt. SAC has become a "*College of Champions*." In virtually every academic, athletic and cultural discipline, we have excelled to the top, garnering local, state, national and even international honors. We are very proud of these achievements and the distinction that both faculty and student efforts have brought to the College. I encourage you to read the testimonials posted on our website: www.mtsac.edu.

As we look toward the next 60 years, Mt. SAC will continue to value only one thing above excellence—and that's *distinction!*

Christopher C. O'Hearn, Ph.D.
President/CEO

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JULY 2006

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2006-2007 College Calendar**Fall 2006**

June 5	International student application deadline for Fall 2006
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July 4	Independence Day—(campus closed)
July 26 - August 23	Registration period for 2006 Fall Credit Classes

August 14	Community Education Registration begins for Fall 2006
August 27	Residency determination date
August 28	Fall Semester begins

September 1	Application period ends
September 4	Labor Day—(campus closed)
September 8	Last day to apply for refund for 16-week classes
September 8	Last day to add a 16-week class
September 19	Last day to withdraw without a "W" for 16-week classes
September 29	Last day to change grading option for 16-week classes

October 13	Last day to petition for Fall Semester and Winter Intersession graduation
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November 3	Last day to withdraw from Fall Semester for 16-week classes
November 6	International student application due for Winter 2007 Intersession
November 10	Veteran's Day—(campus closed)
November 23 - 26	Thanksgiving Recess—(campus closed)
November 29	Registration begins for 2007 Winter Intersession and 2007 Spring Semester Credit Classes

December 4	Community Education Registration begins for 2007 Winter Intersession and 2007 Spring Semester
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December 11 - 15	"Book Buy Back" at "SacBookRac"
December 11 - 17	Final Exams—(see schedule in Mt. SAC Info Guide)
December 17	Fall Semester ends

2006-2007 College Calendar

Winter 2007

- November 6, 2006** International students application deadline for Spring 2007
- November 29, 2006** Telephone & online registration begins for Winter and Spring 2007

- January 3** Telephone & online registration ends for Winter 2007
- January 8** Winter Intersession begins
- January 8** International student application deadline for Spring 2007
- January 15** Martin Luther King, Jr. Day—(campus closed)

- February 16** Lincoln's Birthday—(campus closed)
- February 18** Winter Intersession ends

Spring 2007

- November 29, 2006** Telephone & online registration begins for Winter and Spring 2007

- January 1 - 2** New Year's Holiday—(campus closed)
- January 8** International student application deadline for Spring 2007

- February 23** Flex/Staff Development Day
- February 21** Telephone & online registration ends for Spring 2007
- February 25** Residency determination date
- February 26** Spring semester begins

- March 2** Spring application period ends
- March 9** Last day to apply for refund for 16-week classes
- March 9** Last day to add a 16-week class
- March 19** Last day to withdraw Without a "W" for 16-week classes
- March 29** Last day to change grading option for a 16-week classes
- March 30** Cesar Chavez Day of Observance—(classes in session)

JANUARY 2007						
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2006-2007 COLLEGE CALENDAR

APRIL 2007

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JULY 2007

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AUGUST 2007

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2006-2007 College Calendar**Spring 2007 (continued)**

April 13	Last day to petition for May 2007 Graduation
April 30	International student application deadline for Summer Session 2007

May 4	Last day to withdraw from Spring Semester
May 16 - June 20	Telephone and online registration for Summer 2007
May 28	Memorial Day—(campus closed)

June 11 - 17	Final Exams—(see schedule in Mt. SAC Info Guide)
June 15	Commencement
June 17	Spring semester ends

Summer 2007

April 30	International student application deadline for Summer 2007
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May 16	Telephone & online registration begins for Summer 2007
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June 18	International student application deadline for Fall 2007
June 20	Telephone & online registration ends for Summer 2007
June 25	Summer session begins

July 4	Independence Day—(campus closed)
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August 5	Summer session ends
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COLLEGE DIRECTORY

The main telephone number for the College is (909) 594-5611.
After you have reached the College, dial the following 4-digit extensions.

Academic Counselor for Student Athletes	5929	* Earth Sciences and Astronomy	4148	Performing Arts Center Box Office	(909) 468-4050, x2050
Academic Senate	5436	* Electronics and Computer Technology	4821, 4723, 5614	* Physical Education Division	4630
* Accounting and Management	4909, 4910	* English, Literature & Journalism	4706	* Physical Therapy Aide	4750
Advising Center	4293	ESL and Intercultural Programs	4736	* Physics, Engineering	4421
Admissions and Records	4415	Exercise Science/Wellness Center	4625	Photographics	4451
* Aeronautics and Transportation	3098	Express Stop	4141	Photo I.D.	4960
Affirmative Action	4225	Extended Opportunity Programs and Services (EOPS)	4500	Planetarium Shows	2050
* Agricultural Sciences	4540	* Family and Consumer Sciences	4633	President & Board of Trustees	4250
* Air Conditioning, & Welding	5107, 4638	Farm Tours	4794	* Psychology, Education	4428
* Aircraft Maintenance & Manufacturing	4762, 4768	Financial Aid	4450	* Psychiatric Technician	5130
* Alumni Association	5443	* Fire Technology	5148	* Public Services	4654
* American Language	3432	Foundation Office	4215	* Radiologic Technology	4680
* Architecture and Design	3908	* Health Careers Resource Center	4788	Re-Entry Center	4392
* Art, Animation & Broadcasting	5104	Health Center	4400	Regional Health Occupations Resource Center	6101
* Arts Division	5200	* History, Geography, Political Science	4671	* Registered Veterinary Technology	4544
Assessment Center	4265	* Histotechnology	4884	Registration	4415
Associated Students	4528	Honors Program	4665	Relays Office	4840
* Athletics	4630	* Humanities and Social Sciences Division	4570	* Respiratory Therapy	3930
Auxiliary Services	4470	Information Technology	4365	SacBookRac	4475
* Biological Sciences	4013	Instruction Office	4200	Security (Campus)	4299, 4455
Bookstore (SacBookRac)	4475	KSAK Studio	4678	* Service Learning	4656
Bridge Programs	6231	* Language Learning Center	4580	* Sign Language	4443
* Business Administration	4612	* Learning Assistance Services	4300	Small Business Development Center	(909) 629-2247
* Business and Economic Development Division	4600	* Learning Resources Division	5658	* Sociology, Philosophy	4591
Bursar's Office	4960	Library	4260	Stadium Ticket Office	4880
Campus Café	4105	Lost & Found (Student Life)	4525	Student Center	4528
Campus Events	4797	Marketing & Communication Office	4121	Student Life and Student Clubs	4525
Campus Security	4555, 4299	* Mathematics, Computer Sciences	4729, 4652	Student Services, Dean	4525
Career Placement	4510	* Medical Services	4656	Student Services, V.P. Office	4505
Center of Excellence	6106	* Mental Health Technology	4916	* Teacher Prep Institute	4190
Chemistry	4533	Mountie Grill	4624	* Technology and Health Division	4750
Child Development Center	(909) 598-2307, x4920	Mountie Stop	4497	* Theater	4337
Common Grounds Café	4180	* Music	4332	Tutorial Services	6605
* Communication	6303	* Natural Sciences Division	4425	Upward Bound	5634
* Computer Information Systems	4720, 4719	* Noncredit Programs	4220	Veterans' Service Center	4520
* Community Education Division	4220	* Nursing	4560	Wildlife Sanctuary Tours	4794
Community Education Center	4845	* Office Technology	4613		
Contract Education	4210	Parking Office	4233		
* Counseling	4380	Parking Services Cashier	4299		
* Dance	4742	* Paralegal	3015		
Disabled Student Programs and Services (DSP&S)	4290				

* *Instructional Programs and Departments*

Section 1

The College



MT. SAN ANTONIO COLLEGE

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

- prepare students for transfer to baccalaureate-level colleges and universities.
- increase vocational competence resulting in usable and marketable occupational skills.
- provide a general education emphasizing basic skills and appreciations.
- promote continuing education and lifelong learning.
- assist the student through guidance to know and develop his/her abilities in relation to his/her potential.
- provide community service and adult education.

The College offers courses of study through a semester system. Each semester, Fall and Spring, is 16 weeks in length, while summer and winter sessions are 6 weeks long. Many courses are offered in an accelerated mode.

Instruction at Mt. SAC is organized under a divisional structure with departments within each division. At present, the College has eight (8) instructional divisions within which are 39 departments.

HISTORY

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

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

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

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

Mt. SAC has emerged as a leader in education not only in the San Gabriel Valley, but in the state. It is California's largest, single-campus community college with a combined Credit, Continuing Education, and Community Service student enrollment of nearly 40,000. In 2006, Mt. SAC proudly celebrates 60 years of educational excellence. The College will continue to offer access to quality programs and services as well as provide an environment for educational excellence throughout the 21st Century.

MISSION, VISION, AND VALUES

Mission

It is the mission of Mt. San Antonio College:

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

Vision

It is the vision of Mt. San Antonio College:

- to become a premier community college.
- to be a leader in teaching, learning, programs and services.

- to provide access to quality education, focusing on student success within a climate of integrity and respect.
- to consistently exceed the expectations of our students, staff, and community.

Core Values

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

Johanna Heundl (far right), a lifetime member of the Mt. SAC Foundation President's Circle leadership giving group, presents one of many scholarships given at the College's 2006 Scholarship Awards Ceremony. The Foundation contributed a record **\$120,000 in scholarships** to deserving students in the past academic year and plans to double that amount in 2006-07 through a variety of fund-raising activities.




www.mtsacfoundation.org

The College

BOARD OF TRUSTEES

President	Judy Chen Haggerty
Vice President	Dr. Manuel Baca
Clerk	Rosanne Bader
Member	Fred Chyr
Member	Dr. David K. Hall
Student Trustee	Gisselle Regalado
College President	Dr. Christopher C. O'Hearn

ADMINISTRATION**Administrative Services** **Ext. 4230**

Vice President, Administrative Services	Michael Gregoryk
Administrative Director, Auxiliary Services	Jay Devers
Director, Auxiliary Services Accounting	Sid Young
Director, Bookstore	Suzanne Luetjen
Director, Bursar's Office	Sheree Culross
Manager, Custodial Services	Luis Gracia
Director, Facilities Planning and Management	Gary Nellesen
Assistant Director, Facilities, Planning and Management	Becky Mitchell
Facilities Project Manager	Roger Sneed
Director, Fiscal Services	Linda Baldwin
Assistant Director, Fiscal Services	Rosa Royce
Director, Food Services/Satellite Operations	Becky Carr
Director, Grounds and Transportation	Carol Gundlach
Director, Maintenance	Kent Smith
Director, Payroll	Vacant
Director, Public Safety	Doug Evans
Assistant Director, Public Safety	Michael Montoya
Director, Purchasing	Margaret Young
Director, Safety, Health Benefits, & Risk Management	Karen Saldana

Human Resources **Ext. 4225**

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

Information and Educational Technology **Ext. 4357**

Chief Technology Officer	Vacant
Director, College Information Systems and Project Manager	Sheryl Hullings
Director, User Support and Network Services	Dale Vickers

ADMINISTRATION (continued)**President's Office** **Ext. 4121**

Director, Marketing and Communication	Clarence "CB" Brown
Director, Development and Foundation	Leslie Kerr
Coordinator, Alumni Relations/Special Events	Kari Virding

Instruction **Ext. 4200**

Vice President, Instruction	Dr. John Nixon
Dean, Instructional Services	Dr. Virginia Burley
Dean, Arts Division	Dr. Susan Long
Dean, Business and Economic Development Division	Vacant
Interim Associate Dean, Business and Economic Development Division	Dr. Cheryl Marshall
Director, Child Development Center	Janette Henry
Dean, Humanities and Social Sciences Division	Dr. Stephen A. Runnebohm
Associate Dean, Humanities and Social Sciences Division	James Jenkins
Dean, Library and Learning Resources Division	Kerry Stern
Director, Learning Assistance Center	Meghan Chen
Director, Technical Services/Learning Resources	Bill Eastham
Dean, Natural Sciences Division	Larry Redinger
Associate Dean, Natural Sciences Division	Dr. Deborah Boroch
Dean, Physical Education Division	Deborah Blackmore
Director, Physical Education/Wellness Programs	Joe Jennum
Director, Mt. SAC Relays	Scott Davis
Dean, Technology and Health Division	John Heneise
Associate Dean, Technology and Health Division	Dr. Sarah Daum
Director, Nursing Program	Clarence Edwards
Assistant Vice President, Community Education	Barbara Crane
Director, Basic Skills	Madelyn Arballo
Director, Community Education & Contract Training	Gary Kay
Director, ESL and Intercultural Programs	Donna Burns
Assistant Director, ESL and Intercultural Programs	Liza Becker
Coordinator, ESL Curriculum and Assessment	Margaret Teske
Director, Grants	Adrienne Price
Director, Research and Institutional Effectiveness	Barbara McNeice-Stallard

Student Services **Ext. 4505**

Vice President, Student Services	Dr. Audrey Yamagata-Noji
Dean, Counseling	Raul Rodriguez
Associate Dean, Counseling	Thomas Mauch
Dean, Student Services	Carolyn Keys
Director, Admissions and Records	James Ocampo
Assistant Director, Admissions and Records	Patricia Montoya
Director, Upward Bound	Juan Carlos Astorga
CalWorks/CARE Coordinator	Dora Lozano

ADMINISTRATION (continued)

Director, Assessment and Matriculation	James Ocampo
Director, Career Placement Services	Vacant
Director, Disabled Student Programs and Services (DSP&S)	Grace Hanson
Director, Extended Opportunity Programs and Services (EOPS)	Irene Herrera
Director, Financial Aid	Susan Jones
Director, Health Services	Sandra Samples
Director, Student Life	Dyrell Foster

INSTRUCTIONAL DIVISIONS

Arts Division Ext. 5200

Dr. Susan Long, Dean

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

Business and Economic Development Division Ext. 4600

Dean (vacant)

Dr. Cheryl Marshall, Interim Associate Dean

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

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

The division also includes the services of the Child Development Center.

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

Economic Development Directors

Center of Excellence	Audrey Reille, Ext. 6106
Contract Education South	Scott Hammer, 909-628-5748
Small Business Development Center	Mike Brady, 909-629-2247

INSTRUCTIONAL DIVISIONS (continued)

Community Education Division Ext. 4220

Barbara Crane, Assistant Vice President

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

Humanities and Social Sciences Division Ext. 4570

Dr. Stephen Runnebohm, Dean

James Jenkins, Associate Dean

The Humanities and Social Sciences Division is comprised of eight departments: American Language; Communication; English, Literature and Journalism; Foreign Languages; History, Art History, Geography and Political Science; Psychology and Education; Sign Language; and Sociology, Philosophy.

The division sponsors interdisciplinary and national award-winning programs and publishes the student newspaper, The Mountaineer, through journalism courses. The division also supports a nationally ranked forensics program and a successful study abroad program. For additional information, contact the division at ext. 4570.

Library and Learning Resources Division Ext. 4260

Kerry C. Stern, Dean

Meghan Chen, Director, Learning Assistance Center

Bill Eastham, Director Technical Services

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

Departments

Distance Learning	Ext. 5658
Learning Assistance	Chair, Pat Bower, Ext. 4304
Library	Ext. 4260
Media Services	Ext. 4270
Professional and Organizational Development	Ext. 4504
Technical Services	Ext. 4799
Tutoring	Ext. 6605

INSTRUCTIONAL DIVISIONS *(continued)***Natural Sciences Division****Ext. 4425**

Larry L. Redinger, Dean
Dr. Deborah Boroch, Associate Dean

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

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

Physical Education Division**Ext. 4630**

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

Mt. San Antonio College (Mt. SAC) has been a leader among community colleges for over 50 years. Our strong commitment to Physical Education, Athletics and Dance is exhibited by our dedication to the health and well being of our students and our community. Our comprehensive class offerings, certificate programs, Fire and Law Testing (PAT)/Conditioning Program, Dance Productions, Athletic Programs and Athletic Special Events demonstrate this commitment.

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

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

INSTRUCTIONAL DIVISIONS *(continued)***Technology and Health Division****Ext. 4750**

John Heneise, Dean
Dr. Sarah Daum, Associate Dean

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

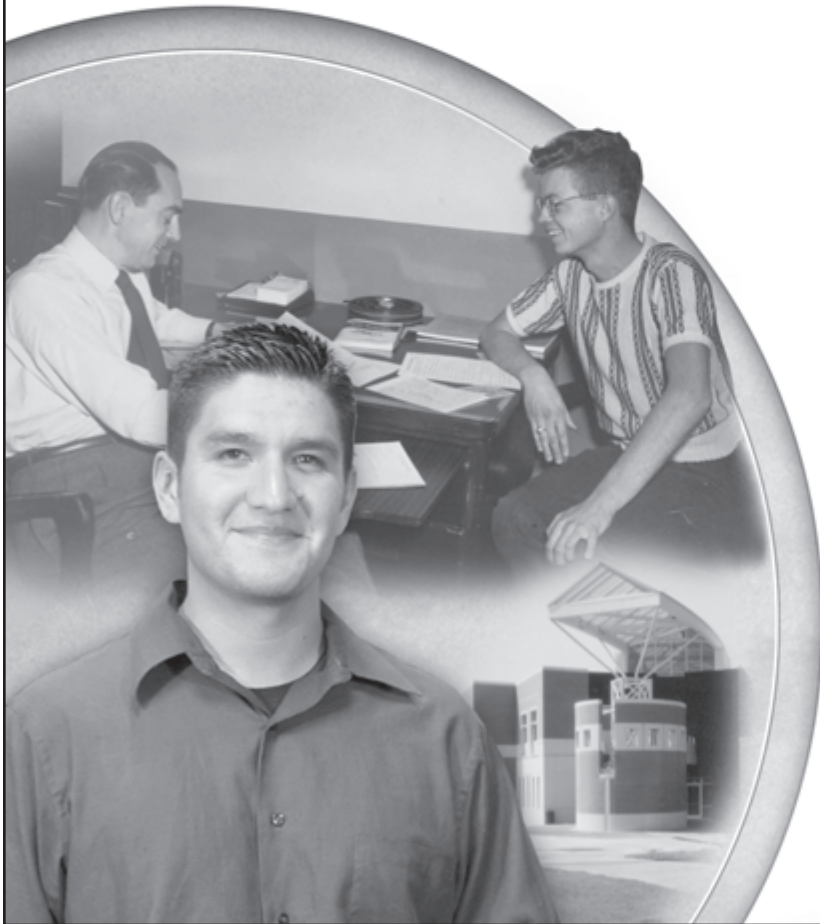
Department

Regional Health Occupations Resource Center Dr. Jesus Oliva, Ext. 6108

Matriculation Services:

Admissions and Registration
Assessment and Placement
Orientation
Counseling/Advisement

Section 2



ADMISSION AND REGISTRATION

Admissions

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

Application to the College

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

1. The application for admission of credit classes can be submitted online. To access the online application, visit the Mt. SAC Admissions Website at <http://admissions.mtsac.edu> and click on the online application link at the tip of the web page.
2. Applications for admission to credit classes are available at the Admissions and Records Office and are also included in each Mt. San Antonio College *Schedule of Classes*. You may submit this application in person or mail it to:

Admissions and Records

Mt. San Antonio College
P.O. Box 910, Walnut, CA 91788-0910.

Residency Requirements

Residency Guidelines

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

Residence Classification

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

* A minor, married but subsequently divorced, retains the capacity to establish his or her own residence. An annulment of the marriage (*a determination that in effect the marriage never took place*) will require that the minor be treated like any other minor.

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

Criteria for Determination of Legal Residence

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

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

Burden of Proof

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

Residence Classification Appeal

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

College Starter Program

The College Starter Program is designed for gifted high school juniors and seniors who would benefit from taking advanced scholastic or vocational work at Mt. San Antonio College. Students must meet the following criteria to participate in the College Starter program:

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

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

Special Admit Program

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

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

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

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

Evaluation of Other College Coursework

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

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

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

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

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

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

To determine General Education and/or Associate Degree equivalency and for granting of unit credit, the course must be easily identifiable as the same course taught at Mt. San Antonio College by a commonly used course prefix, title, and description. To be verified, sufficient information, including prerequisite information, must be available from the accredited college/university to substantiate granting course equivalency and course credit. The College reserves the right to deny acceptance of any course for the purpose of General Education, Associate Degree graduation requirements, or subject requirements. If denied, the student may petition for an in-depth evaluation but will be required to provide official course information from the institution of record or from the college/university catalog.

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

Articulation with High Schools, ROPs, and Adult Schools

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

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

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

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

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

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

Articulation agreements and subject area competencies are updated annually.

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

Admission of International Students

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

- Mt. SAC Application for Admission
- International (F-1 Visa) Student Application
- Application processing fee of \$50.00 (U.S.)
- Confidential Financial support documents
- A "paper based" TOEFL score of at least 450, "computer based" TOEFL score of at least 133, or an Internet-based score of at least 45.
- Transcripts from high school and/or college attended
- TB (tuberculosis) test
- Proof of health insurance (prior to registration)

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

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

The deadlines to apply for the 2006-07 school year are as follows:

- Summer 2006 — First Monday of April
- Fall 2006 — First Monday of June
- Winter/Spring 2007 — First Monday of November

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

Registration

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

MATRICULATION

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

Schedule of Classes

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

Enrollment Fees and Expenses

Students are charged an enrollment fee, a Student Activities Fee, a Health Services Fee, and for some classes Materials Fees for each semester at Mt. San Antonio College. These fees are subject to change. Please consult the latest *Schedule of Classes* for current fees and other related information. Students must purchase their own textbooks and supplies. Expenses for books and supplies for full-time students may average \$300 to \$400 per semester depending upon the program of study selected.

Students wishing to park in the regular student parking lots are required to have a valid Student Parking Permit. The permit may be purchased at the time of registration (*if paying by credit card*) or at the Bursar's Office located in Building 9A.

Refund of Fees

To be eligible for a refund, students must complete and file a Request for Fee Refund form at the Bursar's Office. The Request for Fee Refund form must be completed whether a class is dropped in person, online or by Telephone Registration. Requests for Fee Refund forms must be completed prior to the end of the second week of each semester for 18 week classes, and prior to the end of the first week for short-term classes. This refund period applies to the following fees:

- Enrollment Fee
- Student Activities Fee
- Health Services Fee
- Parking Fee
- Course Materials Fee

NO REFUNDS will be granted after the second week of the semester, except refunds for non-resident tuition which will be pro-rated accordingly, military withdrawal, and classes cancelled by the College.

- **Non-Resident Tuition Fee:** If students who have paid tuition withdraw from the College or reduce their program load, they should apply immediately at the Bursar's Office for a fee refund. The amount of the refund will depend upon when the Request for Fee Refund form is submitted and will be pro-rated accordingly.
- **Military Refund:** In the case of students who are members of an active or reserve military unit and who receive orders compelling a withdrawal from courses, the College shall, upon petition by the affected student, refund the parking fee, health fee, materials fee, Student Activities Fee, entire enrollment fee and non-resident tuition fee unless academic credit is awarded.

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

Cancelled Classes

Classes may be cancelled at the discretion of the College. Students enrolled in such a class will be permitted to enroll in other open classes.

Students who have a class or classes cancelled by the College because of low enrollment are eligible for a full refund of fees paid for those classes. To receive the fee refund, the student must complete and file a Request for Fee Refund at the Bursar's Office. All applicable receipts, cards, and permits must be attached to the request form.

Student Obligations

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

There is a processing fee of \$20 for returned checks or stop payment of checks.

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

ASSESSMENT AND PLACEMENT

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

Placement Tests

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

English Placement

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

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

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

Math Placement

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

Reading Placement

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

Retest Policy

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

Placement Test and Eligibility Time Limits

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

Test Scores and Placement from Other Colleges

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

Appeals Process

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

Ability to Benefit

Students applying for financial aid who have not acquired a high school diploma or GED must perform at a passing level on an Ability To Benefit test. The test is approved for use by the federal government, and passing scores have been established by the Department of Education. Testing is conducted at the Assessment Center. For further information regarding Ability to Benefit regulations, contact the Financial Aid Office.

ORIENTATION – CREDIT STUDENTS

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

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

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

COUNSELING/ADVISEMENT

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

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

EXEMPTION FROM MATRICULATION

Students are exempt from Matriculation requirements if they are:

- A. enrolled in Community Services classes only;
- B. graduates with an Associate or advanced degree from an accredited institution; or
- C. registering only in general interest classes.

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

PRE-COLLEGIATE BASIC SKILLS

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

PREREQUISITES AND ADVISORIES

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

Prerequisite

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

Corequisite

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

Advisory

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

CHALLENGING PREREQUISITES AND COREQUISITES

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

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

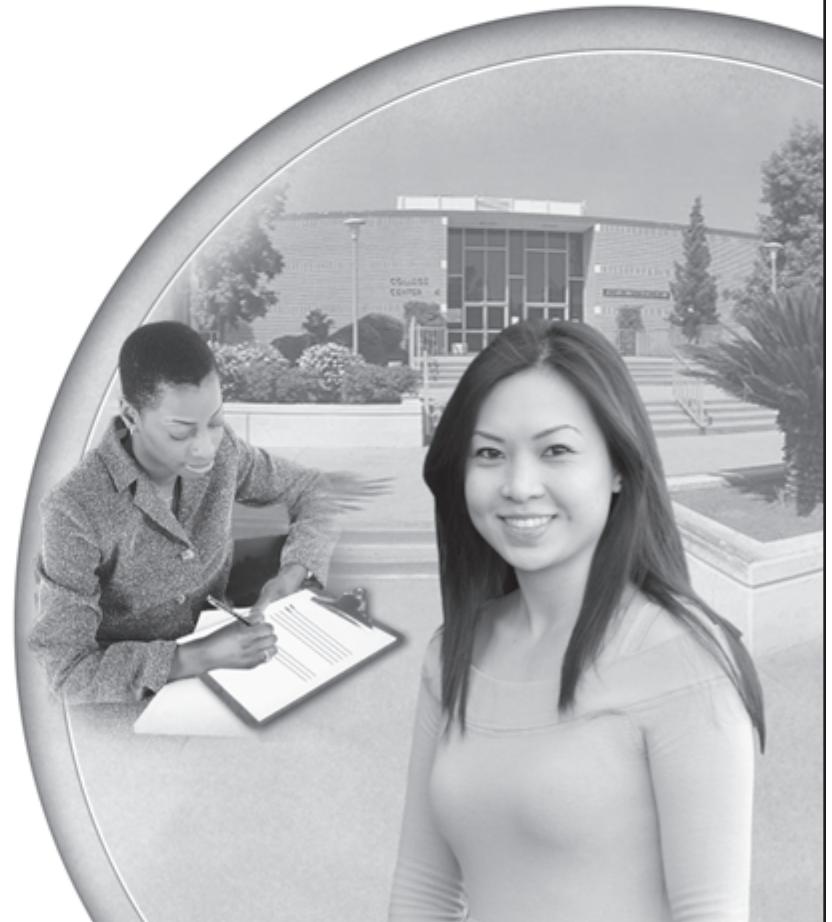
The student must provide appropriate documentation when filing a challenge with the appropriate division office.

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

MATRICULATION

Section 3

Academic Policies and Requirements



ATTENDANCE AND ENROLLMENT

Attendance

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

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

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

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

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

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

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

Auditing Courses

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

Dropping Courses and Withdrawing from the College

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

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

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

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

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

Student Unit Limits

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

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

Repeatable Courses

Certain courses may be taken more than once for credit. If the course is designated as repeatable, the course may be repeated only for the number of times allowable. To determine whether a course is repeatable, refer to Section 10, Course Descriptions, in this *Catalog*.

Repeating Courses Previously Passed

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

Petitions for Exceptional Action

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

Limitations on Repeating Courses

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

permanent academic record will be annotated such that all course work that has been taken and forgiven or repeated will remain legible, insuring a true and complete academic history. Unit credit is only allowed once when repeating a D grade.

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

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

CREDITS AND GRADES

Definition of a Unit of Credit

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

Classification of Students

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

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

Grading System

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

GRADING SCALE		
Evaluative Symbol	Definition	Grade Point Value
A	Excellent	4
B	Good	3
C	Satisfactory	2
D	Passing (less than satisfactory)	1
F	Failing	0
CR	Credit (at least equivalent to a "C" grade. Units awarded are not counted in determining the student's grade point average).	
NC	No-Credit (Equivalent to a "D" or "F" grade. No units awarded, and units are not counted in determining grade point average. No-Credit grades will be considered in probation and dismissal procedures.)	

Incomplete

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

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

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

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

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

Final Examinations

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

"Incomplete" has been given, a copy of the final examination must be filed in the appropriate division office at the close of the semester.

Early Examinations

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

Credit/No Credit Grades

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

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

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

Students are cautioned that upon transfer to baccalaureate institutions, "NC" grades typically are considered to be "F" grades.

Credit by Examination

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

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

Rules and Regulations

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

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

Advanced Placement Examinations in CSU General Education–Breadth Certification

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

ADVANCED PLACEMENT EXAMINATIONS FOR CSU GENERAL EDUCATION–BREADTH REQUIREMENTS	
AP Subject	Number of Units Applicable to General Education–Breadth Requirements for Students Obtaining Full or Subject-Area Certification
Art: History of Art	3 semester units toward Area C1
Biology	3 semester units toward Area B2
Chemistry	6 semester units toward Areas B1 and B3
Economics: Macroeconomics	3 semester units toward Area D2
Economics: Microeconomics	3 semester units toward Area D2
English: English Language & Composition	3 semester units toward Area A2
English: English Literature & Composition	6 semester units toward Areas A2 and C2
French: French Language	6 semester units toward Area C2
French: French Literature	6 semester units toward Area C2
German Language	6 semester units toward Area C2
Government and Politics: United States	3 semester units toward Area D8
Government and Politics: Comparative	3 semester units toward Area D8
History: European History	3 semester units toward Area D6
History: United States History	3 semester units toward Area D6
Latin: Vergil	3 semester units toward Area C2
Latin: Latin Literature	3 semester units toward Area C2
Mathematics: Calculus AB	3 semester units toward Area B4
Mathematics: Calculus BC	3 semester units toward Area B4
Music Theory	3 semester units toward Area C1
Physics B	6 semester units toward Areas B1 and B3
Physics C (mechanics)	3 semester units toward Areas B1 and B3
Physics C (electricity and magnetism)	3 semester units toward Areas B1 and B3
Psychology	3 semester units toward Area D9
Spanish: Spanish Language	6 semester units toward Area C2
Spanish: Spanish Literature	6 semester units toward Area C2
Statistics	3 semester units toward Area B4

for successful completion of an Advanced Placement examination and the applicability of the examination to other graduation requirements. See the table above for specific AP Subjects.

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

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

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

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

Credit for Extra Institutional Learning Philosophical Basis

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

INTERNATIONAL BACCALAUREATE CREDIT FOR GENERAL EDUCATION REQUIREMENTS FOR THE ASSOCIATE DEGREE

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

General Policy Statement

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

The College will accept the recommendations of the American Council on Education in reference to the guide to the Evaluation of Educational Experience Experiences in the Armed Forces and the National Guide to Credit Recommendation for Non-collegiate courses; the College Entrance Examination board in reference to its recommendation of Advanced Placement Examinations, and credit recommendations from other similar nationally recognized academic institutions, including Mt. San Antonio College's policy for comprehensive examinations.

Policy Regulations

- Of the 60 units required for the Associate Degree, at least twenty-four (24) units must be earned in courses that contribute to the grade point average.

- Extra-institutional learning credit will normally not be evaluated unless the credit is necessary for graduation.
- Credit for non-collegiate courses will be awarded only for work applicable toward the Associate Degree. Credit may be granted for upper division courses provided the student has earned less than 60 units at the time the upper division work is attempted.
- To petition for extra-institutional learning credit, a student must have 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.

Credit for Military Training

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

HONORS

Academic Honors

President's List

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

Dean's List

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

Graduation Honors

Graduation honors are awarded as follows:

Academic Distinction

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

Scholastic Honor

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

With Honors

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

Honors Program

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

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

Entrance Requirements

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

Requirements for “Honors Program Graduate” Designation

- Complete six [6] honors courses (18 units) with a minimum 3.2 GPA for honors certification
- Maintain a 3.2 GPA

For additional information about Mt. SAC’s Honors Program, contact the Dean of Instruction at Ext. 5463 or the Honors Program Office at Ext. 4665.

Alpha Gamma Sigma

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

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

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

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

Permanent membership in Alpha Gamma Sigma is an honorary lifetime AGS title for students who have completed 60 degree appropriate units; a minimum of 30 of the total 60 units must have been completed at Mt. SAC. A permanent membership application must be submitted by the graduation petition deadline. To apply students must: a) have a cumulative 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.

Phi Theta Kappa

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

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

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

ACADEMIC STANDARDS**Probation and Dismissal**

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

Academic Probation

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

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

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

Progress Probation

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

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

Four Levels of Probation

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

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

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

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

Clearing Probation

1. **Academic Probation** — When the student’s cumulative grade point average at Mt. San Antonio College is 2.00 or higher, the student shall be cleared from Academic Probation.
2. **Progress Probation** — A student will be cleared from Progress Probation when the student’s cumulative number of units of “A,” “B,” “C,” “D,” or “CR” reaches or exceeds the cumulative number of units of “W,” “I,” and “NC.”

Reinstatement After Dismissal

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

Academic Policies and Requirements

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

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

Appeals Process

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

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

RECORDS

Definition of Educational Records

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

Academic Renewal

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

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

Transcripts

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

Challenge of Educational Records

1. Any student may file a written request with the Records Officer of the District (Director, Admissions and Records) to remove information recorded in the student's records which is alleged to be: 1) inaccurate; 2) an unsubstantiated personal conclusion or inference; 3) a conclusion or inference outside of the observer's area of competence; or 4) not based on the personal observation of the named person with the time and place of the observation of the named person with the time and place of the observation noted.
2. If the student is not satisfied with the determination made by the Director, Admissions and Records, the student may, within thirty (30) days, appeal the decision to the Board of Trustees.
3. Grades assigned by an instructor to indicate the student's performance in a course are not in contest, unless they were assigned by mistake, fraud, bad faith, or incompetency. (Education Code 76224)

Student Services and Student Life

Section 4



Student Services and Student Life

STUDENT SERVICES

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

Admissions and Records Student Services Center, Ext. 4415

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

1. All students must submit an application for admission in order to attend Mt. San Antonio College. The admissions application generates a Permit to Register and establishes a historical student record for each student. Also, transcripts from high school and other colleges must be submitted for prerequisite eligibility checks.
2. All registration is done online via the web at my.mtsac.edu or by telephone at (909) 595-MSAC. Registration instructions can be found in the latest *Schedule of Classes* or online at my.mtsac.edu.
3. Other services provided by Admissions and Records include maintaining student demographic information such as name, address and Mt. SAC student identification numbers, maintaining student academic history, issuing I-20's for International Students, processing Petitions for Exceptional Action, processing transcript and enrollment verification requests, processing graduation and certificate petitions and distributing diplomas and certificates. Admissions and Records is the official custodian of student records and maintains all permanent roll sheets and grade books received from faculty.
4. The Admissions and Records Office also provides the Student Services Kiosks located in the Student Services Building. These kiosks provide unofficial transcripts, final grades, and copies of the Permit to Register. All services available at the kiosk are also available at my.mtsac.edu. To use this service, students must have their Mt. SAC Student Identification number and Personal Identification Number (PIN).

Advising Center Student Services, Ext. 4293

The Advising Center offers a variety of transfer support services including:

- a library of college and university catalogs
- opportunities to meet with university representatives

- a complimentary copy of student transcripts
- computerized course articulation
- scholarship and career information

Students can schedule campus tours or request information on any of Mt. San Antonio College's programs and services. Educational advisors are also available to provide guidance information on transfer preparation, certificate programs, graduation requirements and College policies and regulations.

Assessment Center Student Services Center, Ext. 4265

The Assessment Center administers the College's placement and career assessment program. Services offered are as follows:

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

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

The Bridge Program, Ext. 5392

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

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

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

As part of the Bridge Program, students can choose to be part of the Summer Academy and/or the Freshman Experience.

Bursar's Office and Photo ID, Ext. 4960

The Bursar's Office, located on the lower level of the Student Services Center, is responsible for the collection of credit registration fees and other campus fees including parking permits, transcripts, enrollment verification, production cards and malpractice insurance. The office also processes photo ID cards and refunds credit classes.

CalWORKs (California Work Opportunities and Responsibility to Kids), Ext. 4755

(See Extended Opportunity Programs and Services – EOPS)

Counseling Center Student Services Center, Ext. 4380

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

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

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

Career Placement Services Student Services Center, Ext. 4510

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

Services include:

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

While Mt SAC graduates may return to the Career Placement Office for employment assistance, current students are strongly encouraged to visit Career Placement Services while they are still attending.

Disabled Student Programs & Services (DSP&S), Student Services Center, Ext. 4290

If students have a disability which limits their ability to participate fully and equally in any College instructional program and/or activity, they are encouraged to visit Disabled Student Programs and Services.

A professional will meet with them to determine the extent of their limitations and the special services and accommodations that may be provided for their needs.

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

If students have a doctor's verification that requires them to park in zones designated as "handicapped parking," they are required to apply for a state "Disabled Person" permit and placard from the Department of Motor Vehicles, if they don't already have one. While applying for the placard the student may obtain a special parking permit from DSP&S at no extra cost. This permit must be displayed in addition to the student parking permit which must be purchased. The special parking permit from DSP&S is valid for only one semester.

If students have a current "Disabled Person" permit and placard or a "DP" license plate from the State of California Department of Motor Vehicles, they are not required to purchase a student parking permit. They are allowed to park in any parking space designated as "handicapped parking," any metered space (*at no cost*), or any time-limited space (*without having to observe the time limit specified*). Please ensure that the placard or license plate is displayed properly. DSP&S highly recommends that students visit our department to determine if there are any other services that may be of assistance while attending Mt. San Antonio College.

No exceptions will be made for special parking privileges. A citation and fine will result if these guidelines are not followed. Questions should be directed to DSP&S, Ext. 4290 or Parking and Security, ext. 4555 (*after 4:30 p.m., Ext. 4299*).

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

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

(See Extended Opportunity Programs and Services – EOPS)

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

Extended Opportunity Programs and Services (EOPS), located on the lower level of the Student Services Center, provides access to higher education for students with academic and financial disadvantages and the office of EOPS assists students seeking Re-Entry services as well as those who qualify for CARE. Some of the services offered are:

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

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

- Be a California resident
- Be enrolled as a full-time student (*12 units or more*)
- Have fewer than 70 degree applicable units
- Qualify to receive a Board of Governors' Enrollment Fee Waiver under Method A or B
- Be educationally disadvantaged

CARE (*Cooperative Agencies Resources for Education*) is a support program for EOPS students who are single head of household parents receiving CalWORKs — and provides additional assistance to students who are:

- Eligible for EOPS
- Enrolled in at least 12 units upon acceptance
- Currently receiving AFDC/TANF assistance, with at least one child under 14 years of age
- At least 18 years old, single head of household
- Have applied for financial aid and have a need for child care, transportation, books and supplies, and/or counseling to attend college
- Pursuing a program at Mt. SAC which will lead to a certificate, degree or transfer

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

Financial Aid Student Services Center, Ext. 4450

Financial aid is intended to help students who might not otherwise be able to attend college. Although the primary responsibility for meeting

college costs rests with the student and his or her family, it is recognized that many families have limited resources and are unable to meet the cost of a college education. Financial aid programs have been established to provide assistance for students with documented financial need.

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

All students may be eligible for some form of assistance based on their financial need. The Financial Aid Office, located on the upper level of the Student Services Center building, administers aid programs for eligible applicants. Eligibility criteria for financial aid programs are subject to frequent change. Current information as well as application forms are available in the Financial Aid Office.

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

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

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

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

Student Services and Student Life

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

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

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

Mt. SAC will determine the amount of federal financial aid that a student has earned in accordance with federal law. Recipients of federal programs are subject to the Return of Title IV funds requirements. Students who receive federal financial aid and do not attend any classes will be required to repay all of the funds they have received. Students who withdraw from all classes prior to completing more than 60% of the semester will have their financial aid eligibility recalculated based on the percentage of the semester completed, and will be required to repay any unearned financial aid they have received. At Mt. SAC a student's withdrawal date is:

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

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

In addition, the College participates in the California Community College Board of Governors' Fee Waiver program. This program is available to qualified California residents. The enrollment fee is waived

for eligible students. The student is responsible for paying the remainder of the fees assessed within seven business days of registration, or classes will be dropped. There are three methods to qualify: (1) Temporary Assistance for Needy Families (TANF), Supplemental Security Income (SSI), or General Relief recipient, or (2) Household size/family income, or (3) Financial need as determined by filing the Free Application for Federal Student Aid (FAFSA). Applications for this program are available in the Financial Aid office.

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

Health Services (Building 67B) Student Services Center, Ext. 4400

Medical, personal counseling, nursing, and health education services are provided. Professional health services are provided primarily on an appointment basis. Additional services include laboratory tests, tuberculosis screening, limited prescription medications, immunizations, pregnancy testing, and referrals. First aid services are provided for all students, employees and guests of the College. Please call for an appointment.

International Student Programs Student Services Center, Ext. 4415

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

First Year Experience, Ext. 5392

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

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

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

Re-Entry Services Student Services Center, Ext. 4392

(See Extended Opportunity Programs and Services – EOPS)

Veterans' Affairs Student Services Center, Ext. 4520

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

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

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

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

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

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

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

Section 5

Instruction and Learning Resources



INSTRUCTION

Distance Learning Program

What is Distance Learning?

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

Online Learning Classes:

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

Online-Supported (Hybrid) Classes:

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

For further information about the Distance Learning Program at Mt. San Antonio College, contact the Dean, Library & Learning Resources at **(909) 594-5611**, Ext. 5658 or email to kstern@mtsac.edu.

Study Abroad Program

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

Work Experience Education

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

Student Qualifications

Students participating in Work Experience must:

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

Credits

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

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

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

1. Unless otherwise determined, develop measurable learning objectives approved by the Instructor/ Coordinator and work-site supervisor.
2. If under the age of 18, obtain the written permission of their parents.
3. Faithfully discharge the duties of the on-the-job assignment.
4. Notify the Instructor/Coordinator of any work-site problems or change in status of duties.

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

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

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

LIBRARY AND LEARNING RESOURCES

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

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

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

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

INSTRUCTION AND LEARNING RESOURCES

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

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

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

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

Media Services has over three thousand videos available for student viewing. Students must view the videos in the Media Services center. The media materials are not available for student check-out. Viewing rooms are available on a first-come first-serve basis.

Computer Aided Graphics, Visual Arts and Design Programs

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

ARCHITECTURE & ENGINEERING DESIGN TECHNOLOGY DEPARTMENT

Architectural Technology A.S. Degree & Certificates

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

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

Engineering Design Technology A.S. Degree & Certificates

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

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

<p>Advertising Design & Illustration A.S. Degree</p> <p>Prime Focus: Builds upon the traditional core art courses to provide students with basic skills and concepts utilized in the visual communication industries.</p> <p>Job Market: Advertising design skills are employed any time an image or graphic design needs to be generated for commercial usage.</p>
<p>Aesthetics for Technology Certificate</p> <p>Prime Focus: Provides fundamental design skills and concepts related to art and technology-related industries.</p> <p>Job Market: Skills acquired in this program may be utilized in a variety of visual communication industries including Art, Advertising, and Multimedia.</p>
<p>Animation— (Traditional, 2-D, and 3-D Digital Animation) A.S. Degree & Certificates</p> <p>Prime Focus: An integrated program of Traditional and Digital Animation providing skills for the entertainment arts.</p> <p>Job Market: Supplies skills for a variety of entertainment arts careers including Traditional and Digital Animation, Motion Graphics, Gaming, Special Effects, and Web Animation.</p>
<p>Web Page Design Certificate</p> <p>Prime Focus: To provide students with a course of study that includes the use of technology and design issues in a comprehensive way.</p> <p>Job Market: Web design skills are used any time an organization, business, or individual utilizes the internet for marketing or advertising or as a promotional tool.</p>

COMPUTER INFORMATION SYSTEMS DEPARTMENT

Computer Information Systems A.S. Degree & Certificate

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

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

Computer-Aided Graphics, Visual Arts and Design Programs

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

COMPUTER INFORMATION SYSTEMS DEPARTMENT *(continued)*

Departments offering programs in computer graphics and design are:

- Architecture and Design Department
- Art Department
- Office Technology Department
- Photography Department (PhotoGraphics)

Computer Programming, Computer Security, and Computer Servicing

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

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

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

Job Market: Applications Developer/Programmer, Computer Consultant, Computer Marketing/Sales Rep, Computer Network Technician, Help Desk Support Person, Web Page Designer, Information Systems Specialist, LAN Administrator, Microcomputer Trainer, Network Specialist, Office Systems Manager, On-line Publisher, Programmer, Software Engineer, Software Testing/Quality Assurance Specialist, Tech Support/Customer Service Support, Webmaster. *(See Sections 7 and 8)*

ELECTRONICS & COMPUTER TECHNOLOGY DEPARTMENT

Electronics and Computer Engineering Technology **A.S. Degree & Certificate**

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

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

MATHEMATICS DEPARTMENT

Computer Science/Mathematics **Transfer**

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

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

Desktop Publishing **A.S. Degree & Certificate**

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

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

PHOTOGRAPHICS PROGRAM

Computer Graphic Design/Photography **A.S. Degree & Certificate**

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

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

Photography **A.S. Degree & Certificates**

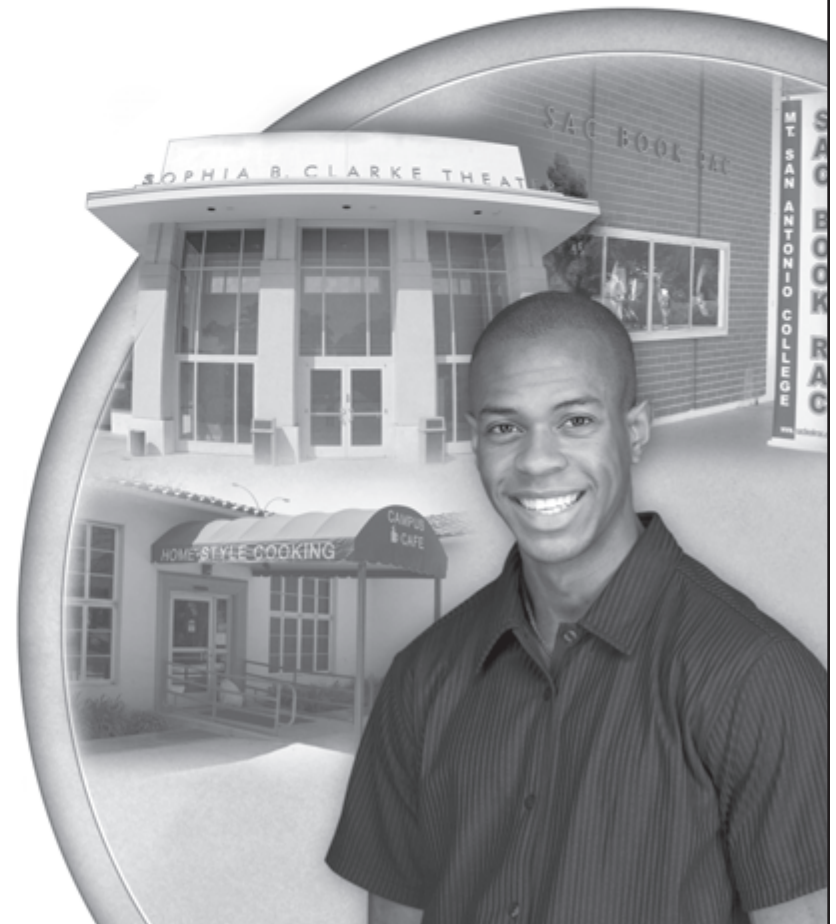
Prime Focus: Offers the full range of introductory to advanced courses. As both an art and technical craft, photography offers a dynamic set of creative challenges to both the person behind the camera and a wide range of technical specialist in related disciplines. The program focuses on development,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

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

INSTRUCTION AND LEARNING RESOURCES

Section 6

Campus Facilities



CAMPUS FACILITIES**Art Gallery
Building 1B, Ext. 4328**

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

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

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

Athletic Facilities, Ext. 4850

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

Auxiliary Services, Building 9A, Ext. 4470

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

- administration and supervision of the fiscal operations of the Associated Students
- collection of campus obligations
- accounting for all loans and scholarship disbursements and collections
- accounting for Mt. SAC Relays, the Cross Country Invitational Meet and the AAF Youth Days
- accounting for campus clubs and trusts
- administration of the Athletic Services Fund
- accounting for the bookstore, Bursar's Office, Dining Services, and Performing Arts
- administration of contracts
- ticket sales for student events
- administration of the ticket booth for the Mt. SAC Relays and athletic events

- limited cashing of personal checks with campus ID
- ordering and distributing faculty caps and gowns
- billing for catering from Dining Services
- billing for students in State Rehabilitation, JTPA, GAIN, ILP, TRA, EOPS, CARE, Vets and BECA Programs
- payroll/Human Resources for all areas of the enterprise
- processing of purchase orders and checks
- preparing daily change funds for all areas of the enterprise
- processing vending machine refunds
- selling Foothill and Metro bus passes

**Bookstore "SacBookRac,"
Building 9A, Ext. 4475**

The bookstore, "SacBookRac," is located in Building 9A on the north end of the campus.

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

Refund Policy

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

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

**Exercise Science/Wellness Center,
Building 27A, North Door, Ext. 4625**

This modern, multi-dimensional facility offers health and lifestyle screening; health, fitness, and performance physical fitness assessments; all levels of aerobic exercise (including step aerobics); circuit/strength training; and cardiorespiratory exercise.

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

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

Farm, Ext. 4540

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

Food Services

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

**Campus Café
Building 8, Ext. 4105**

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

**Common Grounds
Building 8, Ext. 4180**

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

**Mountie Grill
Building 19C, Ext. 4624**

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

Convenience Stores

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

**Mountie Stop
Building 9A, Ext. 4497****Express Stop
Building 16A, Ext. 4142****Quick Stop
Building 40, Ext. 6216****Short Stop
Building 66****Vending Machines
Buildings 4, 7, 9C, 26, 28, 30, 40, 45**

Campus Facilities

Performing Arts Center

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

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

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

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

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

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

Performing Arts Center Box Office

Box Office Phone: (909) 468-4050

Box Office Fax: (909) 468-4031

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

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

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

Planetarium, Ext. 2050

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

Radio Station and Cable TV Station, Ext. 4678

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

Wildlife Sanctuary, Ext. 4425

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

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

Section 7



Programs Leading to an Associates Degree**PROGRAMS OF STUDY LEADING
TO AN ASSOCIATE IN ARTS DEGREE**

Mt. San Antonio College offers six Associate in Arts degrees:

- A.A. Transfer Studies – CSU**
- A.A. Transfer Studies – IGETC**
- A.A. Fine Arts & Humanities**
- A.A. Language Arts & Communication**
- A.A. Natural Sciences & Mathematics**
- A.A. Social & Behavioral Sciences**

The A.A. Transfer Studies, CSU and IGETC, are designed to meet the needs of students planning to transfer to a 4-year college or university. The other four degree options are designed to meet the needs of students interested in graduating with an Associate level college degree by studying specific related disciplines of academic subjects. These students are not intending to pursue a specific occupational major, nor are they necessarily planning to transfer. However, careful educational planning with a counselor or an educational advisor will help to ensure that if a student did decide at a later date to transfer to a university, they would have a solid beginning in the transfer planning process.

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

A.A. TRANSFER STUDIES – CSU

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

A.A. TRANSFER STUDIES – IGETC

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

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

**ASSOCIATE IN ARTS DEGREES –
REQUIRED COURSES****A.A. Fine Arts & Humanities**

Select 18 "Degree Appropriate" units from the following related disciplines:

AHIS	DN-T	HUMA 1	PHIL
ARTB	Foreign	ID 180	PHOT 15
ARTD	Languages	LIT	SIGN
ARTS	HIST	MUS	THTR

A.A. Language Arts & Communication

Select 18 "Degree Appropriate" units from the following related disciplines:

ENGL	JOUR	PHIL 8	R-TV
Foreign	LIT	PHIL 9	SPCH
Languages	PHIL 3	PSYC 5	SIGN

A.A. Natural Sciences & Mathematics

Select 18 "Degree Appropriate" units from the following related disciplines:

AGOR 1	ASTR	MATH	PHYS
ANAT	BIOL	METO	PSYC 1B
ANTH 1	CHEM	MICR	
ANTH 1H	CSCI	NF 25	
ANTH 1L	GEOG	OCEA	
ANTH 3	GEOL	PHSC	

A.A. Social & Behavioral Sciences

Select 18 "Degree Appropriate" units from the following related disciplines:

AGAG 1	BIOL 15	COUN	JOUR 100
AGFR 20	BIOL 15H	EDUC	POLI
ANTH 3	BUSC 1A	GEOG 2	PSYC
ANTH 5	BUSC 1AH	GEOG 2H	SOC
ANTH 22	BUSC 1B	GEOG 30	SPCH 26
ANTH 30	BUSC 1BH	HIST	
ANTH 99	CHLD	JOUR 2, <i>or</i>	

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. 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.
- Spring:** deadline to apply for spring graduation is the end of the ninth week.
- Summer:** deadline to apply for spring graduation is the end of the ninth week.

Students should check the *Schedule of Classes (in Key Dates to Remember)* for specific deadline dates for any given semester. Applications received after the deadline will be processed with the next graduation cycle. Students may apply for graduation one semester prior to completing all required coursework. Once the degree has been conferred, the degree will be posted to the student's academic record and will appear on the transcript. Students will also receive their diplomas in the mail thereafter. If a student is denied graduation, he or she will be informed in writing.

MULTIPLE DEGREES

The Associate in Science degree shall be awarded to those graduates who majored in one of the occupational programs at Mt. San Antonio College. Students may be awarded both an Associate in Science degree and an Associate in Arts degree with the 60 units required for an Associate degree if they have met the requirements for both within the 60 units or earned credit. Each additional degree requires 18 units of 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) twelve [12] units in residence and enrollment at Mt. San Antonio College in the last semester or (2) forty-five [45] units in residence, if the last semester is not at Mt. San Antonio College.

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

ASSOCIATE IN ARTS DEGREE GRADUATION REQUIREMENTS 2006/2007

A.A. Degrees in the following majors:*

Social & Behavioral Sciences
Fine Arts & Humanities
Language Arts & Communication
Natural Science & Mathematics

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

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

Math Competency: (3 units minimum)
This requirement is met by completing one of the following with a grade of "C" or better.

1. Math 61 Plane Geometry, *or*
2. Math 71 Intermediate Algebra, *or*
MATH 71B Intermediate Algebra—Second Half, *or*
3. Completing a more advanced college level mathematics course.
or
4. Obtaining a satisfactory score on the Intermediate Algebra Competency Examination, or the Plane Geometry Competency Examination.

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

General Education Requirements: At least 24 units are required which shall include courses in each of the General Education areas, A through E (see pages 33-34). All courses must be completed with a grade of "C" or better.

A.A. Transfer Studies – CSU*:

Unit Requirement: Sixty (60) baccalaureate level (transferable) units are required for graduation. A letter grade of "C" or better is required for each course required for graduation.

Major Requirement: Completion of CSU G.E. Certification Pattern. (see pages 99-101)

Math Competency: Satisfied by completing CSU G.E. certification of Area B-4. (see page 99)

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

General Education Requirements: Satisfied by completion of CSU G.E. Certification Pattern AND completion of the CSU U.S. History and American Institutions requirement. (see pages 99 - 101)

A.A. Transfer Studies – IGETC*:

Unit Requirement: Sixty (60) baccalaureate level (transferable) units are required for graduation. A letter grade of "C" or better is required for each course required for graduation.

Major Requirement: Completion of IGETC Certification Pattern. (see pages 103 - 104)

Math Competency: Satisfied by completing IGETC certification, Area 2 (see page 103).

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

General Education Requirements: Satisfied by completion of the IGETC Certification Pattern, AND successful completion of Oral Communication requirement, AND the CSU U.S. History and American Institutions graduation requirement, AND completion of local Mt. SAC G.E., Area E (see pages 99 - 101 and 35).

NOTE: The information stated below pertains to all A.A. degree options described above:

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

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

- READ 90 Preparing for College Reading
AMLA 33R American Language Advanced Reading
or obtaining placement into READ 100 on initial Reading placement exam or obtaining a satisfactory score on the Reading Competency Test.

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

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

ASSOCIATE IN SCIENCE DEGREE GRADUATION REQUIREMENTS 2006/2007

Unit Requirement: Sixty (60) associate degree-appropriate units with a letter grade of "C" or better in all courses is required for graduation.

Major Requirement: Satisfied by completing all the required courses in an approved occupational program with a minimum grade of "C" in all courses.

Math Competency: (3 units minimum)
This requirement is met by completing one of the following courses with a grade of "C" or better:

1. AGAG 91 Agricultural Calculations
or
ELMA 65B Mathematics of Electronics
or
MATH 51 Elementary Algebra
or
MATH 51A Elementary Algebra—First Half
and
MATH 51B Elementary Algebra—Second Half
or
MATH 52 Algebra with Applications I
and
MATH 72 Algebra with Applications II
or
MATH 59 Fundamentals of Applied Mathematics
or
MATH 61 Plane Geometry
or
2. Completing a more advanced college level mathematics course with a grade of "C" or better.
or
3. Obtaining a satisfactory score on the Elementary 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.

General Education Requirements: At least 24 units are required which shall include courses in each of the General Education areas, A through E (see pages 33-34). All courses must be completed with a letter grade of "C" or better.

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

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

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

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

- READ 90 Preparing for College Reading
AMLA 33R American Language Advanced Reading
or obtaining placement into READ 100 on initial Reading placement exam or obtaining a satisfactory score on the Reading Competency Test.

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

Programs Leading to an Associates Degree

GENERAL EDUCATION REQUIREMENTS**Philosophy Statement**

The general education component of the associate degree introduces students to the humanities, social sciences, natural sciences, applied sciences, and technology. It exposes students to different areas of study; demands the acquisition and use of reading, writing, and critical thinking skills at appropriate post-secondary levels; imparts a sense of our shared cultural heritage and how to function as responsible, ethical individuals in a complex society; and instills a level of intellectual curiosity and self-awareness conducive to lifelong learning and personal growth.

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 is the distinguishing feature of higher education. It is a broadly-based core of humanistic knowledge and abilities, 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. They provide an understanding of the human condition and of human accomplishments and encourage a lifelong interest in learning.

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, computation, and critical thinking.
2. Improve students' abilities to:
 - communicate oral and written ideas effectively;
 - define problems, design solutions, critically analyze results;
 - work effectively and cooperatively with others;
 - work 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 Math
- C. Arts and Humanities
- D. Social Sciences
- E. Lifelong Understanding and Self-Development

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

A. Communication and Critical Thinking

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

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

B. Science and Mathematics

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

- promote understanding and appreciation of the methodologies and tools of science;
- emphasize the influence of scientific knowledge on the development of civilization;

- impart appreciation and understanding of basic concepts, not just skills;
- offer specific inquiry into mathematical concepts, quantitative reasoning and application. (*See Mt. SAC degree competency requirements.*)

C. Humanities

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

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

D. Social Sciences

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

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

E. Lifelong Understanding and Self-Development

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

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

Adapted from CSU Executive Order 595 and Title 5 Section 40405.1

GENERAL EDUCATION REQUIREMENTS FOR 2006-2007

AREA A:

Communication in the English Language (6 units):

Select two [2] courses from the following:

- ENGL 1A Freshman Composition, *or*
- ENGL 1AH Freshman Composition – Honors *and*
- SPCH 1A Public Speaking, *or*
- SPCH 1AH Public Speaking – Honors

AREA B:

The Physical Universe and Life (3 units):

Select one [1] course from the Physical Sciences or Life Sciences:

PHYSICAL SCIENCES

- ASTR 5 Introduction to Astronomy
- ASTR 5L Astronomical Observing Laboratory
- ASTR 7 Geology of the Solar System
- ASTR 8 Introduction to Stars, Galaxies, and the Universe
- CHEM 10 Chemistry for Allied Health Majors
- CHEM 20 Introductory Organic and Biochemistry
- CHEM 40 Introduction to General Chemistry
- CHEM 50 General Chemistry I
- CHEM 50H General Chemistry I – Honors
- CHEM 51 General Chemistry II
- GEOG 1 Elements of Physical Geography
- GEOG 1L Physical Geography Laboratory
- GEOG 1H Elements of Physical Geography – Honors
- GEOG 1HL Physical Geography Laboratory – Honors
- GEOL 1 Physical Geology
- GEOL 7 Geology of California
- GEOL 8 Earth Science
- GEOL 8H Earth Science – Honors
- GEOL 8L Earth Science Laboratory
- GEOL 9 Environmental Geology
- GEOL 10 Natural Disasters
- GEOL 13 Evolution of the Earth
- METO 3 Weather and the Atmospheric Environment
- METO 3L Weather and the Atmospheric Environment Laboratory
- OCEA 10 Introduction to Oceanography
- OCEA 10H Introduction to Oceanography – Honors
- OCEA 10L Introduction to Oceanography Laboratory
- PHSC 7 Physical Science

- PHSC 7L Physical Science Laboratory
- PHYS 1 Physics
- PHYS 2AG General Physics
- PHYS 2BG General Physics
- PHYS 4A Engineering Physics

LIFE SCIENCES

- AGOR 1 Horticultural Science
- ANAT 10A Introductory Human Anatomy
- ANAT 10B Introductory Human Physiology
- ANAT 35 Human Anatomy
- ANAT 36 Human Physiology
- ANTH 1 Biological Anthropology
- ANTH 1H Biological Anthropology – Honors
- ANTH 1L Biological Anthropology Laboratory
- BIOL 1 General Biology
- BIOL 2 Plant and Animal Biology
- BIOL 3 Ecology and Field Biology
- BIOL 4 Biology for Majors
- BIOL 4H Biology for Majors – Honors
- BIOL 6 Humans and the Environment
- BIOL 6L Humans and the Environment Laboratory
- BIOL 17 Neurobiology and Behavior
- BIOL 20 Marine Biology
- BIOL 21 Marine Biology Laboratory
- MICR 1 Principles of Microbiology
- MICR 22 Microbiology
- PSYC 1B Biological Psychology

AREA C:

Arts and Humanities (6 units):

Select two [2] courses, six [6] units minimum, with at least one [1] course from the Arts and one [1] from Humanities:

ARTS

- AHIS 1 Understanding the Visual Arts, *or*
- ARTB 1 Understanding the Visual Arts
- AHIS 1H Understanding the Visual Arts – Honors
- AHIS 2 Topics in Visual Art and Culture
- AHIS 2H Topics in Visual Art and Culture – Honors
- AHIS 3 History of Women and Gender in Art
- AHIS 3H History of Women and Gender in Art – Honors
- AHIS 4 History of Western Art: Prehistoric Through Gothic
- AHIS 4H History of Western Art: Prehistoric Through Gothic – Honors
- AHIS 5 History of Western Art: Renaissance Through Modern

GENERAL EDUCATION REQUIREMENTS FOR 2006-2007 (continued)

- AHIS 5H History of Western Art: Renaissance Through Modern – Honors
- AHIS 6 History of Modern Art
- AHIS 6H History of Modern Art – Honors
- AHIS 9 History of Asian Art
- AHIS 11 History of African, Oceanic, and Native American Art
- AHIS 12 History of Pre-Columbian Art
- AHIS 12H History of Pre-Columbian Art – Honors
- ARTB 14 Basic Studio Arts
- ARTD 15A Drawing: Beginning
- ARTD 20 Design: Two-Dimensional
- ARTD 25A Painting: Beginning
- ARTS 22 Design: Three-Dimensional
- ARTS 30A Ceramics: Beginning
- ARTS 40A Sculpture: Beginning
- DN-T 20 History and Appreciation of Dance
- ID 180 History of Interior Architecture and Furnishings I
- MUS 7 Fundamentals of Music
- MUS 11A Music Literature Survey
- MUS 11B Music Literature Survey
- MUS 12 History of Jazz
- MUS 13 Introduction to Music Appreciation
- MUS 13H Introduction to Music Appreciation – Honors
- MUS 14 World Music
- MUS 14B American Folk Music
- MUS 15 Rock Music History and Appreciation
- PHOT 15 History of Photography
- SPCH 4 Oral Interpretation of Literature
- THTR 9 Introduction to Theatre Arts
- THTR 10 History of Theatre Arts
- THTR 11 Principles of Acting I

HUMANITIES

- CHIN 1 Elementary Chinese
- CHIN 2 Continuing Elementary Chinese
- CHIN 3 Intermediate Chinese
- CHIN 4 Continuing Intermediate Chinese
- ENGL 1B English – Introduction to Literary Types
- ENGL 1BH English – Introduction to Literary Types – Honors
- FRCH 1 Elementary French
- FRCH 2 Continuing Elementary French
- FRCH 3 Intermediate French
- FRCH 4 Continuing Intermediate French
- FRCH 5 Advanced French

- FRCH 6 Continuing Advanced French
- FRCH 60 French Culture Through Cinema
- GERM 1 Elementary German
- GERM 2 Continuing Elementary German
- GERM 3 Intermediate German
- GERM 4 Intermediate German
- *HIST 1 History of the U.S.
- *HIST 3 History of World Civilization
- *HIST 3H History of World Civilization – Honors
- *HIST 4 History of World Civilization
- *HIST 4H History of World Civilization – Honors
- *HIST 7 History of the U.S.
- *HIST 7H History of the U.S. – Honors
- *HIST 8 History of the U.S.
- *HIST 8H History of the U.S. – Honors
- *HIST 10 History of Asia
- *HIST 11 History of Asia
- *HIST 19 History of Mexico
- *HIST 30 History of the African American
- *HIST 31 History of the African American
- *HIST 35 History of Africa
- *HIST 36 Women in American History – Beyond the Stereotypes
- *HIST 39 California History
- *HIST 40 History of the Mexican American
- HUMA 1 The Humanities
- ITAL 1 Elementary Italian
- ITAL 2 Continuing Elementary Italian
- ITAL 3 Intermediate Italian
- ITAL 4 Continuing Intermediate Italian
- ITAL 5 Advanced Italian
- ITAL 6 Continuing Advanced Italian
- ITAL 60 Italian Culture Through Cinema
- JAPN 1 Elementary Japanese
- JAPN 2 Continuing Elementary Japanese
- JAPN 3 Intermediate Japanese
- JAPN 4 Continuing Intermediate Japanese
- JAPN 5 Advanced Japanese
- LIT 1 Early American Literature
- LIT 2 Modern American Literature
- LIT 6A Survey of English Literature
- LIT 6B Survey of English Literature
- LIT 11A World Literature
- LIT 11B World Literature
- LIT 14 Introduction to Modern Poetry
- LIT 15 Introduction to Cinema
- LIT 20 African American Literature

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

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

Programs Leading to an Associates Degree

GENERAL EDUCATION REQUIREMENTS FOR 2006-2007 (continued)

LIT 25	Contemporary Mexican American Literature
LIT 33	Images of Women in Literature
LIT 35	Science Fiction and Fantasy Survey
LIT 36	Introduction to Mythology
LIT 40	Children's Literature
LIT 46	The Bible as Literature: Old Testament
LIT 47	The Bible as Literature: New Testament
PHIL 5	Introduction to Philosophy
PHIL 5H	Introduction to Philosophy – Honors
PHIL 12	Ethics
PHIL 12H	Ethics – Honors
PHIL 15	Major World Religions
PHIL 15H	Major World Religions – Honors
PHIL 20A	History of Western Philosophy
PHIL 20B	History of Western Philosophy
SIGN 101	American Sign Language 1
SIGN 202	American Deaf Culture
SPAN 1	Elementary Spanish
SPAN 2	Continuing Elementary Spanish
SPAN 3	Intermediate Spanish
SPAN 4	Continuing Intermediate Spanish
SPAN 11	Spanish for the Spanish Speaking
SPAN 12	Continuing Spanish for the Spanish Speaking
SPAN 25	Spanish Literature

AREA D:
Social, Political and Economic Institutions
(6 units): U.S. History and American Institutions
Select one [1] course from the following:

*HIST 1	History of the U.S.
*HIST 7	History of the U.S.
*HIST 7H	History of the U.S. – Honors
*HIST 8	History of the U.S.
*HIST 8H	History of the U.S. – Honors
*HIST 30	History of the African American
*HIST 31	History of the African American
*HIST 36	Women in American History – Beyond the Stereotypes
*HIST 40	History of the Mexican American
POLI 1	Political Science
POLI 1H	Political Science – Honors
POLI 25	Politics of the Mexican American
POLI 35	African American Politics

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

AGAG 1	Food Production, Land Use and Politics – A Global Perspective
AGFR 20	Conservation of Natural Resources
ANTH 3	Archaeology
ANTH 5	Principles of Cultural Anthropology
ANTH 22	General Cultural Anthropology
ANTH 30	The Native American
BUSC 1A	Principles of Economics – Macroeconomics
BUSC 1AH	Principles of Economics – Macroeconomics – Honors
BUSC 1B	Principles of Economics – Microeconomics
BUSC 1BH	Principles of Economics – Microeconomics – Honors
CHLD 1	Child, Family, and Community
CHLD 10	Child Growth and Development
CHLD 10H	Child Growth and Development – Honors
GEOG 2	Human Geography
GEOG 2H	Human Geography – Honors
GEOG 5	World Regional Geography
GEOG 8	The Urban World
GEOG 30	Geography of California
*HIST 3	History of World Civilization
*HIST 3H	History of World Civilization – Honors
*HIST 4	History of World Civilization
*HIST 4H	History of World Civilization – Honors
*HIST 10	History of Asia
*HIST 11	History of Asia
*HIST 19	History of Mexico
*HIST 35	History of Africa
*HIST 39	California History
JOUR 100	Mass Media and Society
JOUR 107	Race, Gender, and Mass Media Images
POLI 2	Political Science
POLI 5	Political Science Theory
POLI 9	Introduction to International Relations
PSYC 1A	Introduction to Psychology
PSYC 1AH	Introduction to Psychology – Honors
PSYC 19	Abnormal Psychology
*PSYC 25	The Psychology of Women
SOC 1	Sociology
SOC 1H	Sociology – Honors
SOC 2	Sociology
SOC 2H	Sociology – Honors

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

GENERAL EDUCATION REQUIREMENTS FOR 2006-2007 (continued)

SOC 4	Introduction to Gerontology
SOC 5	Introduction to Criminology
SOC 14	Marriage and the Family
SOC 15	Child Development
SOC 20	Sociology of Ethnic Relations
SOC 20H	Sociology of Ethnic Relations – Honors
SPCH 7	Intercultural Communication
SPCH 26	Interpersonal Communication
SPCH 26H	Interpersonal Communication – Honors

AREA E:
Lifelong Understanding and Self-Development
(3 units):

Select one [1] course from the following:

AD 3	Chemical Dependency: Intervention, Treatment and Recovery
BIOL 5	Contemporary Health Issues
BIOL 13	Human Reproduction, Development and Aging

BIOL 15	Human Sexuality
BIOL 15H	Human Sexuality – Honors
CHLD 10	Child Growth and Development
*CHLD 10H	Child Growth and Development – Honors
*COUN 5	Career/Life Planning
FCS 41	Life Management
LEAD 55	Exploring Leadership
NF 10	Nutrition for Personal Health and Wellness
NF 25	Essentials of Nutrition
NF 25H	Essentials of Nutrition – Honors
NF 28	Cultural and Ethnic Foods
PE 34	Fitness for Living
PSYC 14	Developmental Psychology
*PSYC 25	The Psychology of Women
PSYC 26	Psychology of Sexuality
PSYC 33	Psychology for Effective Living

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

ALPHABETICAL LISTING — ASSOCIATE IN SCIENCE DEGREE (A.S.)

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

A	B - C		
Accounting	36	Business Management	39
Administrative Assistant	36	Business Retail Management	39
Advertising Design and Illustration	36	Chemical Laboratory Technician	39
Agri-Business	36	Child Development	39
Agri-Technology	36	Commercial Flight	40
Air Conditioning and Refrigeration	37	Computer and Networking Technology	40
Airframe and Aircraft Powerplant Maintenance Technology – Day	37	Computer Graphics Design/Photography	40
Airframe and Aircraft Powerplant Maintenance Technology – Evening	37	Computer Network Administration and Security Management	40
Alcohol/Drug Counseling	38	Computer Programmer – C++	41
Animation	38	Computer Programmer – Database Management Systems	41
Architectural Technology	38	Computer Programmer – Telecommunications	41
Aviation Science	39	Computer Programmer – Visual Basic	41
		Construction Inspection	42
		Correctional Sciences	42

ALPHABETICAL LISTING — ASSOCIATE IN SCIENCE DEGREE (A.S.) (continued)

Desktop Publishing	42	Manufacturing Technology	50
Educational Paraprofessional	42	Marketing Management	50
Electronics and Computer Engineering Technology	42	Mental Health Technology – Psychiatric Technician	51
Emergency Medical Services	43	Nursing	51
Engineering Design Technology	43	Ornamental Horticulture	52
Equipment Technology	44	Paralegal/Legal – Bankruptcy Specialty	53
Escrow Management	44	Paralegal/Legal – Corporations/ Business Specialty	53
Family and Consumer Sciences	44	Paralegal/Legal – Criminal Specialty	54
Fashion Design	44	Paralegal/Legal – Family Law Specialty	54
Fashion Merchandising	45	Paralegal/Legal – Landlord/Tenant Specialty	54
Fire Technology	45	Park & Sports Turf Management	55
Fire Technology – Administration	45	Pet Science	55
Fire Technology – Administrative Communications	45	Photography	55
Fire Technology – Administrative Law	45	Physical Education	55
Fire Technology – Fire Management	45	Psychiatric Technician to RN	56
Fire Technology – Fire Prevention	46	Radio Broadcasting: Behind the Scenes	57
Fire Technology – Fire Training	46	Radio Broadcasting: On the Air	57
Fire Technology – Private Fire Service	46	Radiologic Technology	57
Floral Design	46	Real Estate	58
General Business	47	Real Estate Appraisal	58
Histologic Technician Training	47	Recreation	58
Horse Ranch Management	47	Registered Veterinary Technology	59
Hospitality and Restaurant Management	47	Respiratory Therapy	59
Human Resource Management	48	Sign Language/Interpreting	60
Interior Design	48	Small Business Management	60
Interior Design – Kitchen and Bath Design	48	Television Production	60
International Business	48	Welding	60
Law Enforcement	49		
Licensed Vocational Nurse to RN	49		
Livestock Management	50		

LISTING BY INSTRUCTIONAL DIVISION — ASSOCIATE IN SCIENCE DEGREE (A.S.)

Arts Division	Chemical Laboratory Technician	39
Advertising Design and Illustration	Equipment Technology	44
Animation	Floral Design	46
Computer Graphics Design/Photography	Histologic Technician Training	47
Photography	Horse Ranch Management	47
Radio Broadcasting: Behind the Scenes	Livestock Management	50
Radio Broadcasting: On the Air	Ornamental Horticulture	52
Television Production	Park & Sports Turf Management	55
Business & Economic Development Division	Pet Science	55
Accounting	Registered Veterinary Technology	59
Administrative Assistant	Physical Education Division	
Business Management	Physical Education	55
Business Retail Management	Recreation	58
Child Development	Technology & Health Division	
Computer Network Administration & Security Management	Air Conditioning and Refrigeration	37
Computer Programmer – C++	Airframe and Aircraft Powerplant Maintenance Technology – Day	37
Computer Programmer – Database Management Systems	Airframe and Aircraft Powerplant Maintenance Technology – Evening	37
Computer Programmer – Telecommunications	Alcohol/Drug Counseling	38
Computer Programmer – Visual Basic	Architectural Technology	38
Desktop Publishing	Aviation Science	39
Escrow Management	Commercial Flight	40
Family and Consumer Sciences	Computer and Networking Technology	40
Fashion Design	Construction Inspection	42
Fashion Merchandising	Correctional Sciences	42
General Business	Electronics and Computer Engineering Technology	42
Hospitality and Restaurant Management	Emergency Medical Services	43
Human Resource Management	Engineering Design Technology	43
Interior Design	Fire Technology	45
Interior Design – Kitchen and Bath Design	Fire Technology – Administration	45
International Business	Fire Technology – Administrative Communications	45
Marketing Management	Fire Technology – Administrative Law	45
Paralegal/Legal – Bankruptcy Specialty	Fire Technology – Fire Management	45
Paralegal/Legal – Corporations/ Business Specialty	Fire Technology – Fire Prevention	46
Paralegal/Legal – Criminal Specialty	Fire Technology – Fire Training	46
Paralegal/Legal – Family Law Specialty	Fire Technology – Private Fire Service	46
Paralegal/Legal – Landlord/Tenant Specialty	Law Enforcement	49
Real Estate	Licensed Vocational Nurse to RN	49
Real Estate Appraisal	Manufacturing Technology	50
Small Business Management	Mental Health Technology – Psychiatric Technology	51
Humanities & Social Sciences Division	Nursing	51
Educational Paraprofessional	Psychiatric Technician to RN	56
Sign Language/Interpreting	Radiologic Technology	57
Natural Sciences Division	Respiratory Therapy	59
Agri-Business	Welding	60
Agri-Technology		

Programs Leading to an Associates Degree

Accounting

Accounting and Management Department Major 20502

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

Requirements for the Major

Required courses:

BUSA 7	Principles of Accounting – Financial	5.0	CSU, UC
BUSA 8	Principles of Accounting – Managerial	5.0	CSU, UC
BUSA 21	Cost Accounting	4.0	
BUSA 52	Intermediate Accounting	3.0	
BUSA 53	Ten-Key Calculations, <i>or</i>	2.0	
BUSA 81	Work Experience in Accounting	1.0	
BUSA 58	Federal Income Tax Law	3.0	
BUSA 70	Payroll and Tax Accounting	3.0	
BUSA 75	Using Microcomputers in Financial Accounting, <i>or</i>	1.0	
BUSA 81	Work Experience in Accounting	1.0	
BUSA 76	Using Microcomputers in Managerial Accounting, <i>or</i>	1.0	
BUSA 81	Work Experience in Accounting	1.0	
BUSM 20	Principles of Business	3.0	CSU, UC
BUSO 25	Business Communications	3.0	CSU
CISB 15	Microcomputer Applications	4.0	CSU, UC
Total Units		36.0 - 37.0	

Administrative Assistant

Office Technology Department Major 20514

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

Requirements for the Major

Required core courses:

BUSO 5	Business English	3.0	
BUSO 25	Business Communications	3.0	CSU
BUSO 26	Oral Communications for Business	3.0	
COMP 2	Intermediate Computer Keyboarding	4.0	
COMP 12	Office Computer Applications, <i>or</i>	4.0	CSU, UC
CISB 15	Microcomputer Applications	4.0	CSU, UC
COMP 20	Word for the Business Professional	4.0	
COMP 28	Office Management Skills	3.0	
COMP 50	Desktop Presentations using PowerPoint	4.0	CSU
COMP 68	Transcription Techniques	3.0	
PLUS			
Select one (1) course from:			
COMP 11	Internet Research for Business	2.0	CSU
COMP 13	Using Web Page Software	4.0	CSU
COMP 18	Data Entry	3.0	
COMP 60	Desktop Publishing with InDesign or Pagemaker	4.0	CSU
Total Units		33.0 - 35.0	

Advertising Design and Illustration

Art Department Major 21003

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

Requirements for the Major

Required courses:

ARTC 60	Graphic Design: Lettering and Typography	3.0	CSU, UC
ARTC 66	Portfolio	3.0	
ARTC 70	Computer Graphics: Introduction	3.0	CSU
ARTC 165	Illustration	3.0	CSU
ARTC 171	Computer Graphics 2: Layout and Design with QuarkXpress	3.0	CSU
ARTD 15A	Drawing: Beginning	3.0	CSU, UC

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

PLUS

Select one (1) course from:

AHIS 5	History of Western Art: Renaissance Through Modern, <i>or</i>	3.0	CSU, UC
AHIS 5H	History of Western Art: Renaissance Through Modern – Honors	3.0	CSU, UC
AHIS 6	History of Modern Art, <i>or</i>	3.0	CSU, UC
AHIS 6H	History of Modern Art – Honors	3.0	CSU, UC

Total Units 30.0

Recommended Electives:

AHIS 4	History of Western Art: Prehistoric Through Gothic		
ANIM 172	Motion Graphics with After Effects		
ANIM 175	Web Animation with Flash		
ARTC 77	Computer Graphics: Illustration		
ARTD 16	Drawing: Perspective		
ARTD 45	Printmaking: Silk-Screening		
ARTS 22	Design: Three-Dimensional		
ARTZ 18	Exhibition Design: Art Gallery and Museum Studies		
PHOT 10	Beginning Photography		

Agri-Business

Agricultural Sciences Department Major 20114

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

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

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

Requirements for the Major

Required courses:

AGAB 20	Microcomputer Applications in Agriculture	3.0	CSU, UC
AGAG 1	Food Production, Land Use and Politics – A Global Perspective	3.0	CSU, UC
AGAG 91	Agricultural Calculations	3.0	
AGAN 1	Animal Science	3.0	CSU, UC
AGOR 1	Horticultural Science	3.0	CSU
AGOR 32	Landscaping and Nursery Management	3.0	CSU
AGPE 70	Pet Shop Management	3.0	
BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 60	Human Relations in Business	3.0	CSU
BUSM 61	Business Organization and Management	3.0	CSU
BUSM 66	Small Business Management	3.0	
BUSS 36	Principles of Marketing	3.0	CSU

Total Units 36.0

Agri-Technology

Agricultural Sciences Department Major 20101

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

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

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

Requirements for the Major

Required courses:

AGAB 20	Microcomputer Applications in Agriculture	3.0	CSU, UC
AGAG 1	Food Production, Land Use and Politics – A Global Perspective	3.0	CSU, UC
AGAG 91	Agricultural Calculations	3.0	
AGAN 1	Animal Science	3.0	CSU, UC
AGOR 1	Horticultural Science	3.0	CSU
AGOR 32	Landscaping and Nursery Management	3.0	CSU
AGOR 56	Engine Diagnostics	3.0	CSU
AGOR 71	Landscape Construction Fundamentals	3.0	CSU

PLUS

Select three (3) courses from:

AGFR 20	Conservation of Natural Resources	3.0	CSU, UC
AGLI 14	Swine Production	3.0	CSU
AGLI 16	Horse Production	4.0	CSU, UC
AGLI 17	Sheep Production	3.0	CSU
AGLI 30	Beef Production	3.0	CSU
AGOR 12	Environmental Vegetable Gardening	3.0	CSU, UC
AGOR 24	Integrated Pest Management	3.0	CSU
AGOR 62	Landscape Irrigation – Design and Installation	3.0	CSU
AGPE 70	Pet Shop Management	3.0	
AGPE 71	Canine Management	3.0	

Total Units 33.0 - 34.0

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

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

Requirements for the Major

Required courses:

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

**Airframe and Aircraft Powerplant Maintenance Technology — Day
Aircraft Maintenance Technology & Manufacturing Department
Major 20911**

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

This program offers a day (*full-time*) or evening (*part-time*) program option. The only difference between

the two options is the course numbering and time required to complete the program. Day program courses AIRM 65A and 65B are equivalent to evening program courses AIRM 95A, 95B, 96A, 96B, 97A, 97B, 98A, and 98B. Day program courses AIRM 66A and 66B are equivalent to evening program courses AIRM 90A, 90B, 91A, 91B, 92A, 92B, 93A, and 93B. The evening program courses are offered in 9-week modules.

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

Requirements for the Major

Required courses:

AIRM 65A	Aircraft Powerplant Maintenance Technology	12.0	CSU
AIRM 65B	Aircraft Powerplant Maintenance Technology	12.0	
AIRM 66A	Airframe Maintenance Technology	12.0	CSU
AIRM 66B	Airframe Maintenance Technology	12.0	
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	Aviation Materials and Processes	1.5	
AIRM 73	Aviation Welding	1.5	
Total Units		63.0	

Recommended Electives:

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

The Airframe and Aircraft Powerplant Maintenance Technology faculty recommend that students complement their studies with selected elective courses chosen from the list above. Students should meet with a professor of Airframe and Aircraft Powerplant Maintenance Technology to help them determine which electives best suit their career plans.

**Airframe and Aircraft Powerplant Maintenance Technology — Evening
Aircraft Maintenance Technology & Manufacturing Department
Major 20951**

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

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

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

Programs Leading to an Associates Degree

Requirements for the Major

Required courses:

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

Recommended Electives:

AIRM 74	Aircraft Maintenance Technology – Work Experience	
AIRM 80	Lab Studies in Aircraft Maintenance Technology	
AIRM 81	Lab Studies in Aircraft Maintenance Technology	

EDT 12	Technical Engineering Drawing II	
ELEC 90	Survey of Electronics	
MFG 70	Technical Mathematics – Manufacturing Applications	
PHYS 1	Physics	

**Alcohol/Drug Counseling
Public Services Department
Major 22101**

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

Requirements for the Major

Required core courses:

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

Required skill courses:

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

Required field work courses:

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

PLUS

Select six (6) units from:

CHLD 10	Child Growth and Development, <i>or</i>	3.0	CSU, UC
CHLD 10H	Child Growth and Development – Honors	3.0	CSU, UC
PSYC 1A	General Psychology, <i>or</i>	3.0	CSU, UC
PSYC 1AH	General Psychology – Honors	3.0	CSU, UC
PSYC 19	Abnormal Psychology	3.0	CSU, UC

SOC 1	Sociology, <i>or</i>	3.0	CSU, UC
SOC 1H	Sociology – Honors	3.0	CSU, UC
SOC 14	Marriage and the Family	3.0	CSU, UC
SOC 15	Child Development	3.0	CSU, UC

Total Units 40.0

Eligibility Requirements:

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

Selection Procedures:

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

Special Instructions:

Restricted electives must be taken prior to enrollment in Field Experience, and can be taken in conjunction with core and skills courses.

Animation

**Art Department
Major 21006**

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

Requirements for the Major

Required courses:

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

PLUS

Select two (2) courses from:

ANIM 117	Animation Background Layout	3.0	CSU
ANIM 120	Script Development for Animation	3.0	
ANIM 132	Modeling, Texture Mapping and Lighting	3.0	
ANIM 175	Web Animation with Flash	3.0	
ARTD 16	Drawing: Perspective	3.0	CSU, UC

Total Units 36.0

Recommended Electives:

AHIS 4	History of Western Art: Prehistoric Through Gothic	
AHIS 5	History of Western Art: Renaissance Through Modern	
ANIM 107	Figure in Motion	
ANIM 109	Advanced Principles of Animation	
ANIM 111	Animal Drawing	
ANIM 118	Background Painting	
ANIM 120	Script Development for Animation	
ANIM 134	Dynamic Digital Environments	
ANIM 135	Visual Effects II: Particle Systems	
ANIM 148	Demo-Reel	
ARTD 25A	Painting: Beginning	

Architectural Technology

**Architecture and Engineering
Design Department
Major 20201**

This program is intended to prepare students to enter the field of architecture and related areas. The student is provided with an option of direct employment into the field or preparation for transfer to the professional school of architecture. The student will be required to develop both design and working drawing portfolios. Current technology and computer (CADD) skills are integrated into the program. A certificate program is also available.

Requirements for the Major

Required courses:

ARCH 10	Design I – Elements of Design	3.0	CSU
ARCH 11	Architectural Drawing	3.0	CSU, UC
ARCH 12	Architectural Materials and Specifications	3.0	CSU
ARCH 13	Architectural Illustration	3.0	CSU, UC
ARCH 14	Building and Zoning Codes	3.0	
ARCH 15	Architectural Working Drawings – I	3.0	CSU

ARCH 16	Basic CAD and Computer Application	4.0	CSU, UC
ARCH 18	Architectural Computer Aided Design Elements	3.0	
ARCH 21	Design II – Architectural Design	3.0	CSU
ARCH 23	Architectural Presentations	3.0	CSU
ARCH 26	Architectural CAD Working Drawings	3.0	
ARCH 27	Design III – Environmental Design	3.0	CSU, UC
ARCH 28	Architectural CAD 3-D Illustration and Animation	3.0	CSU
ARCH 29	Design IV – Advanced Project	3.0	CSU
EDT 20	Technical Descriptive Geometry	3.0	CSU
Total Units		46.0	

Recommended Electives:

AHIS 1	Understanding the Visual Arts
ARCH 89	Architectural Work Experience
ARTD 15A	Drawing: Beginning
ARTD 20	Design: Two Dimensional
ARTS 22	Design: Three-Dimensional
EDT 26	Civil Engineering Technology and CAD
ID 130	Applied Color and Design Theory
INSP 67	Reading Construction Drawings
INSP 70	Elements of Construction
INSP 71	Construction Estimating

ARTA, ARTC, ARTD, ARTS, and ID courses are recommended for transfer portfolios.

Aviation Science

Aeronautics, Transportation and Travel Department Major 20910

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

Requirements for the Major

Required courses:

AERO 23	Primary Pilot Ground School	4.0	CSU
AERO 24	Navigation	3.0	CSU
AERO 26	Aviation Weather	3.0	CSU
AERO 27	Aviation Safety and Human Factors	3.0	CSU

AERO 29	Federal Aviation Regulations	2.0	CSU
AERO 30	Instrument Ground School	3.0	CSU
AIRT 41	Aircraft Recognition and Performance	2.0	CSU
AIRT 42	Air Traffic Control Environment	3.0	CSU
AIRT 43	Air Traffic Control Team Skills	1.5	CSU
CISB 11	Computer Information Systems	3.5	CSU, UC
TRAN 17	Air Transportation	3.0	CSU
Total Units		31.0	

Recommended Electives:

AERO 25	Commercial Pilot Ground School
AERO 28	Aircraft and Engines
AERO 40	Flight
AERO 40L	Flight Laboratory
BUSM 60	Human Relations in Business

Business — Retail Management Accounting and Management Department Major 20509

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

Requirements for the Major

Required courses:

BUSA 7	Principles of Accounting – Financial, <i>or</i>	5.0	CSU, UC
BUSA 72	Bookkeeping – Accounting	5.0	
BUSA 11	Fundamentals of Accounting	3.0	
BUSM 60	Human Relations in Business	3.0	CSU
BUSM 61	Business Organization and Management	3.0	CSU
BUSM 62	Human Resource Management	3.0	
BUSO 25	Business Communications	3.0	CSU
BUSO 26	Oral Communications for Business	3.0	
BUSS 36	Principles of Marketing	3.0	CSU
CISB 15	Microcomputer Applications	4.0	CSU, UC
FASH 62	Retail Store Management and Merchandising, <i>or</i>	3.0	CSU
BUSS 50	Retail Store Management and Merchandising	3.0	
Total Units		33.0	

Business Management

Accounting and Management Department Major 20506

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

Requirements for the Major

Required courses:

BUSA 7	Principles of Accounting – Financial	5.0	CSU, UC
BUSM 10	Principles of Continuous Quality Improvement	3.0	
BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 51	Principles of International Business	3.0	
BUSM 60	Human Relations in Business	3.0	CSU
BUSM 61	Business Organization and Management	3.0	CSU
BUSM 62	Human Resource Management	3.0	
BUSS 36	Principles of Marketing	3.0	CSU
CISB 15	Microcomputer Applications	4.0	CSU, UC
Total Units		30.0	

Recommended Electives:

BUSM 81	Work Experience in Business, <i>or</i>
BUSM 82	Work Experience in Business, <i>or</i>
BUSM 83	Work Experience in Business, <i>or</i>
BUSM 84	Work Experience in Business
BUSM 85	Special Issues in Business, <i>or</i>
BUSS 85	Special Issues in Marketing

Chemical Laboratory Technician

Biological Sciences Department Major 20950

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

Requirements for the Major

Required courses:

BUSM 10	Principles of Continuous Quality Improvement	3.0	
CHEM 20	Introductory Organic and Biochemistry	5.0	CSU, UC
CHEM 50	General Chemistry I	5.0	CSU, UC
CHEM 51	General Chemistry II	5.0	CSU, UC
CHEM 60	Quantitative Chemical Analysis	5.0	CSU, UC
CHEM 75	Instrumental Analysis	5.0	
CHMT 1	Introduction to Chemical Laboratory Technology	3.0	
CHMT 8	Work Experience in Chemical Technology	1.0	
CHMT 9	Work Experience in Chemical Technology	2.0	

PLUS

Select six (6) units from:

CHMT 5	Elementary Principles of Chemical Processing	2.0	CSU
MICR 22	Microbiology	4.0	CSU, UC
PHIL 12	Ethics, <i>or</i>	3.0	CSU, UC
PHIL 12H	Ethics – Honors	3.0	CSU, UC
SPCH 26	Interpersonal Communication, <i>or</i>	3.0	CSU, UC
SPCH 26H	Interpersonal Communication – Honors	3.0	CSU, UC

Total Units 40.0

Child Development

Family and Consumer Sciences Department Major 21315

This program introduces students to the study of young children and their education and prepares students for employment following graduation in the field of Child Development. An Associate in Science Degree and nine certificates are offered. Students desiring a Bachelor's Degree (*transfer program*) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

Required courses:

CHLD 1	Child, Family and Community	3.0	CSU, UC
CHLD 5	Principles/Practices in Child Development Programs	3.0	CSU
CHLD 6	Survey of Child Development Curriculum	3.0	CSU

Programs Leading to an Associates Degree

CHLD 10	Child Growth and Development, <i>or</i>	3.0	CSU, UC
CHLD 10H	Child Growth and Development – Honors	3.0	CSU, UC
CHLD 64	Health, Safety and Nutrition of Young Children	3.0	
CHLD 66	Early Childhood Development Observation	2.0	CSU
CHLD 66L	Early Childhood Development Observation Laboratory	1.0	CSU
CHLD 67	Early Childhood Development Participation	2.0	CSU
CHLD 67L	Early Childhood Development Participation Laboratory	1.0	CSU
CHLD 68	Children with Special Needs	3.0	CSU
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	

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

Recommended Electives:

CHLD 50	Multicultural Education: Anti-Bias Perspective
CHLD 51	Early Literacy in Child Development
CHLD 61	Language Arts & Art Media for Young Children
CHLD 62	Music and Motor Development for Young Children
CHLD 63	Creative Sciencing and Math for Young Children
CHLD 71A	Administration of Child Development Programs
CHLD 71B	Management/Marketing/Personnel for ECD Programs
CHLD 72	Teacher, Parent, and Child Relationships
CHLD 73	Infant/Toddler Care and Development

Commercial Flight

Aeronautics, Transportation and Travel Department Major 20912

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

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

Requirements for the Major

Required courses:

AERO 23	Primary Pilot Ground School	4.0	CSU
AERO 24	Navigation	3.0	CSU
AERO 25	Commercial Pilot Ground School	3.0	CSU
AERO 26	Aviation Weather	3.0	CSU
AERO 27	Aviation Safety and Human Factors	3.0	CSU
AERO 28	Aircraft and Engines	3.0	CSU
AERO 29	Federal Aviation Regulations	2.0	CSU
AERO 30	Instrument Ground School	3.0	CSU
TRAN 17	Air Transportation	3.0	CSU
Total Units		27.0	

Recommended Electives:

AERO 40	Flight
AERO 40L	Flight Laboratory
AERO 41	Basic Flight Simulator Laboratory
AERO 58	Flight Instructor Ground School
AIRT 41	Aircraft Recognition and Performance
CISB 11	Computer Information Systems

Computer and Networking Technology

Electronics and Computer Technology Department Major 20725

The Computer and Networking Technology Major and Certificates are intended to prepare students to enter the computer and networking fields as service technicians. The program provides foundations in basic electronics, computer servicing, operating systems, network/server servicing, and network security. Skills are developed so that students can provide customer service in the installation, software configuration, maintenance, operation, troubleshooting and repair of computers and their associated networking software/hardware. In addition to acquiring specialized skills in computer and networks servicing, the student will be prepared to take the A+, Network+, Server+, and Security+ certification tests offered at testing centers throughout the country. These certifications are CompTIA sponsored and are worldwide-recognized industry benchmarks for the

computer and networking technician. Further, the student will have the requisite skills upon which to build in order to seek additional IT certification.

Requirements for the Major

Required courses:

CNET 50	PC Servicing	4.0	
CNET 52	PC Operating Systems	4.0	
CNET 54	PC Troubleshooting	4.0	
CNET 56	Computer Networks	4.0	
CNET 60	A+ Certification Preparation	3.0	
CNET 62	Network+ Certification Preparation	3.0	
CNET 64	Server + Certification Preparation	3.0	
CNET 66	Security + Certification Preparation	3.0	
ELEC 11	Technical Applications in Microcomputers, <i>or</i>	3.0	CSU
CISB 15	Microcomputer Applications	4.0	CSU, UC
ELEC 50A	Electronics Theory	2.0	CSU
ELEC 50AL	Electronics Laboratory	1.0	CSU
ELEC 50B	Electronics Theory	2.0	CSU
ELEC 50BL	Electronics Laboratory	1.0	CSU
ELEC 56	Digital Electronics	3.0	CSU
ELEC 56L	Digital Electronics Laboratory	1.0	CSU
ELEC 60	Customer Relations for the Technician	1.0	
Total Units		42.0 - 43.0	

Recommended Electives:

CISN 51	Cisco CCNA Networking Fundamentals and Routing
CISS 25	Network Security and Firewalls
ELEC 74	Microprocessor Systems
ELEC 74L	Microprocessor Systems Laboratory
ELMA 65A	Mathematics of Electronics
ELMA 65B	Mathematics of Electronics

Computer Graphics Design/Photography

Photographics Department Major 21005

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

catalog of the institution they wish to attend to address transferability of courses.

Requirements for the Major

Required courses:

GRAP 1	Computer Graphics Lab	1.0	
GRAP 10	Photo Editing with Photoshop	3.0	
GRAP 12	Advanced Photo Editing with Photoshop	3.0	
GRAP 14	Digital Color Management	3.0	
GRAP 16	Digital Image Design with Illustrator & Freehand	3.0	
GRAP 18	Advanced Image Design – 3D Modeling Techniques	3.0	
GRAP 20	Applying Photos and Images in Multimedia	3.0	
GRAP 28	Digital Portfolio	2.0	
PHOT 10	Beginning Photography	3.0	CSU, UC
PHOT 17	Photocommunication	3.0	
Total Units		27.0	

Recommended Electives:

AHIS 1	Understanding the Visual Arts, <i>or</i>
ARTB 1	Understanding the Visual Arts
COMP 10	Operating the Macintosh Computer
GRAP 24	Work Experience in Computer Graphics
PHOT 1	Laboratory Studies: Black and White Photography
PHOT 2	Laboratory Studies: Color Photography
PHOT 4	Digital Cameras and Composition
PHOT 15	History of Photography

Computer Network Administration and Security Management

Computer Information Systems Department Major 20701

Computer Network Administration and Security Management is a two-year program leading to the Associate in Science (A.S.) Degree. It prepares individuals for employment in the computer/information technology field in such positions as network administrator and security management administrator.

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

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

Requirements for the Major

Required courses:

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

PLUS

Select one (1) course from:

CISB 11	Computer Information Systems	3.5	CSU, UC
CISN 21	Windows Operating System	4.0	CSU
CISN 31	Linux Operating System	4.0	CSU
CISN 34	LINUX Networking and Security	4.0	CSU
CISN 41	Novell Netware Systems Administration	4.0	CSU

Total Units 28.5 - 29.0

**Computer Programmer — C++
Computer Information Systems Department
Major 20704**

The Computer Information Systems major is a two-year program leading to the Associate in Science (A.S.) Degree. It prepares individuals for employment in the computer field in such positions as application development, systems analysis, and telecommunications.

The courses in Computer Information Systems emphasize the development of applications in a business environment. They introduce the latest technologies including development of graphical user interfaces using object-oriented methodologies and client/server applications.

The program is designed to prepare students for employment following graduation. Students wishing a Bachelor's Degree (*transfer program*) should meet with a counselor or advisor to discuss transferability of courses. Additional recommended courses for transfer are BUSA 8 and BUSL 18.

Coursework includes a list of core courses and additional courses for each option.

The object oriented C++ language is available on many platforms. It is used extensively in the development of applications on microcomputers and is known for its power and flexibility.

Requirements for the Major

Required core courses:

BUSA 7	Principles of Accounting – Financial	5.0	CSU, UC
CISB 11	Computer Information Systems	3.5	CSU, UC
CISB 15	Microcomputer Applications	4.0	CSU, UC
CISM 11	Systems Analysis and Design	3.5	CSU, UC
CISM 14	Computer Information Systems Seminar	4.0	

CISM 21	Client/Server Architecture, <u>or</u>	4.0	
CISP 21	Programming in Java	4.0	CSU, UC

Plus the following courses:

CISD 11	Database Management – Microcomputers	4.0	CSU
CISN 21	Windows Operating System	4.0	CSU
CISP 31	Programming in C++	4.0	CSU, UC
CISP 34	Advanced C++ Programming	4.0	CSU, UC

Total Units 40.0

**Computer Programmer —
Database Management Systems**

**Computer Information Systems Department
Major 20706**

The Computer Information Systems major is a two-year program leading to the Associate in Science (A.S.) Degree. It prepares individuals for employment in the computer field in such positions in application development, systems analysis, and telecommunications.

The courses in Computer Information Systems emphasize the development of applications in a business environment. They introduce the latest technologies including development of graphical user interfaces using object-oriented methodologies and client/server applications.

The program is designed to prepare students for employment following graduation. Students wishing a Bachelor's Degree (*transfer program*) should meet with a counselor or advisor to discuss transferability of courses. Additional recommended courses for transfer are BUSA 8 and BUSL 18.

Coursework includes a list of core courses and additional courses for each option.

This option concentrates on the design, development, and maintenance of relational databases on micro-computers. Applications are developed using power-user and programming techniques.

Requirements for the Major

Required core courses:

BUSA 7	Principles of Accounting – Financial	5.0	CSU, UC
CISB 11	Computer Information Systems	3.5	CSU, UC
CISB 15	Microcomputer Applications	4.0	CSU, UC
CISM 11	Systems Analysis and Design	3.5	CSU, UC
CISM 14	Computer Information Systems Seminar	4.0	
CISM 21	Client/Server Architecture	4.0	

Plus the following courses:

CISD 11	Database Management – Microcomputers	4.0	CSU
CISD 14	Advanced Database Management – Microcomputers, <u>or</u>	4.0	
CISD 21	SQL Server	4.0	
CISD 31	Database Management	4.0	
CISD 32	Oracle Forms and Reports	4.0	
CISD 40	Database Design	2.0	
CISD 50	Web Based Applications with PL/SQL	4.0	CSU

Total Units 46.0

**Computer Programmer —
Telecommunications
Computer Information Systems Department
Major 20708**

The Computer Information Systems major is a two-year program leading to the Associate in Science (A.S.) Degree. It prepares individuals for employment in the computer field in such positions as application development, systems analysis, and telecommunications.

The courses in Computer Information Systems emphasize the development of applications in a business environment. They introduce the latest technologies, including development of graphical user interfaces using object-oriented methodologies and client/server applications.

The program is designed to prepare students for employment following graduation. Students wishing a Bachelor's Degree (*transfer program*) should meet with a counselor or advisor to discuss transferability of courses. Additional

Course work includes a list of core courses and additional courses for each option.

The network option focuses on the communication of data between systems. Topics include network infrastructure, protocols, and the Internet.

Requirements for the Major

Required core courses:

BUSA 7	Principles of Accounting – Financial	5.0	CSU, UC
CISB 11	Computer Information Systems	3.5	CSU, UC
CISB 15	Microcomputer Applications	4.0	CSU, UC
CISM 11	Systems Analysis and Design	3.5	CSU, UC
CISM 14	Computer Information Systems Seminar	4.0	
CISM 21	Client/Server Architecture	4.0	

Plus the following courses:

CISN 11	Telecommunications/ Networking Fundamentals	4.0	CSU
CISN 14	Advanced Telecommunications	4.0	
CISN 41	Novell Netware Systems Administration, <u>or</u>	4.0	CSU
CISN 24	Microsoft NT Network System Administration	4.0	CSU
CISW 11	Introduction to Internet Technologies	4.0	CSU

Total Units 40.0

**Computer Programmer —
Visual Basic
Computer Information Systems Department
Major 20709**

The Computer Information Systems major is a two-year program leading to the Associate in Science (A.S.) Degree. It prepares individuals for employment in the computer field in such positions in application development, systems analysis, and telecommunications.

The courses in Computer Information Systems emphasize the development of applications in a business environment. They introduce the latest technologies including development of graphical user interfaces using object-oriented methodologies and client/server applications.

The program is designed to prepare students for employment following graduation. Students wishing a Bachelor's Degree (*transfer program*) should meet with a counselor or advisor to discuss transferability of courses. Additional recommended courses for transfer are BUSA 8 and BUSL 18.

Programs Leading to an Associates Degree

Coursework includes a list of core courses and additional courses for each option.

Visual Basic is a leading development tool in the Windows environment and in client/server applications. This objected-based language is used to develop graphical user interfaces and to customize Windows.

Requirements for the Major

Required core courses:

BUSA 7	Principles of Accounting – Financial	5.0	CSU, UC
CISB 11	Computer Information Systems	3.5	CSU, UC
CISB 15	Microcomputer Applications	4.0	CSU, UC
CISM 11	Systems Analysis and Design	3.5	CSU, UC
CISM 14	Computer Information Systems Seminar	4.0	
CISM 21	Client/Server Architecture	4.0	

Plus the following courses:

CISD 11	Database Management – Microcomputers	4.0	CSU
CISN 21	Windows Operating System	4.0	CSU
CISP 11	Basic Programming	4.0	CSU, UC
CISP 14	Advanced Basic Programming	4.0	CSU, UC

Total Units 40.0

Construction Inspection

Architecture and Engineering Design Department Major 20920

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

Requirements for the Major

Required courses:

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

Total Units 18.0

Recommended Electives:

ARCH 11	Architectural Drawing
ARCH 15	Architectural Working Drawings – I
INSP 67	Reading Construction Drawings

Correctional Sciences

Public Services Department Major 22103

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

Requirements for the Major

Required courses:

ADJU 68	Administration of Justice Report Writing	3.0	
CORS 10	Introduction to Correctional Sciences	3.0	CSU
CORS 15	Control and Supervision of the Offender	3.0	
CORS 20	Correctional Law	3.0	
CORS 25	Probation and Parole	3.0	
CORS 30	Ethnic Relations in Corrections	3.0	

PLUS

Select four (4) courses from:

ADJU 1	The Administration of Justice System	3.0	CSU, UC
ADJU 2	Principles and Procedures of the Justice System	3.0	CSU
ADJU 20	Principles of Investigation	3.0	CSU
ADJU 38	Narcotics Investigation	3.0	
ADJU 59	Street Gangs and Law Enforcement	3.0	
CORS 35	Interviewing and Counseling in Corrections	3.0	
CORS 40	Crime and Delinquency	3.0	
CORS 45	The Violent Offender	3.0	

Total Units 30.0

Recommended Electives:

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

Desktop Publishing

Office Technology Department Major 20711

This program is intended to prepare students for employment following graduation. Training in a variety of computer skills is emphasized. This program will afford career opportunities in businesses desiring desktop publishing skills or in starting your own business. Students desiring a Bachelor's Degree (*transfer program*) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

Required courses:

BUSO 5	Business English	3.0	
COMP 1A	Computer Keyboarding, <i>or</i>	2.0	CSU
COMP 1	Computer Keyboarding	4.0	CSU
COMP 11	Internet Research for Business	2.0	CSU
COMP 60	Desktop Publishing with InDesign or Pagemaker, <i>or</i>	4.0	CSU
COMP 62	Desktop Publishing with QuarkXpress	4.0	
COMP 63	Adobe Illustrator for Desktop Publishers, <i>or</i>	4.0	
COMP 64	Desktop Publishing Seminar	2.5	
COMP 65	Modifying Images for Desktop Publishing, <i>or</i>	4.0	
GRAP 10	Photo Editing with Photoshop	3.0	

PLUS

Select one (1) course from:

ARTD 20	Design: Two Dimensional	3.0	CSU, UC
BUSO 25	Business Communications	3.0	CSU
BUSO 26	Oral Communications for Business	3.0	
COMP 13	Using Web Page Software	4.0	CSU
COMP 50	Desktop Presentations using PowerPoint	4.0	CSU

Total Units 19.5 - 25.0

Educational Paraprofessional

Psychology and Education Department Major 22117

This degree program in the field of education prepares paraprofessionals in a variety of areas, emphasizing working with children to enhance their learning development. Graduates will be able to assist classroom teachers in working with K-12 students, including students with special needs. This associate degree

certifies that paraprofessionals are "highly qualified" according to current federal legislation.

Requirements for the Major

Required courses:

CHLD 1	Child, Family and Community	3.0	CSU, UC
CHLD 10	Child Growth and Development, <i>or</i>	3.0	CSU, UC
PSYC 14	Developmental Psychology	3.0	CSU, UC
CHLD 68	Children with Special Needs	3.0	CSU
EDUC 10	Introduction to Education	3.0	CSU, UC
EDUC 16	Aspects and Issues in Teaching Service Learning	3.0	CSU, UC
ENGL 1A	Freshman Composition	3.0	CSU, UC
MATH 71	Intermediate Algebra	5.0	

Total Units 23.0

Recommended Electives:

CHLD 51	Early Literacy in Child Development
CHLD 64	Health, Safety and Nutrition of Young Children
LIT 40	Children's Literature
PE 3	First Aid and CPR

Electronics and Computer Engineering Technology

Electronics and Computer Technology Department Major 20906

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

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

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

Requirements for the Major
Required courses:

ELEC 11	Technical Applications in Microcomputers	3.0	CSU
ELEC 12	Computer Simulation and Troubleshooting	2.0	
ELEC 50A	Electronics Theory	2.0	CSU
ELEC 50AL	Electronics Laboratory	1.0	CSU
ELEC 50B	Electronics Theory	2.0	CSU
ELEC 50BL	Electronics Laboratory	1.0	CSU
ELEC 51	Electronic Devices Theory	3.0	CSU
ELEC 51L	Electronic Devices Laboratory	1.0	CSU
ELEC 53	Communications Circuits Theory	3.0	
ELEC 53L	Communications Circuits Laboratory	1.0	
ELEC 54A	Industrial Circuits Theory	3.0	CSU
ELEC 54AL	Industrial Circuits Laboratory	1.0	CSU
ELEC 54B	Industrial Electronic Systems	2.0	CSU
ELEC 54BL	Industrial Electronic Systems Laboratory	1.0	CSU
ELEC 55	Microwave Communications	3.0	
ELEC 55L	Microwave Communications Laboratory	1.0	
ELEC 56	Digital Electronics	3.0	CSU
ELEC 56L	Digital Electronics Laboratory	1.0	CSU
ELEC 61	Electronic Assembly and Fabrication	2.0	CSU
ELEC 74	Microprocessor Systems	3.0	CSU
ELEC 74L	Microprocessor Systems Laboratory	1.0	CSU
ELMA 65A	Mathematics of Electronics	2.0	CSU
ELMA 65B	Mathematics of Electronics	2.0	CSU
Total Units		44.0	

Recommended Electives:

CISN 41	Novell/SUSE Linux Enterprise Server Administration
CISP 11	Basic Programming
CISP 31	Programming in C++
COMP 1A	Computer Keyboarding

EDT 11	Technical Engineering Drawing I
ELEC 76	Radio Telephone Communications
PHYS 2AG	General Physics

Emergency Medical Services
Medical Services Department
Major 21210

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

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

Requirements for the Major
Required courses:

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

Total Units 37.0

Recommended Electives:

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

The Emergency Medical Services faculty recommend that students 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 of Completion for the Paramedic Program. Students are then eligible for licensure by taking and passing both the National Registry Exam and County Paramedic accreditation exam.

Application Requirements and Entrance Procedures

Application Requirements:

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

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

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

Indicate in the mailing address the program for which 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

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

Entrance Procedure:

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

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

Engineering Design Technology
Architecture and Engineering
Design Department
Major 20913

This curriculum is recommended for those who wish to become an engineering technician, CADD operator/designer or drafter in fields related to engineering, tool design, electronics, manufacturing, structural steel, civil, piping, aerospace, 3-D modeling, illustration, and computer animation. It provides fundamental knowledge of manufacturing processes as they relate to design problems and the techniques required by industry for design, presentation, detail, and assembly working drawings.

This program is intended to prepare students for employment following completion of courses or for retraining and upgrading skills. This program also offers transfer opportunities in related majors. Students desiring a Bachelor's Degree (*transfer program*) should consult with department faculty and a counselor or advisor to develop an individualized plan of transferable courses and math requirements.

Programs Leading to an Associates Degree

Requirements for the Major

Required courses:

EDT 11	Technical Engineering Drawing I	3.0	CSU
EDT 12	Technical Engineering Drawing II	3.0	CSU
EDT 14	Mechanical Design – Geometric Dimensioning and Tolerancing	3.0	CSU
EDT 16	Basic CAD and Computer Applications	4.0	CSU
EDT 18	Engineering CAD Applications	4.0	CSU
EDT 20	Technical Descriptive Geometry	3.0	CSU
EDT 24	Engineering CAD 3-D Solids and Surfaces	3.0	CSU
EDT 26	Civil Engineering Technology and CAD	3.0	CSU
EDT 28	Engineering CAD 3-D Illustration/Animation	3.0	CSU
ELEC 50A	Electronics Theory	2.0	CSU
ELEC 50AL	Electronics Laboratory	1.0	CSU
ELEC 50B	Electronics Theory	2.0	CSU
ELEC 50BL	Electronics Laboratory	1.0	CSU
MFG 11	Manufacturing Processes I	2.0	CSU

Total Units 37.0

Recommended Electives:

EDT 89	Engineering Design Technology Work Experience
ENGR 8	Properties of Materials

Equipment Technology

Agricultural Sciences Department Major 20118

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

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

Requirements for the Major

Required courses:

AGAG 1	Food Production, Land Use and Politics – A Global Perspective	3.0	CSU, UC
AGAG 59	Work Experience in Agriculture, <i>or</i>	1.0	
AGAG 60	Work Experience in Agriculture, <i>or</i>	2.0	
AGAG 61	Work Experience in Agriculture, <i>or</i>	3.0	
AGAG 62	Work Experience in Agriculture	4.0	
AGOR 51	Tractor and Landscape Equipment Operations	3.0	CSU
AGOR 52	Hydraulics	3.0	CSU
AGOR 53	Small Engine Repair I	3.0	CSU
AGOR 54	Small Engine Repair II	3.0	CSU
AGOR 55	Diesel Engine Repair	3.0	CSU
AGOR 56	Engine Diagnostics	3.0	CSU
AGOR 57	Power Train Repair	3.0	CSU
AGOR 71	Landscape Construction Fundamentals	3.0	CSU
AGOR 72	Landscape Hardscape Applications	3.0	CSU
CISB 15	Microcomputer Applications	4.0	CSU, UC

Total Units 35.0 - 38.0

Escrow Management

Business Administration Department Major 20511

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

Requirements for the Major

Required courses:

BUSA 7	Principles of Accounting – Financial, <i>or</i>	5.0	CSU, UC
BUSA 72	Bookkeeping – Accounting	5.0	
BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 60	Human Relations in Business	3.0	CSU
BUSM 66	Small Business Management	3.0	
BUSO 25	Business Communications	3.0	CSU
BUSR 50	Real Estate Principles	3.0	CSU
BUSR 51	Legal Aspects of Real Estate	3.0	
BUSR 53	Real Estate Finance	3.0	

BUSR 76	Escrow Procedures I	3.0	
BUSR 77	Escrow Procedures II	3.0	
CISB 15	Microcomputer Applications	4.0	CSU, UC
COMP 1	Computer Keyboarding	4.0	CSU

Total Units 40.0

Recommended Electives:

BUSA 8	Principles of Accounting – Managerial
BUSL 18	Business Law, <i>or</i>
BUSL 18H	Business Law – Honors
BUSM 62	Human Resource Management
BUSO 5	Business English
BUSR 52	Real Estate Practice, <i>or</i>
BUSR 52D	Real Estate Practice Work Experience
BUSR 57	Income Tax Aspects of Real Estate Investments
PSYC 1A	Introduction to Psychology, <i>or</i>
PSYC 1AH	Introduction to Psychology – Honors

Family and Consumer Sciences

Family and Consumer Sciences Department Major 21309

This program provides students with the basic skills associated with the field of family and consumer sciences, which includes the needs of the home, the family, and its individual members. Students wishing a Bachelor's Degree (*transfer program*) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

Required courses:

CHLD 10	Child Growth and Development, <i>or</i>	3.0	CSU, UC
CHLD 10H	Child Growth and Development – Honors	3.0	CSU, UC
FASH 10	Clothing Fundamentals	3.0	CSU
FASH 15	Fashion Strategies	3.0	CSU
FASH 17	Textiles	3.0	CSU, UC
FCS 41	Life Management	3.0	CSU
FCS 80	Financial Planning, <i>or</i>	3.0	CSU
BUSA 71	Financial Planning	3.0	CSU
ID 100	Fundamentals of Interior Design	3.0	CSU
NF 20	Principles of Foods with Lab, <i>or</i>	3.0	CSU
NF 62	Meal Management	3.0	CSU
NF 25	Essentials of Nutrition, <i>or</i>	3.0	CSU, UC
NF 25H	Essentials of Nutrition – Honors	3.0	CSU, UC
NF 28	Cultural and Ethnic Foods	3.0	CSU, UC

Total Units 30.0

Recommended Electives:

CHLD 1	Child, Family and Community
FASH 12	Advanced Clothing
ID 105	Interior Design Studio I
ID 130	Applied Color and Design Theory

Fashion Design

Family and Consumer Sciences Department Major 21320

Exciting employment opportunities are available in both fashion design and costume design. In Southern California, the apparel industry and the entertainment industry support the largest number of employees and contribute significantly to the economy of the region. Expand your creative talents with this challenging major and find a career of your dreams. Students desiring a Bachelor's Degree should consult with a counselor or advisor and the transfer institution.

Requirements for the Major

Required courses:

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

Total Units 39.0

Recommended Electives:

FASH 90	Field Studies
FASH 91	Field Studies – New York
FASH 92	Field Studies – Fashion Capitals
FCS 41	Life Management

FASH 20, FASH 23, FASH 90, FASH 91, and FASH 95 may be taken two times for credit.

Fashion Merchandising

Family and Consumer Sciences Department Major 21308

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

Requirements for the Major

Required courses:

FASH 8	Introduction to Fashion	3.0	CSU
FASH 9	History of Costume and Fashion	3.0	CSU
FASH 10	Clothing Fundamentals	3.0	CSU
FASH 15	Fashion Strategies	3.0	CSU
FASH 17	Textiles	3.0	CSU, UC
FASH 30	Fashion Design and Product Development I	3.0	
FASH 62	Retail Store Management and Merchandising, <i>or</i>	3.0	CSU
BUSS 50	Retail Store Management and Merchandising	3.0	CSU
FASH 63	Advertising and Promotion, <i>or</i>	3.0	CSU
BUSS 33	Advertising and Promotion	3.0	CSU
FASH 66	Visual Merchandising Display	3.0	CSU

Total Units 27.0

Recommended Electives:

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

FASH 90, FASH 91 and FASH 92 may be taken two times for credit.

Fire Technology

Fire Technology Department Major 22105

The Fire Science major has been developed to offer pre-employment education for the undergraduate who

desires to enter the field of fire science. It also provides the employed firefighter an opportunity for a professional education. Students intending to pursue a Bachelor's Degree (*transfer program*) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

Required courses:

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

PLUS

Select two (2) courses from:

EMT 90	Emergency Medical Technician I	9.0	
FIRE 7	Fire Fighting Tactics and Strategy	3.0	CSU
FIRE 8	Fire Company Organization and Management	3.0	CSU
FIRE 9	Fire Hydraulics	3.0	CSU
FIRE 10	Arson and Fire Investigation	3.0	CSU
FIRE 11	Fire Apparatus and Equipment	3.0	CSU
FIRE 12	Wildland Fire Control	4.0	CSU
FIRE 86	Basic Fire Academy	12.0	
PE-F 53	Physical Training for the Basic Fire Academy	2.5	CSU

Total Units 23.5 - 39.0

Recommended Electives:

FIRE 20	Fire Instructor 1A
FIRE 21	Fire Instructor 1B
FIRE 30	Fire Management 1
FIRE 40	Fire Prevention 1A
FIRE 41	Fire Prevention 1B
FIRE 50	Fire Command 1A
FIRE 51	Fire Command 1B
FIRE 60	Fire Investigation 1A
FIRE 61	Fire Investigation 1B
PE-F 50	Physical Skills Preparation for Administration of Justice and Fire Technology, <i>or</i>
PE-F 51	Agility Testing Preparation for Administration of Justice and Fire Technology, <i>or</i>
PE-F 52	Fitness and Conditioning for Administration of Justice, Fire Technology, and Forestry
SPAN 66	Spanish for Fire and Police Personnel

Fire Technology — Administration

Fire Technology Department Major 22106

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

Requirements for the Major

Required courses:

BUSA 7	Principles of Accounting – Financial	5.0	CSU, UC
CISB 11	Computer Information Systems	3.5	CSU, UC
CISP 11	Basic Programming	4.0	CSU, UC
FIRE 1	Fire Protection Organization	3.0	CSU
FIRE 8	Fire Company Organization and Management	3.0	CSU
FIRE 30	Fire Management 1	2.0	

Total Units 20.5

Recommended Electives:

FIRE 2	Fire Prevention Technology
FIRE 40	Fire Prevention 1A
FIRE 41	Fire Prevention 1B
SPAN 66	Spanish for Fire and Police Personnel

Fire Technology — Administrative Communications

Fire Technology Department Major 22107

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

Requirements for the Major

Required courses:

BUSA 7	Principles of Accounting – Financial	5.0	CSU, UC
CISB 11	Computer Information Systems	3.5	CSU, UC
FIRE 1	Fire Protection Organization	3.0	CSU
FIRE 8	Fire Company Organization and Management	3.0	CSU

FIRE 20	Fire Instructor 1A	2.0
FIRE 21	Fire Instructor 1B	2.0

Total Units 18.5

Recommended Electives:

FIRE 2	Fire Prevention Technology
FIRE 30	Fire Management 1
FIRE 40	Fire Prevention 1A
FIRE 41	Fire Prevention 1B
SPAN 66	Spanish for Fire and Police Personnel

Fire Technology — Administrative Law

Fire Technology Department Major 22108

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

Requirements for the Major

Required courses:

BUSA 7	Principles of Accounting – Financial	5.0	CSU, UC
CISB 11	Computer Information Systems	3.5	CSU, UC
FIRE 1	Fire Protection Organization	3.0	CSU
FIRE 2	Fire Prevention Technology	3.0	CSU
FIRE 8	Fire Company Organization and Management	3.0	CSU
FIRE 40	Fire Prevention 1A	2.0	
FIRE 41	Fire Prevention 1B	2.0	

Total Units 21.5

Fire Technology — Fire Management

Fire Technology Department Major 22109

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

Programs Leading to an Associates Degree

Requirements for the Major

Required courses:

FIRE 1	Fire Protection Organization	3.0	CSU
FIRE 2	Fire Prevention Technology	3.0	CSU
FIRE 3	Fire Protection Equipment and Systems	3.0	CSU
FIRE 4	Building Construction for Fire Protection	3.0	CSU
FIRE 5	Fire Behavior and Combustion	3.0	CSU
FIRE 6	Hazardous Materials/ICS	3.0	
Plus the following courses:			
FIRE 7	Fire Fighting Tactics and Strategy	3.0	CSU
FIRE 8	Fire Company Organization and Management	3.0	CSU
FIRE 10	Arson and Fire Investigation	3.0	CSU
FIRE 20	Fire Instructor 1A	2.0	
FIRE 21	Fire Instructor 1B	2.0	
FIRE 30	Fire Management 1	2.0	
FIRE 50	Fire Command 1A	2.0	
Total Units		35.0	

Recommended Electives:

EMT 90	Emergency Medical Technician I
FIRE 40	Fire Prevention 1A
FIRE 41	Fire Prevention 1B
FIRE 51	Fire Command 1B
FIRE 60	Fire Investigation 1A
FIRE 61	Fire Investigation 1B
PE-F 50	Physical Skills Preparation for Law Enforcement and Fire Science
PE-F 51	Agility Testing Preparation for Law Enforcement and Fire Science
PE-F 52	Fitness and Conditioning for Law Enforcement, Fire Science and Forestry
SPAN 66	Spanish for Fire and Police Personnel

**Fire Technology — Fire Prevention
Fire Technology Department
Major 22110**

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

Requirements for the Major

Required courses:

FIRE 1	Fire Protection Organization	3.0	CSU
FIRE 2	Fire Prevention Technology	3.0	CSU
FIRE 3	Fire Protection Equipment and Systems	3.0	CSU
FIRE 4	Building Construction for Fire Protection	3.0	CSU
FIRE 5	Fire Behavior and Combustion	3.0	CSU
FIRE 6	Hazardous Materials/ICS	3.0	
FIRE 10	Arson and Fire Investigation	3.0	CSU
FIRE 40	Fire Prevention 1A	2.0	
FIRE 41	Fire Prevention 1B	2.0	
FIRE 42	Fire Prevention 1C	2.0	
FIRE 43	Fire Prevention 2a	2.0	
FIRE 44	Fire Prevention 2b	2.0	
FIRE 45	Fire Prevention 2c	2.0	
FIRE 68	Title 19/24 Workshop	1.0	
Total Units		34.0	

Recommended Electives:

EMT 90	Emergency Medical Technician I
PE-F 50	Physical Skills Preparation for Law Enforcement and Fire Science
PE-F 51	Agility Testing Preparation for Law Enforcement and Fire Science
PE-F 52	Fitness and Conditioning for Law Enforcement, Fire Science and Forestry
SPAN 66	Spanish for Fire and Police Personnel

**Fire Technology — Fire Training
Fire Technology Department
Major 22111**

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

Requirements for the Major

Required courses:

FIRE 1	Fire Protection Organization	3.0	CSU
FIRE 2	Fire Prevention Technology	3.0	CSU
FIRE 3	Fire Protection Equipment and Systems	3.0	CSU
FIRE 4	Building Construction for Fire Protection	3.0	CSU

FIRE 5	Fire Behavior and Combustion	3.0	CSU
FIRE 6	Hazardous Materials/ICS	3.0	
FIRE 7	Fire Fighting Tactics and Strategy	3.0	CSU
FIRE 20	Fire Instructor 1A	2.0	
FIRE 21	Fire Instructor 1B	2.0	
FIRE 22	Fire Instructor 2a	2.0	
FIRE 23	Fire Instructor 2b	2.0	
FIRE 24	Fire Instructor 2c	2.0	
FIRE 30	Fire Management 1	2.0	
Total Units		33.0	

Recommended Electives:

EMT 90	Emergency Medical Technician I
FIRE 8	Fire Company Organization and Management
FIRE 40	Fire Prevention 1A
FIRE 41	Fire Prevention 1B
FIRE 50	Fire Command 1A
FIRE 51	Fire Command 1B
PE-F 50	Physical Skills Preparation for Law Enforcement and Fire Science
PE-F 51	Agility Testing Preparation for Law Enforcement and Fire Science
PE-F 52	Fitness and Conditioning for Law Enforcement, Fire Science and Forestry
SPAN 66	Spanish for Fire and Police Personnel

**Fire Technology —
Private Fire Service**

**Fire Technology Department
Major 22112**

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

Requirements for the Major

Required courses:

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

FIRE 8	Fire Company Organization and Management	3.0	CSU
FIRE 11	Fire Apparatus and Equipment	3.0	CSU
FIRE 40	Fire Prevention 1A	2.0	
FIRE 41	Fire Prevention 1B	2.0	
FIRE 42	Fire Prevention 1C	2.0	
Total Units		30.0	

Recommended Electives:

EMT 90	Emergency Medical Technician I
FIRE 10	Arson and Fire Investigation
FIRE 30	Fire Management 1
FIRE 60	Fire Investigation 1A
FIRE 61	Fire Investigation 1B
PE-F 50	Physical Skills Preparation for Law Enforcement and Fire Science
PE-F 51	Agility Testing Preparation for Law Enforcement and Fire Science
PE-F 52	Fitness and Conditioning for Law Enforcement, Fire Science and Forestry
SPAN 66	Spanish for Fire and Police Personnel

**Floral Design
Agricultural Sciences Department
Major 20113**

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

Listed below are the courses needed to satisfy major requirements. Students may obtain certificates upon completion of required courses. It is recommended that all students consult with the department chairperson or faculty advisor to file an educational plan.

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

Requirements for the Major
Required courses:

AGAG 1	Food Production, Land Use and Politics – A Global Perspective	3.0	CSU, UC
AGOR 1	Horticultural Science	3.0	CSU
AGOR 2	Plant Propagation/Greenhouse Management	3.0	CSU
AGOR 13	Landscape Design	3.0	CSU
AGOR 15	Interior Landscaping	3.0	
AGOR 25	Floral Design I	3.0	CSU
AGOR 26	Floral Design II	3.0	CSU
AGOR 27	Floral Design III	3.0	
AGOR 29	Ornamental Plants – Herbaceous	3.0	CSU, UC
AGOR 30	Ornamental Plants – Trees and Woody Shrubs	3.0	CSU, UC
AGOR 32	Landscaping and Nursery Management	3.0	CSU
AGOR 91	Work Experience in Nursery Operations, <i>or</i>	1.0	
AGOR 92	Work Experience in Nursery Operations, <i>or</i>	2.0	
AGOR 93	Work Experience in Nursery Operations, <i>or</i>	3.0	
AGOR 94	Work Experience in Nursery Operations	4.0	
CISB 15	Microcomputer Applications	4.0	CSU, UC
Total Units		38.0 - 41.0	

General Business
Accounting and Management Department Major 20501

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

Requirements for the Major
Required courses:

BUSA 7	Principles of Accounting – Financial, <i>or</i>	5.0	CSU, UC
BUSA 72	Bookkeeping – Accounting	5.0	
BUSL 18	Business Law, <i>or</i>	3.0	CSU, UC
BUSL 18H	Business Law – Honors	3.0	CSU, UC
BUSM 10	Principles of Continuous Quality Improvement	3.0	
BUSM 20	Principles of Business	3.0	CSU, UC

BUSM 60	Human Relations in Business	3.0	CSU
BUSM 61	Business Organization and Management	3.0	CSU
BUSM 62	Human Resource Management	3.0	
BUSO 5	Business English	3.0	
BUSO 25	Business Communications	3.0	CSU
BUSS 36	Principles of Marketing	3.0	CSU
CISB 15	Microcomputer Applications	4.0	CSU, UC
PLUS			
Select six (6) units from:			
BUSA	Business: Accounting	1.0 - 5.0	CSU, UC
BUSC	Business: Economics	3.0	CSU, UC
BUSL	Business: Law	1.0 - 3.0	CSU, UC
BUSM	Business: Management	1.0 - 4.0	CSU, UC
BUSS	Business: Sales, Merchandising and Marketing	1.0 - 4.0	CSU
CISB	Computer Information Systems: Beginning	2.0 - 4.0	CSU, UC
COMP	Computer Applications	0.5 - 4.0	CSU
Total Units		42.0	

Histologic Technician Training
Biological Sciences Department Major 21211

This program provides on-campus and on-site technical training in the field of histotechnology, focusing on routine tissue sample preparation, special stains and techniques such as immunohistochemistry, and in situ hybridization. Training on campus will utilize samples routinely prepared in both clinical and research facilities. As part of their formal training, students of histotechnology will work through study guides provided by the American Society of Clinical Pathologists (ASCP) for its certification examination. Partnerships with local facilities will allow for work experience and internship sites, required for certification of histotechnology graduates, and will provide further training for those interested in research and/or careers in the private sector.

Requirements for the Major
Required courses:

ANAT 10B	Introductory Human Physiology, <i>or</i>	4.0	CSU, UC
ANAT 36	Human Physiology	5.0	CSU, UC
ANAT 35	Human Anatomy	5.0	CSU, UC
CHEM 10	Chemistry for Allied Health Majors, <i>or</i>	4.0	CSU, UC

CHEM 50	General Chemistry I	5.0	CSU, UC
HT 1	Introduction to Histotechnology	1.0	
HT 2	Scientific Basics for Histologic Technicians	3.0	
HT 10	Histology	3.0	
HT 12	Beginning Histotechniques	4.0	
HT 14	Advanced Histotechniques	4.0	
HT 16	Histochemistry/Immunohistochemistry	4.0	
MICR 22	Microbiology, <i>or</i>	4.0	CSU, UC
MICR 1	Principles of Microbiology	5.0	CSU, UC
PLUS			
Select four (4) units from:			
HT 17	Work Experience in Histotechnology	1.0	
HT 18	Work Experience in Histotechnology	2.0	
HT 19	Work Experience in Histotechnology	3.0	
HT 20	Work Experience in Histotechnology	4.0	
Total Units		40.0 - 43.0	

Horse Ranch Management
Agricultural Sciences Department Major 20102

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

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

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

Requirements for the Major
Required courses:

AGAB 20	Microcomputer Applications in Agriculture	3.0	CSU, UC
AGAG 59	Work Experience in Agriculture, <i>or</i>	1.0	
AGAG 60	Work Experience in Agriculture, <i>or</i>	2.0	
AGAG 61	Work Experience in Agriculture, <i>or</i>	3.0	
AGAG 62	Work Experience in Agriculture	4.0	
AGAN 2	Animal Nutrition	3.0	CSU
AGAN 94	Animal Breeding	3.0	
AGLI 16	Horse Production	4.0	CSU, UC
AGLI 18	Horse Ranch Management	4.0	CSU
AGLI 19	Horse Hoof Care	2.0	CSU
AGLI 20	Horse Behavior and Training	2.0	
AGLI 96	Animal Sanitation and Disease Control	3.0	CSU
AGLI 97	Artificial Insemination of Livestock	2.0	
PLUS			
Select six (6) units from:			
AGHE 84A	Applied Animal Health Procedures	1.0	
AGOR 53	Small Engine Repair I	3.0	CSU
AGOR 71	Landscape Construction Fundamentals	3.0	CSU
BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 66	Small Business Management	3.0	
Total Units		33.0 - 36.0	

Hospitality and Restaurant Management
Family and Consumer Sciences Department Major 21307

This program provides students with an excellent background for a career in the hospitality and restaurant management industry. Students will have the education necessary for many entry-level positions. Students may wish to pursue a Certificate in Hospitality Management, Restaurant Management, Food Services, or Catering. This program is designed to articulate with the Collins School of Hospitality Management at Cal Poly Pomona, as well as other universities. (*Note: HRM 65 is a required course in the Cal Poly program.*) Students wishing to transfer should consult with Hospitality and Restaurant Management faculty or counselor or advisor to discuss transfer options.

Programs Leading to an Associates Degree

Requirements for the Major

Required courses:

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

PLUS

Select three (3) units from:

HRM 61	Menu Planning	3.0	CSU
HRM 62	Catering	3.0	CSU
HRM 93	Work Experience in Restaurant/Hospitality	3.0	CSU
NF 20	Principles of Foods with Lab	3.0	CSU

Total Units 28.5

Recommended Electives:

HRM 91	Work Experience in Restaurant/Hospitality
HRM 92	Work Experience in Restaurant/Hospitality
HRM 94	Work Experience in Restaurant/Hospitality

Human Resource Management Accounting and Management Department Major 20530

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

Requirements for the Major

Required courses:

ANTH 22	General Cultural Anthropology	3.0	CSU, UC
BUSA 70	Payroll and Tax Accounting	3.0	

BUSL 19	Advanced Business Law	3.0	CSU, UC
BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 60	Human Relations in Business	3.0	CSU
BUSM 61	Business Organization and Management	3.0	CSU
BUSM 62	Human Resource Management	3.0	
BUSO 25	Business Communications	3.0	CSU
CISB 15	Microcomputer Applications	4.0	CSU, UC
Total Units		28.0	

Interior Design

Family and Consumer Sciences Department Major 21301

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

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

Requirements for the Major

Required courses:

ARCH 11	Architectural Drawing	3.0	CSU, UC
ARCH 13	Architectural Illustration	3.0	CSU, UC
ARCH 15	Architectural Working Drawings – I	3.0	CSU
ARCH 16	Basic CAD and Computer Application	4.0	CSU, UC
BUSS 35	Professional Selling	3.0	CSU
ID 100	Fundamentals of Interior Design	3.0	CSU
ID 105	Interior Design Studio I	2.0	CSU
ID 120	Interior Design Careers	2.0	CSU
ID 130	Applied Color and Design Theory	4.0	CSU
ID 150	Interior Materials and Products	4.0	CSU
ID 170	Space Planning	3.0	CSU

ID 180	History of Interior Architecture & Furnishings I	3.0	CSU
ID 190	History of Interior Architecture & Furnishings II	3.0	CSU
ID 210	Fundamentals of Lighting	3.0	
ID 215	Interior Design Studio II	2.0	CSU
ID 230	Business and Professional Practice	3.0	
ID 240A	Interior Design Internship Seminar, and	1.0	
ID 240B	Interior Design Internship	1.0	
Total Units		50.0	

Recommended Electives:

ARCH 23	Architectural Presentations
ARTD 15A	Drawing: Beginning
BUSA 72	Bookkeeping – Accounting
FCS 41	Life Management

Interior Design — Kitchen and Bath Design

Family and Consumer Sciences Department Major 21302

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

Requirements for the Major

Required courses:

ARCH 11	Architectural Drawing	3.0	CSU, UC
ARCH 15	Architectural Working Drawings – I	3.0	CSU
ARCH 16	Basic CAD and Computer Application	4.0	CSU, UC
ID 100	Fundamentals of Interior Design	3.0	CSU
ID 105	Interior Design Studio I	2.0	CSU
ID 130	Applied Color and Design Theory	4.0	CSU
ID 150	Interior Materials and Products	4.0	CSU
ID 170	Space Planning	3.0	CSU
ID 180	History of Interior Architecture & Furnishings I	3.0	CSU

ID 190	History of Interior Architecture & Furnishings II	3.0	CSU
ID 210	Fundamentals of Lighting	3.0	
ID 215	Interior Design Studio II	2.0	CSU
ID 230	Business and Professional Practice	3.0	
ID 240A	Interior Design Internship Seminar	1.0	
ID 240B	Interior Design Internship	1.0	
ID 240C	Interior Design/Kitchen & Bath Internship	2.0	
ID 250	Codes and Specifications for Interior Design	2.0	CSU
ID 265	Interior Design Studio III – Kitchens	2.0	
ID 275	Interior Design Studio IV – Bath Design	2.0	CSU
INSP 70	Elements of Construction	3.0	CSU
INSP 71	Construction Estimating	3.0	CSU
Total Units		56.0	

Recommended Electives:

ARCH 13	Architectural Illustration
ARCH 23	Architectural Presentations
BUSA 72	Bookkeeping – Accounting
BUSM 60	Human Relations in Business
BUSM 66	Small Business Management
BUSS 35	Professional Selling
BUSS 50	Retail Store Management and Merchandising

International Business

Accounting and Management Department Major 20507

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

Requirements for the Major

Required courses:

BUSL 20	International Business Law	3.0	
BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 50	World Culture: A Business Perspective, <i>or</i>	3.0	
ANTH 22	General Cultural Anthropology	3.0	CSU, UC
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	CSU
BUSM 66	Small Business Management	3.0	
BUSS 36	Principles of Marketing	3.0	CSU
PLUS			
Select one (1) course from:			
BUSS 70	International Marketing Concepts	3.0	
CHIN 1	Beginning Chinese	4.0	CSU, UC
FRCH 1	Elementary French	4.0	CSU, UC
GERM 1	Elementary German	4.0	CSU, UC
ITAL 1	Elementary Italian	4.0	CSU, UC
JAPN 1	Elementary Japanese	4.0	CSU, UC
SPAN 1	Elementary Spanish	4.0	CSU, UC
Total Units		27.0 - 28.0	

Recommended Electives:

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

Law Enforcement

Public Services Department Major 22102

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

Requirements for the Major

Required courses:

ADJU 1	The Administration of Justice System	3.0	CSU, UC
ADJU 2	Principles and Procedures of the Justice System	3.0	CSU
ADJU 3	Concepts of Criminal Law	3.0	CSU, UC
ADJU 4	Legal Aspects of Evidence	3.0	CSU
ADJU 5	Community Relations	3.0	CSU, UC
ADJU 68	Administration of Justice Report Writing	3.0	

PLUS

Select four (4) courses from:

ADJU 6	Concepts of Enforcement Services	3.0	
ADJU 13	Concepts of Traffic Services	3.0	
ADJU 20	Principles of Investigation	3.0	CSU

ADJU 38	Narcotics Investigation	3.0
ADJU 59	Street Gangs and Law Enforcement	3.0
ADJU 74	Vice Control	3.0
CORS 30	Ethnic Relations in Corrections	3.0
CORS 40	Crime and Delinquency	3.0
CORS 45	The Violent Offender	3.0
Total Units		30.0
Recommended Electives:		
PE-F 50	Physical Skills Preparation for Law Enforcement and Fire Science	
PE-F 51	Agility Testing Preparation for Law Enforcement and Fire Science	
PE-F 52	Fitness and Conditioning for Law Enforcement, Fire Science and Forestry	
SPAN 66	Spanish for Fire and Police Personnel	

Licensed Vocational Nurse to RN Nursing Department Major 21201

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

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

Prerequisite Courses:

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

Non-course requirements:

1. An overall grade point average of 2.5 for the Human Anatomy, grade Human Physiology, and Microbiology prerequisite courses with no grade less than a "C" for

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

Requirements for Nursing

Required courses:

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

Total Units 28.0

Requirements for the Major:

- *ANAT 35 Human Anatomy, or equivalent, *and*
- *ANAT 36 Human Physiology, or equivalent, *or*
- *ANAT 10A Introductory Human Anatomy, or equivalent, *and*
- *ANAT 10B Introductory Human Physiology, or equivalent, *and*

MICR 1	Principles of Microbiology, or equivalent, <i>or</i>
MICR 22	Microbiology, or equivalent, <i>and</i>
ENGL 1A	Freshman Composition, <i>and</i>
CHLD 10	Child Growth and Development, <i>or</i>
PSYC 14	Developmental Psychology
PSYC 1A	Introduction to Psychology
SPCH 1A	Public Speaking
Total Units	24.0 - 27.0

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

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

Requirements for the Associate Degree:

Students must develop an education plan with a counselor or educational advisor to complete college academic requirements for the AS degree. Contact the Counseling Department or Advising Center to schedule an appointment.

Selection Process:

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

Procedure:

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

The Eligibility Appointment:

1. Once a student has completed all course prerequisites, they may request an appointment with a counselor or educational advisor.
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 will need to have their transcripts evaluated by an approved international transcript

Programs Leading to an Associates Degree

evaluation agency and must bring the final evaluation to their appointment (*students may be able to obtain a list of agencies from the Admissions Office*).

d. All students will need to bring official proof of high school graduation, GED, or college graduation from an accredited institution in the United States.

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

September 1 - November 30
March 1 - May 30

Students should also be aware that once they have been admitted to the Nursing program and before beginning the clinical portion of the program, they will need to be able to pass both a criminal background check, including a screening by the Office of Inspector General for welfare or Social Security fraud, as well as testing negative for drug use.

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

Physical Demands

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

Sensory Demands

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

Working Environment

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

- Contact with patients having different religious, culture, ethnicity race, sexual orientation, psychological and physical disabilities, and under a wide variety of circumstances
- Handle emergency or crisis situations
- Subject to many interruptions
- Requires judgment/action which could result in death 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.

**Livestock Management
Agricultural Sciences Department
Major 20103**

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

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

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

Requirements for the Major

Required courses:

AGAB 20	Microcomputer Applications in Agriculture	3.0	CSU, UC
AGAG 1	Food Production, Land Use and Politics – A Global Perspective	3.0	CSU, UC

AGAG 59	Work Experience in Agriculture, <i>or</i>	1.0	
AGAG 60	Work Experience in Agriculture, <i>or</i>	2.0	
AGAG 61	Work Experience in Agriculture, <i>or</i>	3.0	
AGAG 62	Work Experience in Agriculture	4.0	
AGAG 91	Agricultural Calculations	3.0	
AGAN 1	Animal Science	3.0	CSU, UC
AGAN 2	Animal Nutrition	3.0	CSU
AGAN 94	Animal Breeding	3.0	
AGLI 14	Swine Production	3.0	CSU
AGLI 16	Horse Production	4.0	CSU, UC
AGLI 17	Sheep Production	3.0	CSU
AGLI 30	Beef Production	3.0	CSU
AGLI 34	Livestock Judging and Selection	2.0	CSU, UC
AGLI 96	Animal Sanitation and Disease Control	3.0	CSU

PLUS

Select six (6) units from:

AGOR 53	Small Engine Repair I	3.0	CSU
AGOR 71	Landscape Construction Fundamentals	3.0	CSU
BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 66	Small Business Management	3.0	
BUSS 35	Professional Selling	3.0	CSU
BUSS 36	Principles of Marketing	3.0	CSU

Total Units 43.0 - 46.0

**Manufacturing Technology
Aircraft Maintenance Technology &
Manufacturing Department
Major 20918**

This curriculum is designed to prepare the student for entrance into the manufacturing field in one of the machining occupations, such as machinist (*manual, N/C, and CAD/CAM*), or machinist apprentice.

Graduates may enter the manufacturing field in areas dealing with production, research and development, tool and die construction, mold making, or computerized manufacturing. Laboratory practice utilizes industrial types of equipment and precision measuring instruments to provide training in the various machining occupations. Setup and tooling procedures and part verification upon completion of the metal removing process are covered. Instruction on all types of lathes, mills, grinders, and specialized equipment such as EDM and CNC is included. Supplementary instruction is also provided in bench

work, layout, inspection process, blueprint reading, metal composition, heat treatment, assembly procedures, jig and fixture design, and construction.

Requirements for the Major

Required courses:

MFG 11	Manufacturing Processes I	2.0	CSU
MFG 12	Manufacturing Processes II	2.0	CSU
MFG 15	AutoCAD 2D	2.0	
MFG 17	3-D CAD – Mechanical Modeling	2.0	
MFG 19	Parametric Solid Modeling for Manufacturing	2.0	
MFG 38	MasterCAM I	2.0	CSU
MFG 38B	Advanced MasterCAM	2.0	CSU
MFG 38C	MasterCAM Solids	2.0	
MFG 39	SurfCAM I	2.0	CSU
MFG 39B	SurfCAM II	2.0	CSU
MFG 58	Blueprint Reading for Manufacturing	2.0	
MFG 70	Technical Mathematics – Manufacturing Applications	2.0	CSU
MFG 85	Manual CNC (Computerized Numerical Control) Operations	2.0	CSU

PLUS

Select two (2) courses from:

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

Total Units 30.0

**Marketing Management
Business Administration Department
Major 20510**

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

Requirements for the Major

Required courses:

BUSA 7	Principles of Accounting – Financial, <i>or</i>	5.0	CSU, UC
BUSA 72	Bookkeeping – Accounting	5.0	
BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 61	Business Organization and Management	3.0	CSU
BUSO 25	Business Communications	3.0	CSU
BUSS 35	Professional Selling	3.0	CSU

BUSS 36	Principles of Marketing	3.0	CSU
BUSS 70	International Marketing Concepts	3.0	
BUSS 85	Special Issues in Marketing	2.0	
CISB 15	Microcomputer Applications	4.0	CSU, UC
PLUS			
Select one (1) course from:			
BUSC 1A	Principles of Economics – Macroeconomics, <i>or</i>	3.0	CSU, UC
BUSC 1AH	Principles of Economics – Macroeconomics – Honors	3.0	CSU, UC
BUSC 1B	Principles of Economics – Macroeconomics, <i>or</i>	3.0	CSU, UC
BUSC 1BH	Principles of Economics – Macroeconomics – Honors	3.0	CSU, UC
BUSC 17	Applied Business Statistics	3.0	CSU, UC
BUSM 60	Human Relations in Business	3.0	CSU
BUSO 5	Business English	3.0	
Total Units		32.0	

**Mental Health Technology —
Psychiatric Technician**

**Psychiatric Technician Department
Major 21208**

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

Requirements for the Major

Required courses:

MENT 40	Introduction to Interviewing and Counseling, <i>or</i>	3.0
PSYC 40	Introduction to Interviewing and Counseling	3.0
MENT 56	Medical-Surgical Nursing for Psychiatric Technicians	9.0
MENT 56L	Clinical Experience	4.0
MENT 58	Advanced Medical-Surgical Nursing for Psychiatric Technicians	2.0
MENT 58L	Advanced Medical-Surgical Nursing for Psychiatric Technicians Clinical	1.5
MENT 70	Introduction to Psychiatric Technology	1.5
MENT 70L	Introduction to Psychiatric Technology Clinical Technicians	2.0
MENT 71	Pharmacology for Psychiatric Technicians	2.0

MENT 72	Nursing Care of the Developmentally Disabled Person	7.0
MENT 72L	Nursing Care of the Developmentally Disabled Person – Clinical	5.0
MENT 73L	Psychiatric Nursing for Psychiatric Technicians Clinical	5.0
MENT 73T	Psychiatric Nursing for Psychiatric Technicians	6.0
MENT 82	Work Experience in Mental Health Technology	2.0
PSYC 1A	Introduction to Psychology	3.0
Total Units		53.0

Special Information:

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

To remain in the program, students must maintain a "C" or better grade in all courses.

The student will qualify to take the California State Board Examination upon completion of all the above courses, except MENT 82.

Entrance Requirements and Selection Procedures:

Entrance Requirements:

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

- 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.*)
- Be 18 years of age.
- File a college application and be accepted as a student at Mt. San Antonio College.
- Submit an application for the Mental Health/ Psychiatric Technician Program to the Technology and Health Division Office (909) 594-5611, Ext. 4750. All applications are dated upon receipt in the Technology and Health Division Office. A program begins each fall and spring semester.
- Take the required English Placement Test (AWE). Eligibility for ENGL 68 is advised. If you have already taken a college placement exam within the past two years at another school, arrange to have your test scores forwarded to the Technology and Health Division Office. (*If you were tested at Mt. San Antonio*

College, the office will obtain the test scores as long as an "Application for Admission" is on file with the Admissions and Records Office.) Testing is administered by the Assessment Center, located in the Student Services Center. Arrangements should be made with them to schedule a day and time to take the English Placement Test, if required. The Assessment Center is open Monday through Friday. You may contact them at (909) 594-5611, Ext. 4265.

- 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.
 - For students who possess a college degree, the English Placement Test is not required. However, it will be necessary for a student to obtain two official copies of the college transcript showing the degree issued. One transcript must be sent to the Technology and Health Division Office and the other to the Admissions and Records Office.
- Note:** Concerning Entrance Requirements 'e' and 'f', if the course(s) were taken and/or the degree obtained at Mt. San Antonio College, it is not necessary to request transcripts.
- Indicate in the mailing address the program for which your transcript is being sent to the Technology and Health Division Office.
- Example:**
Mt. San Antonio College
Technology and Health Division
Psychiatric Technician Program
1100 North Grand Avenue
Walnut, CA 91789-1399
- 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 healthcare agency policy that insures that students are in good health and free from communicable disease and able to perform their training functions. Drug testing may also be required as a part of this physical examination. Proof of high school graduation and malpractice insurance are required of all candidates upon acceptance.
 - Certain convictions may prevent a candidate from being licensed as a Psychiatric Technician.

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

Selection Procedure:

In determining eligibility of an applicant, consideration will be given to satisfactory scores on the English Placement Test.

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

Nursing

**Nursing Department
Major 21203**

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

Prerequisite Courses:

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

Non-course requirements:

- An overall grade point average of 2.5 for the Human Anatomy, Human Physiology, and Microbiology prerequisite courses with no grade less than a "C" for each course and no more than one repetition of any one of the courses.
- A cumulative grade point average (GPA) of 2.5 for all college coursework completed.
- Eligibility for Math 51
- High school graduation or GED or academic degree from an accredited college/university in the United States.
- Criminal background check and drug screening must be completed prior to any patient contact.
- A physical examination, including specific immunizations is required of all candidates prior to the beginning of nursing classes.

Programs Leading to an Associates Degree

7. Current Level C-Provider CPR certification

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

Requirements for Nursing
Required courses:

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

Requirements for the Major:
*ANAT 35 Human Anatomy, or equivalent, and
*ANAT 36 Human Physiology, or equivalent, or
*ANAT 10A Introductory Human Anatomy, or equivalent, and
*ANAT 10B Introductory Human Physiology, or equivalent, and
MICR 1 Principles of Microbiology, or equivalent, or
MICR 22 Microbiology, or equivalent, and
ENGL 1A Freshman Composition, and

CHLD 10	Child Growth and Development, <u>or</u>
PSYC 14	Developmental Psychology
PSYC 1A	Introduction to Psychology
SPCH 1A	Public Speaking
Total Units 24.0 - 27.0	

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

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

Requirements for the Associate Degree:
Students must develop an education plan with a counselor or educational advisor to complete college academic requirements for the AS degree. Contact the Counseling Department or Advising Center to schedule an appointment.

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

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

Course Prerequisites:

- ANAT 10A or 35, Human Anatomy;
- ANAT 10B or 36, Human Physiology
- MICRO 1 or 22, Microbiology
- ENGL 1A, Freshman Composition

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

- A grade point average of 2.5 in Human Anatomy, Human Physiology and Microbiology. Each course must be completed with a minimum grade of "C", and no more than one repetition of one course.
- English composition must be completed with a grade of "C" or higher;
- A minimum cumulative grade point average of 2.5, in all college coursework completed at the time of certification;
- Students must have eligibility to enroll in MATH 51, Elementary Algebra.

The Eligibility Appointment:

- Once a student has completed all course prerequisites, they may request an appointment with a counselor or educational advisor.
- Students who have completed coursework at other colleges must bring the following information to their eligibility appointment:
 - Official transcripts of all college work completed at all colleges;
 - If the prerequisite courses were completed at another college, a course description and a copy of the course syllabus;
 - Students completing college coursework outside of the United will need to have their transcripts evaluated by an approved international transcript evaluation agency and must bring the final evaluation to their appointment (*students may be able to obtain a list of agencies from the Admissions Office*).
 - All students will need to bring official proof of high school graduation, GED, or college graduation from an accredited institution in the United States.

Appointments for Eligibility Verification will only be made during the Following Months:
September 1 - November 30
March 1 - May 30

Students should also be aware that once they have been admitted to the Nursing program and before beginning the clinical portion of the program, they will need to be able to pass both a criminal background check, including a screening by the Office of Inspector General for welfare or Social Security fraud, as well as testing negative for drug use. Final selection of students for each nursing class will be determined by lottery.

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

Physical Demands

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

Sensory Demands

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

Working Environment

- May be exposed to infectious and contagious disease, without prior notification
- Regularly exposed to the risk of blood borne diseases
- Exposed to hazardous agents, body fluids and wastes
- Exposed to 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.

Ornamental Horticulture
Agricultural Sciences Department
Major 20119

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 botanic gardens, arboriculture, interior landscaping, education, and research are just some of the options.

This degree is part of our comprehensive agricultural sciences program. Our program is unique in that most courses provide hands-on experience and are designed to give the student combination of practical skills and technical knowledge. Students who intend to transfer should meet with a counselor or advisor to check the

lower division requirements in the catalog of the college or university which they will attend and also the semester and year in which courses are offered.

Requirements for the Major

Required courses:

AGAG 1	Food Production, Land Use and Politics – A Global Perspective	3.0	CSU, UC
AGOR 1	Horticultural Science	3.0	CSU
AGOR 2	Plant Propagation/Greenhouse Management	3.0	CSU
AGOR 13	Landscape Design	3.0	CSU
AGOR 24	Integrated Pest Management	3.0	CSU
AGOR 29	Ornamental Plants – Herbaceous	3.0	CSU, UC
AGOR 30	Ornamental Plants – Trees and Woody Shrubs	3.0	CSU, UC
AGOR 32	Landscape and Nursery Management	3.0	CSU
AGOR 39	Turf Grass Production and Management	3.0	CSU
AGOR 50	Soil Science and Management	3.0	CSU, UC
AGOR 62	Landscape Irrigation – Design and Installation	3.0	CSU
AGOR 71	Landscape Construction Fundamentals	3.0	CSU
AGOR 91	Work Experience in Nursery Operations, <i>or</i>	1.0	
AGOR 92	Work Experience in Nursery Operations, <i>or</i>	2.0	
AGOR 93	Work Experience in Nursery Operations, <i>or</i>	3.0	
AGOR 94	Work Experience in Nursery Operations	4.0	

PLUS

Select six (6) units from:

AGOR 15	Interior Landscaping	3.0	
AGOR 25	Floral Design I	3.0	CSU
AGOR 26	Floral Design II	3.0	CSU
AGOR 40	Sports Turf Management	3.0	
AGOR 51	Tractor and Landscape Equipment Operations	3.0	CSU
AGOR 53	Small Engine Repair I	3.0	CSU
AGOR 63	Landscape Irrigation Systems Management	3.0	
AGOR 72	Landscape Hardscape Applications	3.0	CSU

AGOR 75	Urban Arboriculture	3.0	
CISB 15	Microcomputer Applications	4.0	CSU, UC
Total Units		43.0 - 46.0	

Paralegal/Legal — Bankruptcy Specialty Business Administration Department Major 21401

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

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

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

Requirements for the Major

Required core courses:

BUSL 30	Introduction to Paralegal/Legal	3.0	CSU
BUSL 31A	Legal Analysis and Writing	3.0	
BUSL 31B	Advanced Legal Analysis and Writing	3.0	
BUSL 33A	Civil Procedure Pretrial	3.0	
BUSL 33B	Civil Procedure-Trial and Post-Trial	3.0	
BUSL 35A	Law Office Procedures	3.0	

BUSL 35B	Automated Law Office Procedures	3.0	
BUSL 37	Tort Law	3.0	
BUSL 38	Employment and Ethical Issues in Paralegalism	2.0	
BUSL 39	Contract Law	3.0	
Plus the following courses:			
BUSL 41	Property Law	3.0	
BUSL 44	Bankruptcy Law	3.0	
BUSL 45	Creditors' Rights	3.0	

Total Units 38.0

The Paralegal/Legal faculty recommend that students complement their studies with selected elective courses, including BUSL 36 – Paralegal Internship. Students should meet with a professor of the Paralegal/Legal program to help them determine which electives would best suit their career plans.

Special Information:

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

Paralegal/Legal — Corporations/ Business Specialty Business Administration Department Major 21405

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

The paralegal program stresses practical application and the development of job skills as well as teaching legal theory. The program is designed to enhance the ability of students to reason, understand and apply correct principles of law by teaching analytical and critical

thinking skills as opposed to rote learning. Graduates of the program will qualify for entry level employment and will possess skills for advancement and specialized areas in the paralegal profession. Students wishing a Bachelor's Degree (*transfer program*) should consult with a counselor or advisor to discuss transferability of courses.

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

Requirements for the Major

Required core courses:

BUSL 30	Introduction to Paralegal/Legal	3.0	CSU
BUSL 31A	Legal Analysis and Writing	3.0	
BUSL 31B	Advanced Legal Analysis and Writing	3.0	
BUSL 33A	Civil Procedure Pretrial	3.0	
BUSL 33B	Civil Procedure-Trial and Post-Trial	3.0	
BUSL 35A	Law Office Procedures	3.0	
BUSL 35B	Automated Law Office Procedures	3.0	
BUSL 37	Tort Law	3.0	
BUSL 38	Employment and Ethical Issues in Paralegalism	2.0	
BUSL 39	Contract Law	3.0	

Plus the following courses:

BUSL 18	Business Law, <i>or</i>	3.0	CSU, UC
BUSL 18H	Business Law – Honors	3.0	CSU, UC
BUSL 19	Advanced Business Law	3.0	CSU, UC
BUSL 20	International Business Law	3.0	

Total Units 38.0

Recommended Electives:

The Paralegal/Legal faculty recommend that students complement their studies with selected elective courses, including BUSL 36B – Paralegal Internship and BUSL 50 – Comparative Law. Students should meet with a professor of the Paralegal/Legal program to help them determine which electives would best suit your career plans.

Special Information:

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

Programs Leading to an Associates Degree

Paralegal/Legal — Criminal Specialty

Business Administration Department Major 21402

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

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

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

Requirements for the Major

Required courses:

BUSL 30	Introduction to Paralegal/Legal	3.0	CSU
BUSL 31A	Legal Analysis and Writing	3.0	
BUSL 31B	Advanced Legal Analysis and Writing	3.0	
BUSL 33A	Civil Procedure Pretrial	3.0	
BUSL 33B	Civil Procedure-Trial and Post-Trial	3.0	
BUSL 35A	Law Office Procedures	3.0	
BUSL 35B	Automated Law Office Procedures	3.0	
BUSL 37	Tort Law	3.0	

BUSL 38	Employment and Ethical Issues in Paralegalism	2.0	
BUSL 39	Contract Law	3.0	
BUSL 48	Criminal Law and Procedures	3.0	
BUSL 49	Evidence Law	3.0	
Total Units		35.0	

Recommended Electives:

The Paralegal/Legal faculty recommend that students complement their studies with selected elective courses, including BUSL 36 – Paralegal Internship. Students should meet with a professor of the Paralegal/Legal program to help them determine which electives would best suit their career plans.

Special Information:

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

Paralegal/Legal — Family Law Specialty

Business Administration Department Major 21403

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

The paralegal program stresses practical application and the development of job skills as well as teaching legal theory. The program is designed to enhance the ability of students to reason, understand and apply correct principles of law by teaching analytical and critical thinking skills as opposed to rote learning. Graduates of the program will qualify for entry level employment and will possess skills for advancement and specialized areas

in the paralegal profession. Students wishing a Bachelor's degree (*transfer program*) should consult with a counselor or advisor to discuss transferability of courses.

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

Requirements for the Major

Required courses:

BUSL 30	Introduction to Paralegal/Legal	3.0	CSU
BUSL 31A	Legal Analysis and Writing	3.0	
BUSL 31B	Advanced Legal Analysis and Writing	3.0	
BUSL 33A	Civil Procedure Pretrial	3.0	
BUSL 33B	Civil Procedure-Trial and Post-Trial	3.0	
BUSL 35A	Law Office Procedures	3.0	
BUSL 35B	Automated Law Office Procedures	3.0	
BUSL 37	Tort Law	3.0	
BUSL 38	Employment and Ethical Issues in Paralegalism	2.0	
BUSL 39	Contract Law	3.0	

Plus the following courses:

BUSL 41	Property Law	3.0	
BUSL 42	Family Law	3.0	
BUSL 43	Wills and Trusts	3.0	

Total Units 38.0

Recommended Electives:

The Paralegal/Legal faculty recommend that students complement their studies with selected elective courses, including BUSL 36 – Paralegal Internship. Students should meet with a professor of the Paralegal/Legal program to help them determine which electives would best suit their career plans.

Special Information:

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

Paralegal/Legal — Landlord/Tenant Specialty

Business Administration Department Major 21404

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

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

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

Requirements for the Major

Required core courses:

BUSL 30	Introduction to Paralegal/Legal	3.0	CSU
BUSL 31A	Legal Analysis and Writing	3.0	
BUSL 31B	Advanced Legal Analysis and Writing	3.0	
BUSL 33A	Civil Procedure Pretrial	3.0	
BUSL 33B	Civil Procedure-Trial and Post-Trial	3.0	
BUSL 35A	Law Office Procedures	3.0	
BUSL 35B	Automated Law Office Procedures	3.0	
BUSL 37	Tort Law	3.0	

BUSL 38	Employment and Ethical Issues in Paralegalism	2.0
BUSL 39	Contract Law	3.0
Plus the following courses:		
BUSL 40	Landlord-Tenant Law	3.0
BUSL 41	Property Law	3.0
Total Units		35.0

Recommended Electives:
The Paralegal/Legal faculty recommend that students complement their studies with selected elective courses, including BUSL 36 Paralegal Internship. Students should meet with a professor of the Paralegal/Legal program to help them determine which electives would best suit their career plans.

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

**Park and Sports Turf Management
Agricultural Sciences Department
Major 20116**

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. Our 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 hardscape), and properly identify and maintain trees, shrubs and turfgrasses. In addition, students will learn about personnel management, budgeting and other management topics.

Requirements for the Major
Required courses:

AGAG 1	Food Production, Land Use and Politics – A Global Perspective	3.0	CSU, UC
AGOR 4	Park Management	3.0	
AGOR 5	Park Facilities	3.0	
AGOR 13	Landscape Design	3.0	CSU
AGOR 24	Integrated Pest Management	3.0	CSU
AGOR 29	Ornamental Plants – Herbaceous	3.0	CSU, UC
AGOR 30	Ornamental Plants – Trees and Woody Shrubs	3.0	CSU, UC
AGOR 39	Turf Grass Production and Management	3.0	CSU
AGOR 51	Tractor and Landscape Equipment Operations	3.0	CSU
AGOR 62	Landscape Irrigation – Design and Installation	3.0	CSU
AGOR 63	Landscape Irrigation Systems Management	3.0	
AGOR 71	Landscape Construction Fundamentals	3.0	CSU
AGOR 75	Urban Arboriculture	3.0	
AGOR 91	Work Experience in Nursery Operations, <i>or</i>	1.0	
AGOR 92	Work Experience in Nursery Operations, <i>or</i>	2.0	
AGOR 93	Work Experience in Nursery Operations, <i>or</i>	3.0	
AGOR 94	Work Experience in Nursery Operations	4.0	
CISB 15	Microcomputer Applications	4.0	CSU, UC
Total Units		44.0 - 47.0	

**Pet Science
Agricultural Sciences Department
Major 20104**

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

The following programs list all courses needed to satisfy major requirements. Students may obtain certificates upon completion of required courses listed. It is recommended that all students consult with the department chairperson, counselor or advisor to file an educational plan.
These programs are intended to prepare students for employment following graduation. Students desiring a Bachelor's Degree (*transfer program*) should consult with the department chairperson, counselor or advisor to discuss transferability of courses. The curriculum is flexible in nature to allow for previous experience and specialization in a given area of agriculture and agricultural business.

Requirements for the Major
Required courses:

AGAB 20	Microcomputer Applications in Agriculture	3.0	CSU, UC
AGAN 1	Animal Science	3.0	CSU, UC
AGAN 2	Animal Nutrition	3.0	CSU
AGAN 51	Animal Handling and Restraint	3.0	CSU
AGAN 94	Animal Breeding	3.0	
AGLI 96	Animal Sanitation and Disease Control	3.0	CSU
AGPE 70	Pet Shop Management	3.0	
AGPE 71	Canine Management	3.0	
AGPE 72	Feline Management	3.0	
AGPE 73	Tropical and Coldwater Fish Management	2.0	
AGPE 74	Reptile Management	2.0	
AGPE 76	Aviculture – Cage and Aviary Birds	3.0	
Total Units		34.0	

**Photography
Photographics Department
Major 21002**

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

Requirements for the Major
Required courses:

GRAP 10	Photo Editing with Photoshop	3.0	
PHOT 10	Basic Digital and Film Photography	3.0	CSU, UC

PHOT 11	Advanced Professional Photography	4.0	
PHOT 12	Photographic Alternatives	3.0	CSU, UC
PHOT 15	History of Photography	3.0	CSU, UC
PHOT 16	Fashion Photography, <i>or</i>	3.0	
PHOT 18	Portraiture and Wedding Photography	3.0	
PHOT 17	Photocommunication	3.0	
PHOT 20	Color Photography	3.0	
PHOT 21	Exploring Color Photography	3.0	
PHOT 28	Photography Portfolio Development	2.0	
PHOT 30	Commercial and Illustrative Photography	3.0	
Total Units		33.0	

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

**Physical Education
Physical Education Department
Major 20806**

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

Requirements for the Major
Required courses:

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

Programs Leading to an Associates Degree

PLUS
Select eight (8) courses from:

DNCE	Dance: Activity	0.5 - 2.0	CSU, UC
PE-A	Physical Education: Aquatics	0.5 - 2.0	CSU, UC
PE-F	Physical Education: Fitness	0.1 - 2.5	CSU, UC
PE-I	Physical Education: Individual	0.5 - 1.0	CSU, UC
PE-L	Physical Education: Adaptive	0.5 - 1.0	CSU, UC
PE-S	Physical Education: Team Sports	0.5 - 1.0	CSU, UC
Total Units		31.6 - 44.5	

Psychiatric Technician to RN Nursing Department Major 21209

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

The Psychiatric Technician is provided career mobility into the Nursing Program to earn an Associate Degree in Nursing.

Prerequisite Courses:

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

Non-course Requirements:

- An overall grade point average of 2.5 for the Human Anatomy, Human Physiology, and Microbiology prerequisite courses with no grade less than a "C" for each course and no more than one repetition of any
- A cumulative grade point average (GPA) of 2.5 for all college coursework completed.
- Eligibility for MATH 51.

- High school graduation or GED or academic degree from an accredited college/university in the United States.
- Possess a current California Psychiatric Technician License.
- Criminal background check and drug screening must be completed prior to any patient contact.
- A physical examination, including specific immunizations is required of all candidates prior to the beginning of nursing classes.
- Current Level C-Provider CPR certification
- Nursing 70 Role Transition must be completed with a credit grade prior to entrance into the program. (*NURS 70: Role Transition – Due to the clinical component of NURS 70, applicants must submit their names to Nursing Office for approval prior to enrollment in this course. Applicants must have completed all prerequisite courses prior to taking NURS 70. Applicants must provide proof of current Psychiatric Technician License, physical, CPR card, Background Check, and drug test prior to the start of class.*)

**Requirements for Nursing
 Required courses:**

NURS 3	Medical-Surgical Nursing: Locomotion/Sensation/Integument/Oncology/Immunology	3.5	CSU
NURS 4	Maternity Nursing	3.0	CSU
NURS 6	Pediatric Nursing	3.0	CSU
NURS 7	Medical-Surgical Nursing: Nutrition/Elimination/Surgical Asepsis	7.0	CSU
NURS 8	Medical-Surgical Nursing: Circulation and Oxygenation	5.0	CSU
NURS 9	Leadership in Nursing	1.0	CSU
NURS 10	Medical-Surgical Nursing: Integration/Regulation	4.0	CSU
NURS 11	Preceptorship in Nursing	2.0	CSU
Total Units		28.5	

Prerequisites for the Major:

- *ANAT 35 Human Anatomy, or equivalent, and
- *ANAT 36 Human Physiology, or equivalent, or
- *ANAT 10A Introductory Human Anatomy, or equivalent, and
- *ANAT 10B Introductory Human Physiology, or equivalent, and
- MICR 1 Principles of Microbiology, or equivalent, or
- MICR 22 Microbiology, or equivalent, and

- ENGL 1A Freshman Composition, and
- CHLD 10 Child Growth and Development, or
- PSYC 14 Developmental Psychology
- PSYC 1A Introduction to Psychology
- SPCH 1A Public Speaking

Total Units 24.0 - 27.0

CHLD 10 or PSYC 14 must be completed prior to entrance into NURS 6, Pediatric Nursing.

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

Requirements for the Associate Degree:

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

Selection Process:

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

Procedure:

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

The Eligibility Appointment:

- Once a student has completed all course prerequisites, they may request an appointment with a counselor or educational advisor.
- Students who have completed coursework at other colleges must bring the following information to their eligibility appointment:
 - Official transcripts of all college work completed at all colleges;
 - If the prerequisite courses were completed at another college, a course description and a copy of the course syllabus;
 - Students completing college coursework outside of the United will need to have their transcripts evaluated by an approved international transcript evaluation agency and must bring the final evaluation to their appointment (*students may be able to obtain a list of agencies from the Admissions Office*).

- All students will need to bring official proof of high school graduation, GED, or college graduation from an accredited institution in the United States.

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

- September 1 - November 30
- March 1 - May 30

Students should also be aware that once they have been admitted to the Nursing program and before beginning the clinical portion of the program, they will need to be able to pass both a criminal background check, including a screening by the Office of Inspector General for welfare or Social Security fraud, as well as testing negative for drug use.

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

Physical Demands

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

Sensory Demands

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

Working Environment

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

- Subject to many interruptions
- Requires judgment/action which could result in death 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.

Radio Broadcasting: Behind the Scenes

**Art Department
Major 20606**

The Radio Broadcasting Behind-the-Scenes Degree is designed for students who are interested in the non-performance side of the broadcasting industry. Instruction in this major prepares students for entry-level jobs in a variety of areas including production, promotion, copywriting and management. Students also receive instruction in the business side of the industry and can further customize their program by selecting from a variety of optional courses. Students intending to pursue a Bachelor's Degree (*transfer program*) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

Required courses:

R-TV 01	Introduction to Broadcasting	3.0	CSU
R-TV 09	Broadcast Sales and Promotion	3.0	
R-TV 10	Radio Management and Programming	3.0	
R-TV 11A	Beginning Radio Production	3.0	CSU
R-TV 11B	Advanced Radio Production	3.0	CSU
R-TV 12	Commercial Copywriting	3.0	
R-TV 15	Broadcast Business Practices	3.0	
R-TV 16	Broadcast Career Preparation	3.0	
R-TV 97A	Radio Broadcasting Seminar	1.0	
R-TV 97B	Radio Broadcasting Internship	1.0	

PLUS

Select six (6) units from:

R-TV 03	Sportscasting and Reporting	1.5	
R-TV 04	Broadcast News Field Reporting	3.0	
R-TV 05	Radio and Television Newswriting	3.0	
R-TV 06	Broadcast Traffic Reporting	1.5	
R-TV 08	KSAK Radio Studio Operations	2.0	CSU

R-TV 17	Internet Radio Broadcasting	3.0	
R-TV 26	Legal Issues in Entertainment Law	3.0	
R-TV 27	Radio Drama	3.0	
Total Units		32.0	

Radio Broadcasting: On the Air

**Art Department
Major 20605**

The Radio Broadcasting On-The-Air Degree is designed to prepare students for an entry-level job in a variety of performance areas of the broadcasting industry, including disc jockey, news anchor, sportscaster, and commercial voice-overs. Students also receive instruction in the business side of the industry and can further customize their program by selecting from a variety of optional courses. Students intending to pursue a Bachelor's Degree (*transfer program*) should consult with a counselor or advisor to discuss transferability of courses.

Requirements for the Major

Required courses:

R-TV 01	Introduction to Broadcasting	3.0	CSU
R-TV 02	Radio and Television Announcing	3.0	CSU
R-TV 05	Radio-TV Newswriting	3.0	
R-TV 07	Commercial Voice-Over	3.0	
R-TV 11A	Beginning Radio Production	3.0	CSU
R-TV 11B	Advanced Radio Production	3.0	CSU
R-TV 15	Broadcast Business Practices	3.0	
R-TV 16	Broadcast Career Preparation	3.0	
R-TV 97A	Radio/Entertainment Industry Seminar	1.0	
R-TV 97B	Radio/Entertainment Industry Internship	1.0	
R-TV 97C	Entertainment Industry Internship – KSAK Radio, <i>or</i>	1.0	
R-TV 97D	Entertainment Industry Internship – KSAK Radio	2.0	

PLUS

Select six (6) units from:

R-TV 03	Sportscasting and Reporting	1.5	
R-TV 04	Broadcast News Field Reporting	3.0	
R-TV 06	Broadcast Traffic Reporting	1.5	
R-TV 08	KSAK Radio Studio Operations	2.0	CSU
R-TV 09	Broadcast Sales and Promotion	3.0	
R-TV 10	Radio Management and Programming	3.0	

R-TV 12	Commercial Copywriting	3.0	
R-TV 17	Internet Radio Broadcasting	3.0	
R-TV 26	Legal Issues in Entertainment Law	3.0	
R-TV 27	Radio Drama	3.0	
Total Units		33.0 - 34.0	

Recommended Electives:

ANIM 115	Storyboarding	
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Radiologic Technology

**Radiologic Technology Department
Major 21206**

The course of study in Radiologic Technology offered at Mt. San Antonio College and its affiliated hospitals will prepare students to be certified radiologic technologists. Students will gain knowledge and understanding of the diagnostic uses of x-ray, as well as the technical skills to use x-ray equipment in both laboratory and clinical settings. The courses are developed to enable students to operate x-ray equipment, assist in the diagnosis of disease, and to observe proper medical ethics. Students will learn the nature of radiation, the principles of electricity, the structure of x-ray machines, and the operation of a clinical x-ray department.

To remain in the program, students must maintain a grade of "C" or better in all courses.

Upon completion of the Associate in Science Degree in Radiologic Technology, graduates are eligible to apply for the registry examination through the American Registry of Radiologic Technologists and the California Certification of Radiologic Technology.

Requirements for the Major

Required courses:

ANAT 10A	Introductory Human Anatomy	4.0	CSU, UC
COMP 10	Operating the Macintosh Computer	1.5	CSU
MEDI 90	Medical Terminology	3.0	CSU
RAD 30	Radiographic Pathology	1.5	
RAD 31	Fluoroscopy	2.0	
RAD 50	Radiologic Technology	3.0	CSU
RAD 52A	Techniques of Radiologic Technology	4.5	CSU
RAD 52B	Techniques of Radiologic Technology	2.5	CSU
RAD 53	Techniques of Radiologic Technology	5.0	CSU
RAD 54	Techniques of Radiologic Technology	3.0	CSU

RAD 55A	Techniques of Radiologic Technology	7.0	CSU
RAD 55B	Techniques of Radiologic Technology	2.5	CSU
RAD 56	Techniques of Radiologic Technology	7.0	CSU
RAD 57	Techniques of Radiologic Technology	4.0	CSU
RAD 61A	Theory of Radiologic Technology	4.0	CSU
RAD 61B	Radiographic Positioning	3.0	CSU
RAD 61C	Radiologic Technology Seminar	1.0	CSU
RAD 62A	Theory of Radiologic Technology	4.0	CSU
RAD 62B	Radiographic Positioning	3.0	CSU
RAD 62C	Radiologic Technology Seminar	1.0	CSU
RAD 63	Theory of Radiologic Technology	4.0	CSU
RAD 64	Theory of Radiologic Technology	4.0	CSU
RAD 91	Nursing Procedures in Radiologic Technology	2.0	CSU
Total Units		76.5	

ANAT 10A, and MEDI 90 may be taken prior to RAD 50.

Entrance Requirements and Selection Procedures:

Entrance Requirements:

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

- Applicant must be 18 years of age upon entrance into the program.
- High school graduate or equivalent.
- File a college application and be accepted as a student at Mt. San Antonio College.
- After completion of prerequisites, submit an application for the Radiologic Technology Program to the Technology and Health Division Office (909) 594-5611, Ext. 4750. All applications are dated upon receipt in the Technology and Health Division Office. A program begins each summer session.
- Take the college placement examination which is used as an indicator.

If you have already taken a college placement exam within the past two years at another school, arrange to have your scores forwarded to the Technology and Health Division Office. (*If you were tested at Mt. San Antonio College, the Technology and Health Division Office will obtain the test scores as long as an "Application for Admission" is on file with the Admissions and Records Office.*)

Programs Leading to an Associates Degree

- Arrangements should be made with the Services Center to schedule a date and time to take the college placement examination if required. The Assessment Center is open Monday through Friday. You may contact them at (909) 594-5611, Ext. 4265.
- f. Complete the following prerequisite courses with a minimum grade of "C" in each course:
- General High School Algebra (*one year*), or Introductory College Algebra (*one semester*) or MATH 51 – Elementary Algebra, or equivalent;
 - General High School Chemistry (*one year*), or Introductory College Chemistry (*one semester*), or CHEM 10, Chemistry for Allied Health Chemistry, or equivalent.
- Students must complete prerequisite courses before applying to the program.*
- g. Forward two official transcripts of all coursework completed (*high school, nursing school, and other than Mt. San Antonio College courses*). One transcript must be sent to the Technology and Health Division Office, and the other to the Admissions and Records Office.
- h. For students who possess a college degree, the English placement test is not required. However, it will be necessary for a student to obtain two official copies of the college transcript showing the degree issued. One official transcript must be sent to the Technology and Health Division Office, and the other to the Admissions and Records Office.
- If the course(s) were taken and/or the degree obtained at Mt. San Antonio College, it is not necessary to request transcripts.*
- 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
- i. A physical examination, certain immunizations, and malpractice insurance are required of all candidates after acceptance to the program and before entrance into the clinical setting. Drug testing will be required as part of the physical examination for all radiologic technology students. Forms and information will be provided at that time.
- j. All students may be required to complete a background check prior to entering the clinical education phase.

- k. An orientation with the Radiologic Technology Department will be held during the spring semester. Please contact the Technology and Health Division Office for date and time of orientation.
- l. Make an appointment with an educational advisor to review general education requirements for graduation.

Selection Procedure

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

Program Completion Requirements

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

Real Estate

**Business Administration Department
Major 20512**

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

Requirements for the Major

Required courses:

BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 60	Human Relations in Business	3.0	CSU
BUSO 25	Business Communications	3.0	CSU
BUSR 50	Real Estate Principles	3.0	CSU
BUSR 51	Legal Aspects of Real Estate	3.0	
BUSR 52	Real Estate Practice, <i>or</i>	3.0	
BUSR 52D	Real Estate Practice Work Experience	4.0	
BUSR 53	Real Estate Finance	3.0	
BUSR 54	Real Estate Appraisal	3.0	
BUSR 55	Real Estate Economics	3.0	
BUSS 36	Principles of Marketing	3.0	CSU
CISB 15	Microcomputer Applications	4.0	CSU, UC
Total Units		34.0 - 35.0	

Recommended Electives:

BUSA 7	Principles of Accounting – Financial, <i>or</i>
BUSA 11	Fundamentals of Accounting, <i>or</i>

BUSA 72	Bookkeeping – Accounting
BUSL 18	Business Law
BUSM 66	Small Business Management
BUSO 5	Business English
BUSO 26	Oral Communications for Business
BUSR 57	Income Tax Aspects of Real Estate Investments
BUSR 59	Real Estate Property Management
BUSR 76	Escrow Procedures I
BUSS 35	Professional Selling
COMP 1	Computer Keyboarding
PSYC 1A	Introduction to Psychology

Real Estate Appraisal

**Business Administration Department
Major 20513**

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

Requirements for the Major

Required courses:

BUSA 11	Fundamentals of Accounting	3.0	
BUSC 1A	Principles of Economics – Macroeconomics, <i>or</i>	3.0	CSU, UC
BUSC 1AH	Principles of Economics – Macroeconomics – Honors, <i>or</i>	3.0	CSU, UC
BUSC 1B	Principles of Economics – Microeconomics, <i>or</i>	3.0	CSU, UC
BUSC 1BH	Principles of Economics – Microeconomics – Honors	3.0	CSU, UC
BUSR 50	Real Estate Principles	3.0	CSU
BUSR 51	Legal Aspects of Real Estate	3.0	
BUSR 53	Real Estate Finance	3.0	
BUSR 54	Real Estate Appraisal	3.0	
BUSR 54SE	Standards, Ethics and Statistics for Professional Practice	1.5	
BUSR 56	Advanced Real Estate Appraisal	3.0	
BUSR 66	General Appraiser Report Writing and Case Studies	3.0	
CISB 15	Microcomputer Applications	4.0	CSU, UC
Total Units		29.5	

Recommended Electives:

BUSM 66	Small Business Management
BUSO 25	Business Communications
BUSR 62	Mortgage Loan Brokering and Lending

Recreation

**Physical Education Department
Major 22104**

Students who plan to transfer to a four-year college to continue their study in the following major are encouraged to meet with a counselor or advisor and consult the catalog of the institution they plan to attend for specific requirements.

Requirements for the Major

Required courses:

PE 1	Camp Leadership	2.0	CSU
PE 2	The Recreation Program	2.0	CSU
PE 3	First Aid and CPR, <i>or</i>	3.0	CSU, UC
PE 5	Advanced First Aid/CPR/ Emergency Response	3.0	CSU
PE 13	Sports Officiating	3.0	CSU, UC
PE 17	Introduction to Physical Education	3.0	CSU, UC
PE 19	Introduction to Care/ Prevention of Activity/ Sports-Related Injuries	3.0	CSU, UC
PE 20	Recreation and Leisure Services	3.0	CSU
PE 34	Fitness for Living	3.0	CSU, UC

PLUS

Select one (1) course from:

ARTB 14	Introduction to Art Fundamentals	3.0	CSU, UC
PSYC 1A	General Psychology	3.0	CSU, UC
SOC 1	Sociology	3.0	CSU, UC
SOC 15	Child Development	3.0	CSU, UC

PLUS

Select four (4) courses from:

DNCE	Dance: Activity	0.5 - 2.0	CSU, UC
PE-A	Physical Education: Aquatics	0.5 - 2.0	CSU, UC
PE-F	Physical Education: Fitness	0.1 - 3.0	CSU, UC
PE-I	Physical Education: Individual	0.5 - 1.0	CSU, UC
PE-L	Physical Education: Adaptive	0.5 - 1.0	CSU, UC
PE-S	Physical Education: Team Sports	0.5 - 1.0	CSU, UC

Total Units 28.1 - 34.0

**Registered Veterinary Technology
Agricultural Sciences Department
Major 2010S**

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

The following programs list all courses needed to satisfy major requirements. It is recommended that all students consult with the department chairperson or faculty advisor to file an educational plan. Students must file an educational plan with the Director of the Registered Veterinary Technology Program during the first year of study.

These programs are intended to prepare students for employment following graduation. Students desiring a Bachelor's Degree (*transfer program*) should consult with the department chairperson, counselor or advisor to discuss transferability of courses.

This degree is designed to prepare students for careers as Registered Veterinary Technicians who will work under the supervision of licensed private organizations including veterinary hospitals, research vivariums, animal shelters, and other animal care agencies. Students who satisfactorily complete the requirements of this program are eligible to take the State of California Certifying Examination for Registered Veterinary Technicians.

Students wishing to be admitted to the Registered Veterinary Technology program must meet with the Director of the Registered Veterinary Technol program at least two weeks prior to the beginning of the semester in which enrollment shall begin.

Requirements for the Major

Required courses 1st year:

AGAN 1	Animal Science	3.0	CSU, UC
AGAN 2	Animal Nutrition	3.0	CSU, UC
AGAN 51	Animal Handling and Restraint	3.0	CSU
AGAN 94	Animal Breeding	3.0	
AGHE 54	Veterinary Office Procedures	3.0	
AGLI 95	Anatomy of Domestic Animals	4.0	CSU
AGLI 96	Animal Sanitation and Disease Control	3.0	CSU

AGLI 98	Physiology of Domestic Animals	2.0	
Required courses 2nd year:			
AGHE 60	Medical Nursing and Animal Care	4.0	CSU
AGHE 61	Surgical Nursing	4.0	CSU
AGHE 62A	Clinical Pathology	4.0	CSU
AGHE 62B	Clinical Pathology	4.0	CSU
AGHE 64	Veterinary Pharmacology	3.0	CSU
AGHE 65	Veterinary Radiography	2.0	CSU
AGHE 79	Laboratory Animal Medicine and Care	3.0	CSU
AGHE 84A	Applied Animal Health Procedures, <i>or</i>	1.0	
AGHE 84B	Applied Animal Health Procedures	1.0	
AGHE 85	Seminar in Animal Health Technology	1.0	

PLUS

Select four (4) units from:

AGHE 83A	Work Experience in Animal Health	1.0	
AGHE 83B	Work Experience in Animal Health	2.0	

PLUS

Select six (6) units from:

AGLI 12	Exotic Animal Management	3.0	
AGLI 14	Swine Production	3.0	CSU
AGLI 16	Horse Production	4.0	CSU, UC
AGLI 17	Sheep Production	3.0	CSU
AGLI 18	Horse Ranch Management	4.0	CSU
AGLI 19	Horse Hoof Care	2.0	CSU
AGLI 30	Beef Production	3.0	CSU
AGPE 70	Pet Shop Management	3.0	
AGPE 71	Canine Management	3.0	
AGPE 72	Feline Management	3.0	
AGPE 73	Tropical and Coldwater Fish Management	2.0	
AGPE 74	Reptile Management	2.0	
AGPE 76	Aviculture – Cage and Aviary Birds	3.0	

Total Units 60.0

**Respiratory Therapy
Respiratory Therapy Department
Major 2120S**

The Respiratory Therapy Program, which is accredited by the Committee on Accreditation for Respiratory Care

(COARC), is designed to train students to function as Respiratory Therapists.

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

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

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

Requirements for the Major

Required courses:

ANAT 10A	Introductory Human Anatomy	4.0	CSU, UC
ANAT 10B	Introductory Human Physiology	4.0	CSU, UC
CHEM 10	Chemistry for Allied Health Majors	4.0	CSU, UC
MATH 51	Elementary Algebra	4.0	
MEDI 90	Medical Terminology	3.0	CSU
RESD 50	Theory and Principles of Respiratory Therapy	2.0	CSU
RESD 51A	Respiratory Therapy Science	4.0	CSU
RESD 51B	Respiratory Therapy Science	4.0	CSU
RESD 52	Pulmonary Anatomy and Physiology	3.0	CSU
RESD 53	Cardiopulmonary Pathophysiology	3.0	CSU
RESD 55	Adult Respiratory Intensive Care	3.0	CSU
RESD 56A-1	Techniques of Respiratory Therapy	5.0	CSU
RESD 56B-1	Techniques of Respiratory Therapy	6.0	CSU
RESD 56C-1	Techniques of Respiratory Therapy	6.0	CSU
RESD 57	Special Procedures for Respiratory Care	3.0	CSU
RESD 58	Neonatal Intensive Care	3.0	CSU
RESD 59	Respiratory Therapeutic Modalities	3.0	CSU
RESD 60	Comprehensive Pulmonary Assessment	2.0	CSU
RESD 61	Current Issues in Respiratory Care	3.0	CSU
Total Units		72.0	

Special Information:

The completion of the Respiratory Therapy Program and receipt of the Certificate of Completion requires completion of the Associate Degree. The student may elect to pursue either the Associate in Science or Associate in Arts Degree.

All students entering the program must submit an educational plan showing the major course requirements with the general education requirements for the degree.

To remain in the program, students must maintain a "C" or better grade in all courses.

Upon completion of the required courses, the student is granted a Certificate of Completion in Respiratory Therapy. The certificate will permit the student to sit for all National Board for Respiratory Care (NBRC), Incorporated, examinations.

Entrance Requirements and Selection Procedures:

Entrance Requirements:

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

1. Applicant must be at least 18 years of age upon entrance into the program and must be a high school graduate or equivalent. Please provide copy of diploma as proof of high school completion.
2. File a college application and be accepted as a student at Mt. San Antonio College.
3. Applicant must take the College placement exams before taking any of the prerequisite or respiratory therapy courses.

Testing is administered by the Assessment Center located in the Student Services Center, Building 9B. You may contact them at (909) 594-5611, Ext. 4265, to set up an appointment.

If you have taken English and math at another college, please provide college transcripts.

For students who possess a college degree, the college placement examination is not required. However, it will be necessary for the applicant to obtain two official copies of the college transcript showing the degree issued. One official transcript must be sent to the Respiratory Therapy Program Office and the other to the Admissions Office. If the degree was obtained at Mt. SAC, it is not necessary to request transcripts.

Transcripts should be addressed as follows:

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

Programs Leading to an Associates Degree

4. Submit an application for the Respiratory Therapy Program to the Technology and Health Division Office (Bldg. 28A, Room 101E), (909) 594-5611, Ext. 4750. All applications are dated upon receipt.
5. The following courses are advisory prerequisites. It is recommended, but not required, that these courses be completed prior to starting the program. Completion of these courses is mandatory prior to graduation from the respiratory therapy program:
 - a. MATH 51 Elementary Algebra, or equivalent
 - b. CHEM 10 Chemistry for Allied Health Majors, or equivalent
 - c. MEDI 90 Medical Terminology, or equivalent
 - d. ANAT 10A Introductory Human Anatomy, or equivalent
 - e. ANAT 10B Introductory Human Physiology, or equivalent

It is highly recommended that students complete their general education requirements prior to entering the program.

Foreign Transcripts:

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

Selection Procedure:

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

A.S. Degree Requirements:

All students entering the Respiratory Therapy Program MUST complete all the major course requirements and the general education requirements (including *General Psychology*) necessary to complete the Associate Degree before a Certificate of Completion in Respiratory Therapy will be granted. The Certificate will permit the student to sit for all National Board for Respiratory Care (NBRC), Incorporated, examinations.

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

A physical examination, including specific immunizations, is required of all candidates prior to beginning classes. These requirements are in accordance

with healthcare agency policy that insures that students are in good health and free from communicable disease and able to perform their training functions. Drug testing may also be required as a part of this physical examination.

Sign Language/Interpreting

**Sign Language Department
Major 20801**

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

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

Requirements for the Major

Required courses:

SIGN 80	American Sign Language I	4.0	CSU, UC
SIGN 81	American Sign Language II	4.0	CSU, UC
SIGN 82A	American Sign Language III	4.0	CSU, UC
SIGN 82B	American Sign Language IV	4.0	CSU, UC
SIGN 82C	American Sign Language V	4.0	
SIGN 83	Deaf Perspectives	3.0	
SIGN 85	American Deaf Culture	3.0	CSU, UC
SIGN 86	American Sign Language Structure	3.0	CSU, UC
SIGN 87	Translation: American Sign Language/English	3.0	
SIGN 88	Principles of Sign Language Interpreting	3.0	
SIGN 88A	Interpreting	4.0	
SIGN 88B	Advanced Interpreting	4.0	
SIGN 88L	Practicum	1.0	
SPCH 1A	Public Speaking, <i>or</i>	3.0	CSU, UC
SPCH 1AH	Public Speaking – Honors	3.0	CSU, UC
Total Units		47.0	

Recommended Electives:

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

Special Information:

To remain in the program, students must maintain a "C" or better grade in all courses.

Small Business Management

**Accounting and Management Department
Major 20508**

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

Requirements for the Major

Required courses:

BUSA 7	Principles of Accounting – Financial	5.0	CSU, UC
BUSM 10	Principles of Continuous Quality Improvement	3.0	
BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 60	Human Relations in Business	3.0	CSU
BUSM 61	Business Organization and Management	3.0	CSU
BUSM 62	Human Resource Management	3.0	
BUSM 66	Small Business Management	3.0	
BUSS 36	Principles of Marketing	3.0	CSU
CISB 15	Microcomputer Applications	4.0	CSU, UC
Total Units		30.0	

Recommended Electives:

BUSM 81	Work Experience in Business, <i>or</i>
BUSM 82	Work Experience in Business, <i>or</i>
BUSM 83	Work Experience in Business, <i>or</i>
BUSM 84	Work Experience in Business
BUSM 85	Special Issues in Business, <i>or</i>
BUSS 85	Special Issues in Marketing

Television Production

**Art Department
Major 20602**

This course of study qualifies the student for an Associate in Science Degree in Television Production and is designed to prepare a student for an entry-level job in the industry in a variety of areas, including camera operation, audio recordist and mixer, editor, DVD author, screenwriter, director, and general production crew-member. The program gives the student a solid basis in both the performance and the business sides of broadcasting and production. Students can further customize their program of study for on-the-air or

behind-the-scenes work by selecting from a variety of optional courses.

Requirements for the Major

Required courses:

R-TV 01	Introduction to Broadcasting	3.0	CSU
R-TV 15	Broadcast Business Practices	3.0	
R-TV 16	Broadcast Career Preparation	3.0	
R-TV 19A	Beginning Television Production	3.0	CSU
R-TV 19B	Advanced Television Production	3.0	CSU
R-TV 98A	Television/Film Seminar	1.0	
R-TV 98B	Television/Film Internship	1.0	

PLUS

Select twelve (12) units from:

R-TV 05	Radio and Television Newswriting	3.0	
R-TV 18	Writing for Television/Film	3.0	CSU
R-TV 20	Television News Production	3.0	
R-TV 21	Remote Television Production and Engineering	3.5	
R-TV 22	Electronic Graphics and Non-Linear Editing	3.0	

Total Units

29.0

Recommended Electives:

ANIM 115	Storyboarding
R-TV 26	Legal Issues in Entertainment Law
THTR 17	Acting for Television

Welding

**Air Conditioning, Welding & Water Technologies
Major 20919**

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

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

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

Requirements for the Major

Required courses:

WELD 40	Introduction to Welding	2.0	CSU
WELD 50	Oxyacetylene Welding	2.0	
WELD 51	Basic Electric Arc Welding	2.0	
WELD 53A	Welding Metallurgy	3.0	CSU
WELD 70A	Beginning Arc Welding	3.0	
WELD 70B	Intermediate Arc Welding	3.0	
WELD 70C	Certification for Welders	3.0	
WELD 80	Fabrication and Construction Welding	3.0	
	Total Units	21.0	

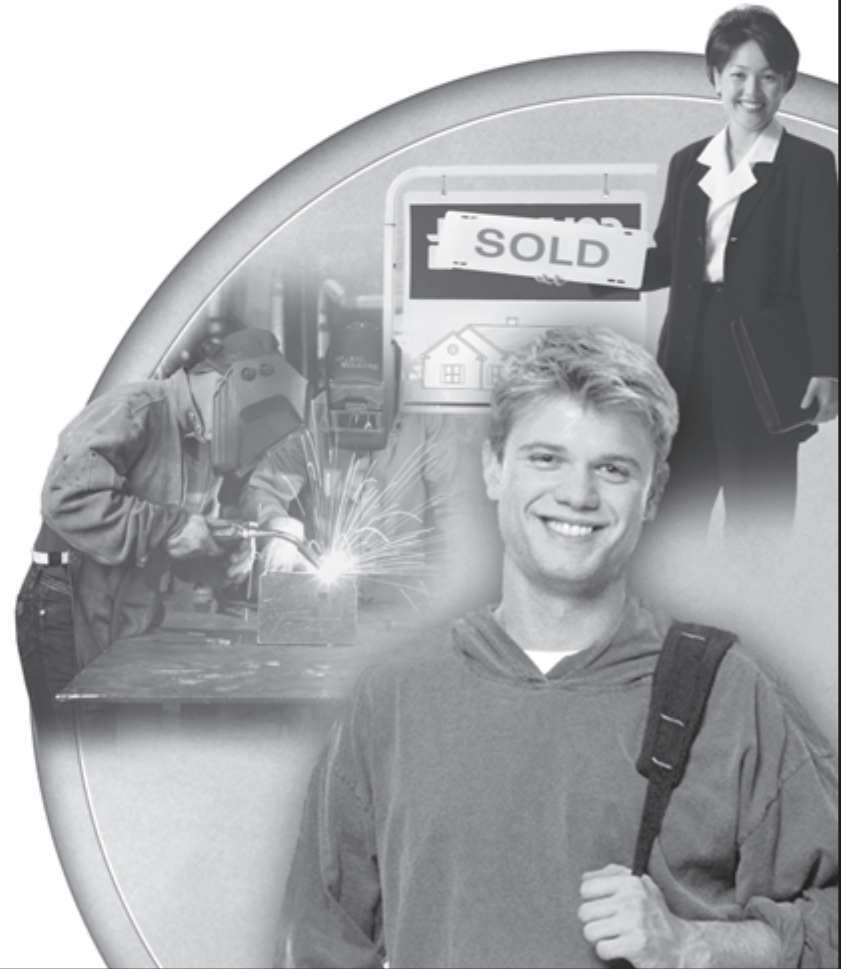
Recommended Electives:

BUSM 61	Business Organization and Management
EDT 11	Technical Engineering Drawing I
MFG 70	Technical Mathematics – Manufacturing Applications
WELD 30	Metal Sculpture
WELD 60	Print Reading and Computations for Welders
WELD 81	Pipe and Tube Welding

Section 8

Programs of Study Leading to a Certificate

PROGRAMS OF STUDY
LEADING TO A CERTIFICATE



PROGRAMS OF STUDY LEADING TO A CERTIFICATE

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

Students who are in the last semester of a certificate program must:

- Submit an Application for Certificate form in the Admissions Office
- At least 1/2 of the credits earned toward the certificate must be completed at Mt.SAC
- A grade of "C" or better must be earned in each course to be applied to the certificate

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

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

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

ALPHABETICAL LISTING — CERTIFICATES	
A	
Animation – Digital 3-Dimensional	69
Animation – Traditional	69
Accounting	66
Accounting – Bookkeeping	66
Accounting – Computerized	66
Accounting – Financial Planning	66
Accounting – Managerial	66
Accounting – Payroll	66
Administrative Assistant Level I	67
Administrative Assistant Level II	67
Administrative Assistant Level III	67
Air Conditioning and Refrigeration	67
Aircraft Powerplant Maintenance Technology – Day	67
Aircraft Powerplant Maintenance Technology – Evening	67
Airframe Maintenance Technology – Day	68
Airframe Maintenance Technology – Evening	68
Alcohol/Drug Counseling	68
Animation – Digital 2-Dimensional	69
B-C	
Business: Human Resource Management – Level I	71
Business: Human Resource Management – Level II	72
Business: Human Resource Management – Level III	72
Business: International – Level I	72
Business: International – Level II	72
Business: International – Level III	72
Business: Management – Level I	73
Business: Management – Level II	73
Business: Management – Level III	73
Business: Retail Management – Level I	73

ALPHABETICAL LISTING — CERTIFICATES (continued)	
Business: Retail Management – Level II	73
Business: Retail Management – Level III	73
Business: Small Business Management – Level I	74
Business: Small Business Management – Level II	74
Business: Small Business Management – Level III	74
Business Workplace Competencies	74
Children's Program Certificate: Administration	74
Children's Program Certificate: General – Level I	75
Children's Program Certificate: General – Level II	75
Children's Program Certificate: General – Level III	75
Children's Program Certificate – Small Business Management	75
Children's Program Certificate: Teaching	75
CIS – Professional Certificate in C# Programming	78
CIS – Professional Certificate in C++ Programming	78
CIS – Professional Certificate in Database Management – Microcomputers	78
CIS – Professional Certificate in Java Programming	78
CIS – Professional Certificate in Linux	78
CIS – Professional Certificate in Network Security	78
CIS – Professional Certificate in Networking	78
CIS – Professional Certificate in Object-Oriented Design & Programming	78
CIS – Professional Certificate in Oracle	78
CIS – Professional Certificate in SOA and Web Services	79
CIS – Professional Certificate in SQL	79
CIS – Professional Certificate in Telecommunications	79
CIS – Professional Certificate in Visual Basic	79
CIS – Professional Certificate in Web Programming	79
CIS – Professional Certificate in Windows Operating System Administration	79
Coaching	76
Computer and Networking Technology – Level I	76
Computer and Networking Technology – Level II	76
Computer Graphics Design/Photography	76
Computer Systems Technology	77
Construction Inspection	77
Consumer Services	77
Correctional Sciences	77
Culinary Arts – Level I	77
Data Entry	
Database Management Systems	79
Desktop Publishing	79
Educational Paraprofessional – Level I	
Educational Paraprofessional – Level II	80
Electronic Cabling and Wiring Technology – Level I	
Electronic Cabling and Wiring Technology – Level II	80
Electronics and Computer-Engineering Technology	
Electronics Communications	81
Electronics Technology	
Emergency Medical Technician – Paramedic (EMT-P)	81
Emergency Medical Technician I	82
Engineering Design Technology – Level I	82
Engineering Design Technology – Level II	82
Engineering Design Technology – Level III	82
Escrow Management	83
Family Child Care	
Fashion Design – Computer-Aided	83
Fashion Design – Level I	83
Fashion Design – Level II	83
Fashion Merchandising – Level I	83

PROGRAMS OF STUDY LEADING TO A CERTIFICATE

Programs of Study Leading to a Certificate

ALPHABETICAL LISTING — CERTIFICATES (continued)

Fashion Merchandising – Level II	84	Livestock Management	89
Fire Administration	84	LVN – 30 Unit Option – Career	
Fire Management	84	Mobility Track	89
Fire Technology	84		
Fitness Specialist/Personal Trainer	84	M - N	
Floral Design	85	Machine Operator	90
Foster Care	85	Manufacturing Technology	90
Gallery Design/Operation and Art Profession	85	Marketing Management	90
Geographic Information Systems	85	MasterCAM	90
Horse Ranch Management	85	Medical Office Specialist	90
Hospitality: Catering	85	Mental Health Technology – Psychiatric	
Hospitality: Food Services	85	Technician	90
Hospitality: Hospitality Management –		Microcomputer Productivity Software	91
level I	85	Nursery Management	91
Hospitality: Hospitality Management –		Nutrition Program Assistant – Level I	91
level II	86	Nutrition Program Assistant – Level II:	
Hospitality: Restaurant Management –		Child Program Emphasis	92
level I	86	Nutrition Program Assistant – Level II:	
Hospitality: Restaurant Management –		Weight Management Program Emphasis	92
level II	86		
		O - P - Q	
I - J - K		Parametric Solid Modeling	92
Industrial Electronics	86	Park Management	92
Infant/Toddler Development	86	Pet Science	92
Information & Operating Systems Security	86	Photography	92
Interior Design – Level I – Merchandising	86	Programming in C++	92
Interior Design – Level II – Design	87	Programming in Visual Basic	93
Interior Design – Level III – Professional			
Designation	87	R	
Interior Landscaping	87	Radio Broadcasting: Behind the Scenes	93
Introduction to Computer Information		Radio Broadcasting: On the Air	93
Technology	87	Real Estate	93
Kitchen and Bath Design	87	Real Estate Appraisal	93
		Recreation Technology	93
		S - T	
Landscape and Park Maintenance	88	School Age Child-Specialization	94
Landscape Design and Construction	88	Sign Language/Interpreting	94
Landscape Equipment Technology	88	Sports Turf Management	94
Landscape Irrigation	88	SurfCAM	94
Law Enforcement	88	Telecommunications	94
Legal Office Specialist	89	Television Production	94
		Theatrical Costumer	94
		Tree Care and Maintenance	95

ALPHABETICAL LISTING — CERTIFICATES (continued)

U - V - W

Water Technology	95
Web Page Design	95
Welding	95

LISTING BY INSTRUCTIONAL DIVISION — CERTIFICATES

Arts Division

Animation – Digital 2 Dimensional	69
Animation – Digital 3 Dimensional	69
Animation – Traditional	69
Art: Aesthetics for Technology	71
Computer Graphics Design/Photography	76
Gallery Design/Operation & Art Profession	85
Radio Broadcasting: Behind the Scenes	93
Radio Broadcasting: On the Air	93
Television Production	94
Theatrical Costumer	94

Business & Economic Development Division

Accounting	66
Accounting – Bookkeeping	66
Accounting – Computerized	66
Accounting – Financial Planning	66
Accounting – Managerial	66
Accounting – Payroll	66
Administrative Assistant – Level I	67
Administrative Assistant – Level II	67
Administrative Assistant – Level III	67
Business: Human Resource Management –	
Level I	71
Business: Human Resource Management –	
Level II	71
Business: Human Resource Management –	
Level III	72
Business: International – Level I	72
Business: International – Level II	72
Business: International – Level III	72
Business: Business Management – Level I	73
Business: Business Management – Level II	73
Business: Business Management – Level III	73
Business: Business Retail Management –	
Level I	73
Business: Business Retail Management –	
Level II	73

Business: Business Retail Management –	
Level III	73
Business: Small Business Management –	
Level I	74
Business: Small Business Management –	
Level II	74
Business: Small Business Management –	
Level III	74
Business Workplace Competencies	74
Children's Program Certificate:	
Administration	74
Children's Program Certificate:	
General – Level I	75
Children's Program Certificate:	
General – Level II	75
Children's Program Certificate:	
General – Level III	75
Children's Program Certificate:	
Small Business Management	75
Children's Program Certificate: Teaching	75
CIS – Professional Certificate in	
C# Programming	78
CIS – Professional Certificate in	
C++ Programming	78
CIS – Professional Certificate in Database	
Management – Microcomputers	78
CIS – Professional Certificate in Java	
Programming	78
CIS – Professional Certificate in Linux	78
CIS – Professional Certificate in	
Network Security	78
CIS – Professional Certificate in Networking	78
CIS – Professional Certificate in Object-	
Oriented Design & Programming	78
CIS – Professional Certificate in Oracle	78
CIS – Professional Certificate in SOA and	
Web Services	79
CIS – Professional Certificate in SQL	79

LISTING BY INSTRUCTIONAL DIVISION — CERTIFICATES (continued)

CIS – Professional Certificate in Telecommunications 79	Humanities & Social Sciences Division
CIS – Professional Certificate in Visual Basic 79	Educational Paraprofessional – Level I 80
CIS – Professional Certificate in Web Programming 79	Educational Paraprofessional – Level II 80
CIS – Professional Certificate in Web Programming 79	Geographic Information Systems 85
CIS – Professional Certificate in Windows Operating System Administration 79	Sign Language/Interpreting 94
Consumer Services 77	Natural Sciences Division
Culinary Arts – Level I 77	Floral Design 85
Data Entry 79	Horse Ranch Management 85
Database Management Systems 79	Interior Landscaping 87
Desktop Publishing 79	Landscape and Park Maintenance 88
Escrow Management 83	Landscape Design and Construction 88
Family Child Care 83	Landscape Equipment Technology 88
Fashion Design – Computer-Aided 83	Landscape Irrigation 88
Fashion Design – Level I 83	Livestock Management 89
Fashion Design – Level II 83	Nursery Management 91
Fashion Merchandising – Level I 83	Park Management 92
Fashion Merchandising – Level II 84	Pet Science 92
Foster Care 85	Photography 92
Hospitality: Catering 85	Sports Turf Management 94
Hospitality: Food Services 85	Tree Care and Maintenance 95
Hospitality: Hospitality Management – level I 85	Physical Education Division
Hospitality: Hospitality Management – level II 86	Athletic Trainer Aide I 71
Hospitality: Restaurant Management – level I 86	Coaching 76
Hospitality: Restaurant Management – level II 86	Fitness Specialist/Personal Trainer 84
Infant/Toddler Development 86	Recreation Technology 93
Interior Design – Level I – Merchandising 86	Technology and Health Division
Interior Design – Level II – Design 86	Air Conditioning and Refrigeration 67
Interior Design – Professional Designation 87	Aircraft Powerplant Maintenance Technology – Day 67
Introduction to Computer Information Technology 87	Aircraft Powerplant Maintenance Technology – Evening 67
Kitchen and Bath Design 87	Airframe Maintenance Technology – Day 68
Legal Office Specialist 89	Airframe Maintenance Technology – Evening 68
Marketing Management 90	Alcohol/Drug Counseling 68
Medical Office Specialist 90	Architectural Technology – Level I 70
Microcomputer Productivity Software 91	Architectural Technology – Level II 70
Nutrition Program Assistant – Level I 91	Architectural Technology – Level III 71
Nutrition Program Assistant – Level II: Child Program Emphasis 92	Computer and Networking Technology – Level I 76
Nutrition Program Assistant – Level II: Weight Management Program Emphasis 92	Computer and Networking Technology – Level II 76
Programming in C++ 92	Computer Systems Technology 77
Programming in Visual Basic 93	Construction Inspection 77
Real Estate 93	Correctional Sciences 77
Real Estate Appraisal 93	Electronic Cabling and Wiring Technology – Level I 80
School Age Child-Specialization 94	
Telecommunications 94	

LISTING BY INSTRUCTIONAL DIVISION — CERTIFICATES (continued)

Electronic Cabling and Wiring Technology – Level II 80
Electronics and Computer – Engineering Technology 80
Electronics Communications 81
Electronics Technology 81
Emergency Medical Technician – Paramedic (EMT-P) 81
Emergency Medical Technician I 82
Engineering Design Technology – Level I 82
Engineering Design Technology – Level II 82
Engineering Design Technology – Level III 82
Fire Administration 84
Fire Management 84
Fire Technology 84
Industrial Electronics 86
Law Enforcement 88
LVN – 30 Unit Option – Career Mobility Track 89
Machine Operator 90
Manufacturing Technology 90
MasterCAM 90
Mental Health Technology – Psychiatric Technician 90
Parametric Solid Modeling 92
SurfCAM 94
Water Technology 95
Welding 95

Programs of Study Leading to a Certificate

Accounting

Accounting and Management Department Certificate 60502

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

Requirements for the Certificate

Required courses:

Completion of the Accounting: Financial Planning Certificate (21 Units) or Accounting: Managerial Certificate (19 Units) as follows:

BUSA 7	Principles of Accounting – Financial	5.0	CSU, UC
BUSA 8	Principles of Accounting – Managerial	5.0	CSU, UC
BUSA 21	Cost Accounting, <i>or</i>	4.0	
BUSA 58	Federal Income Tax Law	3.0	
BUSA 75	Using Microcomputers in Financial Accounting, <i>or</i>	1.0	
BUSA 81	Work Experience in Accounting	1.0	
BUSA 76	Using Microcomputers in Managerial Accounting, <i>or</i>	1.0	
BUSA 81	Work Experience in Accounting	1.0	
BUSO 25	Business Communications	3.0	CSU

Plus the following courses:

BUSA 21	Cost Accounting, <i>or</i>	4.0	
BUSA 58	Federal Income Tax Law	3.0	
BUSA 52	Intermediate Accounting	3.0	
BUSA 70	Payroll and Tax Accounting	3.0	
BUSM 20	Principles of Business	3.0	CSU, UC

Total Units 30.0 - 32.0

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

Accounting — Bookkeeping

Accounting and Management Department Certificate 60504

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.

Requirements for the Certificate

Required courses:

BUSA 7	Principles of Accounting – Financial, <i>or</i>	5.0	CSU, UC
BUSA 72	Bookkeeping – Accounting	5.0	
BUSA 53	Ten-Key Calculations, <i>or</i>	2.0	
BUSA 81	Work Experience in Accounting	1.0	
BUSO 5	Business English, <i>or</i>	3.0	
BUSO 25	Business Communications	3.0	CSU

Total Units 9.0 - 10.0

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

Accounting — Computerized Accounting and Management Department Certificate 60503

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

Requirements for the Certificate

Required courses:

Completion of the Accounting – Bookkeeping Certificate (9-10 Units) as follows:

BUSA 7	Principles of Accounting – Financial, <i>or</i>	5.0	CSU, UC
BUSA 72	Bookkeeping – Accounting	5.0	
BUSA 53	Ten-Key Calculations, <i>or</i>	2.0	
BUSA 81	Work Experience in Accounting	1.0	
BUSO 5	Business English, <i>or</i>	3.0	
BUSO 25	Business Communications	3.0	CSU

Plus the following courses:

BUSA 75	Using Microcomputers in Financial Accounting, <i>or</i>	1.0	
BUSA 81	Work Experience in Accounting	1.0	
BUSA 76	Using Microcomputers in Managerial Accounting, <i>or</i>	1.0	
BUSA 81	Work Experience in Accounting	1.0	
CISB 15	Microcomputer Applications	4.0	CSU, UC

PLUS

Select 3.5 Units from:

BUSA 81	Work Experience in Accounting	1.0	
CISB 11	Computer Information Systems	3.5	CSU, UC
CISB 13	Microsoft Windows	2.0	CSU
CISB 21	Microsoft Excel	4.0	
CISW 11	The Internet	4.0	CSU
COMP 11	Internet Research for Business	2.0	CSU
COMP 20	Microsoft Word	4.0	

Total Units 18.5 - 19.5

Accounting — Financial Planning Accounting and Management Department Certificate 60509

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

Requirements for the Certificate

Required courses:

BUSA 7	Principles of Accounting – Financial	5.0	CSU, UC
BUSA 8	Principles of Accounting – Managerial	5.0	CSU, UC
BUSA 58	Federal Income Tax Law	3.0	
BUSA 71	Financial Planning	3.0	
BUSA 75	Using Microcomputers in Financial Accounting, <i>or</i>	1.0	
BUSA 81	Work Experience in Accounting	1.0	
BUSA 76	Using Microcomputers in Managerial Accounting, <i>or</i>	1.0	
BUSA 81	Work Experience in Accounting	1.0	
BUSO 25	Business Communications	3.0	CSU

Total Units 21.0

Accounting — Managerial

Accounting and Management Department Certificate 60533

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

Requirements for the Certificate

Required courses:

BUSA 7	Principles of Accounting – Financial	5.0	CSU, UC
BUSA 8	Principles of Accounting – Managerial	5.0	CSU, UC
BUSA 21	Cost Accounting	4.0	
BUSA 75	Using Microcomputers in Financial Accounting, <i>or</i>	1.0	
BUSA 81	Work Experience in Accounting	1.0	
BUSA 76	Using Microcomputers in Managerial Accounting, <i>or</i>	1.0	
BUSA 81	Work Experience in Accounting	1.0	
BUSO 25	Business Communications	3.0	CSU

Total Units 19.0

Accounting — Payroll

Accounting and Management Department Certificate 60505

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

Requirements for the Certificate

Required courses:

Completion of Accounting – Bookkeeping Certificate as follows:

BUSA 7	Principles of Accounting – Financial, <i>or</i>	5.0	CSU, UC
BUSA 72	Bookkeeping – Accounting	5.0	
BUSA 53	Ten-Key Calculations, <i>or</i>	2.0	
BUSA 81	Work Experience in Accounting	1.0	
BUSO 5	Business English, <i>or</i>	3.0	
BUSO 25	Business Communications	3.0	CSU

Plus the following courses:

BUSA 70	Payroll and Tax Accounting	3.0	
BUSA 75	Using Microcomputers in Financial Accounting, <i>or</i>	1.0	
BUSA 81	Work Experience in Accounting	1.0	
BUSA 76	Using Microcomputers in Managerial Accounting, <i>or</i>	1.0	
BUSA 81	Work Experience in Accounting	1.0	

Total Units 14.0 - 15.0

Administrative Assistant — Level I
Office Technology Department
Certificate 60516

The Level I Certificate prepares students for entry-level clerical positions where keyboarding is the primary function.

Requirements for the Certificate

Required courses:

BUSO 5	Business English	3.0	
COMP 1	Computer Keyboarding, <i>or</i>	4.0	CSU
COMP 1A	Computer Keyboarding, and	2.0	CSU
COMP 1B	Computer Keyboarding	2.0	CSU
COMP 12	Office Computer Applications, <i>or</i>	4.0	CSU, UC
CISB 15	Microcomputer Applications	4.0	CSU, UC
COMP 28	Office Management Skills	3.0	
Total Units		14.0	

Administrative Assistant — Level II
Office Technology Department
Certificate 60514

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

Requirements for the Certificate

Required courses:

Completion of the Administrative Support – Level I Certificate (10.5 - 11 units) as follows:

BUSO 5	Business English	3.0	
COMP 1	Computer Keyboarding, <i>or</i>	4.0	CSU
COMP 1A	Computer Keyboarding, and	2.0	CSU
COMP 1B	Computer Keyboarding	2.0	CSU
COMP 12	Office Computer Applications, <i>or</i>	4.0	CSU, UC
CISB 15	Microcomputer Applications	4.0	CSU, UC
COMP 28	Office Management Skills	3.0	

Plus the following courses:

Level II as follows:

BUSO 25	Business Communications	3.0	CSU
COMP 2	Intermediate Computer Keyboarding	4.0	
COMP 20	Word for the Business Professional, <i>or</i>	4.0	
COMP 120A	Microsoft Word – Level 1, <i>and</i>	1.0	
COMP 120B	Microsoft Word – Level 2	1.0	
COMP 68	Transcription Techniques	3.0	

Total Units 26.0 - 28.0

Administrative Assistant — Level III
Office Technology Department
Certificate 60517

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

Requirements for the Certificate

Required courses:

Completion of the Administrative Support – Level I Certificate (18.5 - 21 units) as follows:

BUSO 5	Business English	3.0	
COMP 1	Computer Keyboarding, <i>or</i>	4.0	CSU
COMP 1A	Computer Keyboarding, and	2.0	CSU
COMP 1B	Computer Keyboarding	2.0	CSU
COMP 12	Office Computer Applications, <i>or</i>	4.0	CSU, UC
CISB 15	Microcomputer Applications	4.0	CSU, UC
COMP 28	Office Management Skills	3.0	

Required courses:

Completion of the Administrative Support – Level II Certificate (18.5 - 21 units) as follows:

BUSO 25	Business Communications	3.0	CSU
COMP 2	Intermediate Computer Keyboarding	4.0	
COMP 20	Word for the Business Professional, <i>or</i>	4.0	
COMP 120A	Microsoft Word – Level 1, <i>and</i>	1.0	
COMP 120B	Microsoft Word – Level 2	1.0	
COMP 68	Transcription Techniques	3.0	

Plus the following courses:

Level III as follows:

BUSO 26	Oral Communications for Business	3.0	
BUSO 96A	Business Vocabulary	1.5	
COMP 11	Internet Research for Business	2.0	CSU
COMP 13	Using Web Page Software	4.0	CSU
COMP 60	Desktop Publishing with InDesign or Pagemaker	4.0	CSU
COMP 150	Basic PowerPoint, <i>or</i>	1.0	
COMP 50	Desktop Presentations using PowerPoint	4.0	CSU

Total Units 41.5 - 46.5

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

This program is designed to prepare the student for employment in the broad field of air conditioning,

heating, and refrigeration. It leads to occupations in design, manufacturing, operation, sales, distribution, installation, maintenance, and repair. Students desiring a Bachelor's Degree (*transfer program*) should consult with an advisor to discuss transferability of courses.

Requirements for the Certificate

Required courses:

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

Aircraft Powerplant Maintenance Technology — Day

Aircraft Maintenance Technology & Manufacturing Department
Certificate 60912

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

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

Day program courses AIRM 66A and 66B are equivalent to evening program courses AIRM 90A, 90B, 91A, 91B, 92A, 92B, 93A, and 93B.

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

Requirements for the Certificate

Required courses:

AIRM 65A	Aircraft Powerplant Maintenance Technology	12.0	CSU
AIRM 65B	Aircraft Powerplant Maintenance Technology	12.0	
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	Aviation Materials and Processes	1.5	
AIRM 73	Aviation Welding	1.5	

Total Units 39.0

Recommended Electives:

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

Aircraft Powerplant Maintenance Technology — Evening

Aircraft Maintenance Technology & Manufacturing Department
Certificate 60952

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

PROGRAMS OF STUDY
LEADING TO A CERTIFICATE

Programs of Study Leading to a Certificate

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

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

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

Requirements for the Certificate

Required courses:

AIRM 70A	Aircraft Maintenance Electricity and Electronics	3.0
AIRM 70B	Aircraft Maintenance Electricity and Electronics	3.0
AIRM 71	Aviation Maintenance Science	6.0
AIRM 72	Aviation Materials and Processes	1.5
AIRM 73	Aviation Welding	1.5
AIRM 95A	Aircraft Powerplant Maintenance Technology	3.0
AIRM 95B	Aircraft Powerplant Maintenance Technology	3.0
AIRM 96A	Aircraft Powerplant Maintenance Technology	3.0
AIRM 96B	Aircraft Powerplant Maintenance Technology	3.0
AIRM 97A	Aircraft Powerplant Maintenance Technology	3.0
AIRM 97B	Aircraft Powerplant Maintenance Technology	3.0
AIRM 98A	Aircraft Powerplant Maintenance Technology	3.0
AIRM 98B	Aircraft Powerplant Maintenance Technology	3.0
Total Units		39.0

Recommended Electives:

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

Airframe Maintenance Technology — Day

Aircraft Maintenance Technology & Manufacturing Department Certificate 60911

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

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

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

Requirements for the Certificate

Required courses:

AIRM 66A	Airframe Maintenance Technology	12.0	CSU
AIRM 66B	Airframe Maintenance Technology	12.0	
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	Aviation Materials and Processes	1.5
AIRM 73	Aviation Welding	1.5
Total Units		39.0

Recommended Electives:

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

Airframe Maintenance Technology — Evening

Aircraft Maintenance Technology & Manufacturing Department Certificate 60951

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

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

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

Requirements for the Certificate

Required courses:

AIRM 70A	Aircraft Maintenance Electricity and Electronics	3.0
AIRM 70B	Aircraft Maintenance Electricity and Electronics	3.0
AIRM 71	Aviation Maintenance Science	6.0
AIRM 72	Aviation Materials and Processes	1.5
AIRM 73	Aviation Welding	1.5
AIRM 90A	Airframe Maintenance Technology	3.0
AIRM 90B	Airframe Maintenance Technology	3.0
AIRM 91A	Airframe Maintenance Technology	3.0
AIRM 91B	Airframe Maintenance Technology	3.0
AIRM 92A	Airframe Maintenance Technology	3.0
AIRM 92B	Airframe Maintenance Technology	3.0
AIRM 93A	Airframe Maintenance Technology	3.0
AIRM 93B	Airframe Maintenance Technology	3.0
Total Units		39.0

Recommended Electives:

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

Alcohol/Drug Counseling

Public Services Department Certificate 62101

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

Requirements for the Certificate

Required core courses:

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

Required skill courses:

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

Required field work courses:

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

PLUS

Select two (2) courses from:

CHLD 10	Child Growth and Development, <u>or</u>	3.0	CSU, UC
CHLD 10H	Child Growth and Development – Honors, <u>or</u>	3.0	CSU, UC
SOC 1	Sociology	3.0	CSU, UC
PSYC 1A	General Psychology	3.0	CSU, UC
PSYC 19	Abnormal Psychology	3.0	CSU, UC
SOC 14	Marriage and the Family	3.0	CSU, UC
SOC 15	Child Development	3.0	CSU, UC

Total Units 40.0

Selection Procedure:

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

Special Instructions:

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

Animation — Digital 2-Dimensional Art Department Certificate 61011

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

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

Requirements for the Certificate

Required courses:

ANIM 101	Drawing – Gesture and Figure	3.0	CSU
ANIM 104	Drawing Fundamentals	3.0	CSU
ANIM 108	Principles of Animation	3.0	CSU
ANIM 115	Storyboarding	3.0	
ANIM 116	Character Development	1.5	
ANIM 119	Portfolio, <u>or</u>	1.5	
ARTC 66	Portfolio	3.0	
ANIM 120	Script Development for Animation	3.0	
ANIM 172	Motion Graphics with After Effects	3.0	
ANIM 175	Web Animation with Flash	3.0	
ARTC 70	Computer Graphics: Introduction	3.0	CSU
ARTC 74	Computer Graphics: Web Page Design	3.0	CSU
ARTD 17A	Drawing: Life	3.0	CSU, UC

Total Units 33.0 - 34.5

Recommended Electives:

ANIM 107	Figure in Motion
ANIM 109	Advanced Principles of Animation
ANIM 130	Introduction to 3-D Computer Animation
ANIM 137A	Work Experience in New Digital Media, <u>or</u>
ANIM 137B	Work Experience in New Digital Media, <u>or</u>
ANIM 137C	Work Experience in New Digital Media
ANIM 148	Demo-Reel
ARTD 16	Drawing: Perspective
ARTD 20	Design: Two Dimensional
PHOT 10	Beginning Photography

Animation — Digital 3-Dimensional Art Department Certificate 61012

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

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

Requirements for the Certificate

Required courses:

ANIM 101	Drawing – Gesture and Figure	3.0	CSU
ANIM 104	Drawing Fundamentals	3.0	CSU
ANIM 108	Principles of Animation	3.0	CSU
ANIM 115	Storyboarding	3.0	
ANIM 116	Character Development	1.5	
ANIM 130	Introduction to 3-D Computer Animation	3.0	
ANIM 132	Modeling, Texture Mapping and Lighting	3.0	
ANIM 134	Visual Effects I: Dynamics	1.5	
ANIM 135	Visual Effects II: Particle Systems	1.5	
ANIM 136	Animation Environment Layout	3.0	
ANIM 145	Advanced 3-D Modeling	3.0	
ANIM 146	3-D Animation	3.0	
ANIM 148	Demo-Reel	1.5	
ARTC 70	Computer Graphics: Introduction	3.0	CSU
ARTD 17A	Drawing: Life	3.0	CSU, UC

Total Units 39.0

Recommended Electives:

ANIM 107	Figure in Motion
ANIM 109	Advanced Principles of Animation
ANIM 119	Portfolio, <u>or</u>
ARTC 66	Portfolio
ANIM 120	Script Development for Animation
ANIM 137A	Work Experience in New Digital Media, <u>or</u>
ANIM 137B	Work Experience in New Digital Media, <u>or</u>
ANIM 137C	Work Experience in New Digital Media

ANIM 172	Motion Graphics with After Effects
ANIM 175	Web Animation with Flash
ARTD 16	Drawing: Perspective
ARTD 17B	Drawing: Life
ARTD 20	Design: Two Dimensional
ARTS 41A	Sculpture: Life
PHOT 10	Beginning Photography

Animation — Traditional

Art Department Certificate 61010

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

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

Requirements for the Certificate

Required courses:

ANIM 101	Drawing – Gesture and Figure	3.0	CSU
ANIM 104	Drawing Fundamentals	3.0	CSU
ANIM 108	Principles of Animation	3.0	CSU
ANIM 109	Advanced Principles of Animation	3.0	
ANIM 111	Animal Drawing	1.5	
ANIM 115	Storyboarding	3.0	
ANIM 116	Character Development	1.5	
ANIM 117	Animation Background Layout, <u>or</u>	3.0	CSU
ARTC 165	Illustration	3.0	CSU
ANIM 119	Portfolio, <u>or</u>	1.5	
ARTC 66	Portfolio	3.0	
ANIM 120	Script Development for Animation	3.0	
ANIM 175	Web Animation with Flash	3.0	
ARTC 70	Computer Graphics: Introduction	3.0	CSU
ARTD 16	Drawing: Perspective	3.0	CSU, UC
ARTD 17A	Drawing: Life	3.0	CSU, UC
ARTD 23A	Drawing: Head and Hands	1.5	CSU, UC

Total Units 39.0 - 40.5

PROGRAMS OF STUDY
LEADING TO A CERTIFICATE

Programs of Study Leading to a Certificate

Recommended Electives:

ANIM 107	Figure in Motion
ANIM 130	Introduction to 3-D Computer Animation
ANIM 137A	Work Experience in New Digital Media, <i>or</i>
ANIM 137B	Work Experience in New Digital Media, <i>or</i>
ANIM 137C	Work Experience in New Digital Media
ARTD 17B	Drawing: Life
ARTD 20	Design: Two Dimensional
ARTS 22	Design: Three-Dimensional
ARTS 41A	Sculpture: Life
PHOT 8	Digital Photography

**Architectural Technology — Level I
Architecture and Engineering Design
Department
Certificate 60201**

This multi-level certificate program is intended to prepare students to enter the field of architecture and related areas. The student is provided with an option of direct employment into the field or preparation for transfer to the professional school of architecture. The student will be required to develop both design and working drawing portfolios. Current technology and computer (CADD) skills are integrated into the program. An A.S. Degree program is also available.

Requirements for the Certificate

Required courses:

ARCH 10	Design I – Elements of Design	3.0	CSU
ARCH 11	Architectural Drawing	3.0	CSU, UC
ARCH 12	Architectural Materials and Specifications	3.0	CSU
ARCH 13	Architectural Illustration	3.0	CSU, UC
ARCH 14	Building and Zoning Codes	3.0	
ARCH 15	Architectural Working Drawings – I	3.0	CSU
ARCH 16	Basic CAD and Computer Application	4.0	CSU, UC
ARCH 18	Architectural Computer Aided Design Elements	3.0	

PLUS

Select six (6) units from:

ARTA 5	History of Western Art: Renaissance Through Modern, <i>or</i>	3.0	CSU, UC
ARTA 5H	History of Western Art: Renaissance Through Modern – Honors	3.0	CSU, UC
BIOL 5	Contemporary Health Issues	3.0	CSU, UC
BIOL 6	Humans and the Environment	3.0	CSU, UC

BUSC 1A	Principles of Economics – Macroeconomics, <i>or</i>	3.0	CSU, UC
BUSC 1AH	Principles of Economics – Macroeconomics – Honors	3.0	CSU, UC
ENGL 1A	Freshman Composition, <i>or</i>	3.0	CSU, UC
ENGL 1AH	Freshman Composition – Honors	3.0	CSU, UC
ENGL 1B	English – Introduction to Literary Types, <i>or</i>	3.0	CSU, UC
ENGL 1BH	English – Introduction to Literary Types – Honors	3.0	CSU, UC
ENGL 1C	Critical Thinking and Writing, <i>or</i>	3.0	CSU, UC
ENGL 1CH	Critical Thinking and Writing – Honors	3.0	CSU, UC
FCS 41	Life Management	3.0	CSU
HIST 3	History of World Civilization	3.0	CSU, UC
MATH 51	Elementary Algebra	4.0	
MATH 71	Intermediate Algebra	5.0	
MATH 150	Trigonometry	3.0	CSU
PHIL 5	Introduction to Philosophy, <i>or</i>	3.0	CSU, UC
PHIL 5H	Introduction to Philosophy – Honors	3.0	CSU, UC
PHIL 12	Ethics, <i>or</i>	3.0	CSU, UC
PHIL 12H	Ethics – Honors	3.0	CSU, UC
PHYS 2AG	General Physics	4.0	CSU, UC
PSYC 1A	Introduction to Psychology, <i>or</i>	3.0	CSU, UC
PSYC 1AH	Introduction to Psychology – Honors	3.0	CSU, UC
PSYC 33	Psychology for Effective Living	3.0	CSU
SOC 1	Sociology, <i>or</i>	3.0	CSU, UC
SOC 1H	Sociology – Honors	3.0	CSU, UC
SPCH 1A	Public Speaking, <i>or</i>	3.0	CSU, UC
SPCH 1AH	Public Speaking – Honors	3.0	CSU, UC
Total Units		31.0	

**Architectural Technology — Level II
Architecture and Engineering Design
Department
Certificate 60203**

This multi-level Certificate program is intended to prepare students to enter the field of architecture and related areas. The student is provided with an option of direct employment into the field or preparation for transfer to the professional school of architecture. The student will be required to develop both design and working drawing portfolios. Current technology and computer (CADD) skills are integrated into the program. An A.S. Degree program is also available.

Requirements for the Certificate

Required courses:

Completion of the Architectural Technology – Level I Certificate (31 units) as follows:

ARCH 10	Design I – Elements of Design	3.0	CSU
ARCH 11	Architectural Drawing	3.0	CSU, UC
ARCH 12	Architectural Materials and Specifications	3.0	CSU
ARCH 13	Architectural Illustration	3.0	CSU, UC
ARCH 14	Building and Zoning Codes	3.0	
ARCH 15	Architectural Working Drawings – I	3.0	CSU
ARCH 16	Basic CAD and Computer Application	4.0	CSU, UC
ARCH 18	Architectural Computer Aided Design Elements	3.0	

PLUS

Level I – Select six units from:

ARTA 5	History of Western Art: Renaissance Through Modern, <i>or</i>	3.0	CSU, UC
ARTA 5H	History of Western Art: Renaissance Through Modern – Honors	3.0	CSU, UC
BIOL 5	Contemporary Health Issues	3.0	CSU, UC
BIOL 6	Humans and the Environment	3.0	CSU, UC
BUSC 1A	Principles of Economics – Macroeconomics, <i>or</i>	3.0	CSU, UC
BUSC 1AH	Principles of Economics – Macroeconomics – Honors	3.0	CSU, UC
ENGL 1A	Freshman Composition, <i>or</i>	3.0	CSU, UC
ENGL 1AH	Freshman Composition – Honors	3.0	CSU, UC
ENGL 1B	English – Introduction to Literary Types, <i>or</i>	3.0	CSU, UC
ENGL 1BH	English – Introduction to Literary Types – Honors	3.0	CSU, UC
ENGL 1C	Critical Thinking and Writing, <i>or</i>	3.0	CSU, UC
ENGL 1CH	Critical Thinking and Writing – Honors	3.0	CSU, UC
FCS 41	Life Management	3.0	CSU
HIST 3	History of World Civilization	3.0	CSU, UC
MATH 51	Elementary Algebra	4.0	
MATH 71	Intermediate Algebra	5.0	
MATH 150	Trigonometry	3.0	CSU
PHIL 5	Introduction to Philosophy, <i>or</i>	3.0	CSU, UC
PHIL 5H	Introduction to Philosophy – Honors	3.0	CSU, UC
PHIL 12	Ethics, <i>or</i>	3.0	CSU, UC
PHIL 12H	Ethics – Honors	3.0	CSU, UC

PHYS 2AG	General Physics	4.0	CSU, UC
PSYC 1A	Introduction to Psychology, <i>or</i>	3.0	CSU, UC
PSYC 1AH	Introduction to Psychology – Honors	3.0	CSU, UC
PSYC 33	Psychology for Effective Living	3.0	CSU
SOC 1	Sociology, <i>or</i>	3.0	CSU, UC
SOC 1H	Sociology – Honors	3.0	CSU, UC
SPCH 1A	Public Speaking, <i>or</i>	3.0	CSU, UC
SPCH 1AH	Public Speaking – Honors	3.0	CSU, UC

PLUS

Additional required courses:

Level II as follows:

ARCH 21	Design II – Architectural Design	3.0	CSU
ARCH 23	Architectural Presentations	3.0	CSU
ARCH 26	Architectural CAD Working Drawings	3.0	
EDT 20	Technical Descriptive Geometry	3.0	CSU

PLUS

Select three (3) units from:

ARTA 5	History of Western Art: Renaissance Through Modern, <i>or</i>	3.0	CSU, UC
ARTA 5H	History of Western Art: Renaissance Through Modern – Honors	3.0	CSU, UC
BIOL 5	Contemporary Health Issues	3.0	CSU, UC
BIOL 6	Humans and the Environment	3.0	CSU, UC
BUSC 1A	Principles of Economics – Macroeconomics, <i>or</i>	3.0	CSU, UC
BUSC 1AH	Principles of Economics – Macroeconomics – Honors	3.0	CSU, UC
ENGL 1A	Freshman Composition, <i>or</i>	3.0	CSU, UC
ENGL 1AH	Freshman Composition – Honors	3.0	CSU, UC
ENGL 1B	English – Introduction to Literary Types, <i>or</i>	3.0	CSU, UC
ENGL 1BH	English – Introduction to Literary Types – Honors	3.0	CSU, UC
ENGL 1C	Critical Thinking and Writing, <i>or</i>	3.0	CSU, UC
ENGL 1CH	Critical Thinking and Writing – Honors	3.0	CSU, UC
FCS 41	Life Management	3.0	CSU
HIST 3	History of World Civilization	3.0	CSU, UC
MATH 51	Elementary Algebra	4.0	
MATH 71	Intermediate Algebra	5.0	
MATH 150	Trigonometry	3.0	CSU
PHIL 5	Introduction to Philosophy, <i>or</i>	3.0	CSU, UC
PHIL 5H	Introduction to Philosophy – Honors	3.0	CSU, UC

PHIL 12	Ethics, <i>or</i>	3.0	CSU, UC
PHIL 12H	Ethics – Honors	3.0	CSU, UC
PHYS 2AG	General Physics	4.0	CSU, UC
PSYC 1A	Introduction to Psychology, <i>or</i>	3.0	CSU, UC
PSYC 1AH	Introduction to Psychology – Honors	3.0	CSU, UC
PSYC 33	Psychology for Effective Living	3.0	CSU
SOC 1	Sociology, <i>or</i>	3.0	CSU, UC
SOC 1H	Sociology – Honors	3.0	CSU, UC
SPCH 1A	Public Speaking, <i>or</i>	3.0	CSU, UC
SPCH 1AH	Public Speaking – Honors	3.0	CSU, UC
Total Units		46.0	

**Architectural Technology — Level III
Architecture and Engineering
Design Department
Certificate 60204**

This multi-level certificate program is intended to prepare students to enter the field of architecture and related areas. The student is provided with an option of direct employment into the field or preparation for transfer to the professional school of architecture. The student will be required to develop both design and working drawing portfolios. Current technology and computer (CADD) skills are integrated into the program. An A.S. Degree program is also available.

Requirements for the Certificate

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

Required courses:

Level I as follows:

ARCH 10	Design I – Elements of Design	3.0	CSU
ARCH 11	Architectural Drawing	3.0	CSU, UC
ARCH 12	Architectural Materials and Specifications	3.0	CSU
ARCH 13	Architectural Illustration	3.0	CSU, UC
ARCH 14	Building and Zoning Codes	3.0	
ARCH 15	Architectural Working Drawings – I	3.0	CSU
ARCH 16	Basic CAD and Computer Application	4.0	CSU, UC
ARCH 18	Architectural Computer Aided Design Elements	3.0	

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

Required courses:

Level II as follows:

ARCH 21	Design II – Architectural Design	3.0	CSU
ARCH 23	Architectural Presentations	3.0	CSU
ARCH 26	Architectural CAD Working Drawings	3.0	
EDT 20	Technical Descriptive Geometry	3.0	CSU

Plus select three (3) units from General Education Restricted list.

Plus the following courses:

Level III as follows:

ARCH 27	Design III – Environmental Design	3.0	CSU, UC
ARCH 28	Architectural CAD 3-D Illustration and Animation	3.0	CSU
ARCH 29	Design IV – Advanced Project	3.0	CSU

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

PLUS

Select six (6) units from:

ARTA 5	History of Western Art: Renaissance Through Modern, <i>or</i>	3.0	CSU, UC
ARTA 5H	History of Western Art: Renaissance Through Modern – Honors	3.0	CSU, UC
BIOL 5	Contemporary Health Issues	3.0	CSU, UC
BIOL 6	Humans and the Environment	3.0	CSU, UC
BUSC 1A	Principles of Economics – Macroeconomics, <i>or</i>	3.0	CSU, UC
BUSC 1AH	Principles of Economics – Macroeconomics – Honors	3.0	CSU, UC
ENGL 1A	Freshman Composition, <i>or</i>	3.0	CSU, UC
ENGL 1AH	Freshman Composition – Honors	3.0	CSU, UC
ENGL 1B	English – Introduction to Literary Types, <i>or</i>	3.0	CSU, UC
ENGL 1BH	English – Introduction to Literary Types – Honors	3.0	CSU, UC
ENGL 1C	Critical Thinking and Writing, <i>or</i>	3.0	CSU, UC
ENGL 1CH	Critical Thinking and Writing – Honors	3.0	CSU, UC
FCS 41	Life Management	3.0	CSU
HIST 3	History of World Civilization	3.0	CSU, UC
MATH 51	Elementary Algebra	4.0	
MATH 71	Intermediate Algebra	5.0	
MATH 150	Trigonometry	3.0	CSU

PHIL 5	Introduction to Philosophy, <i>or</i>	3.0	CSU, UC
PHIL 5H	Introduction to Philosophy – Honors	3.0	CSU, UC
PHIL 12	Ethics, <i>or</i>	3.0	CSU, UC
PHIL 12H	Ethics – Honors	3.0	CSU, UC
PHYS 2AG	General Physics	4.0	CSU, UC
PSYC 1A	Introduction to Psychology, <i>or</i>	3.0	CSU, UC
PSYC 1AH	Introduction to Psychology – Honors	3.0	CSU, UC
PSYC 33	Psychology for Effective Living	3.0	CSU
SOC 1	Sociology, <i>or</i>	3.0	CSU, UC
SOC 1H	Sociology – Honors	3.0	CSU, UC
SPCH 1A	Public Speaking, <i>or</i>	3.0	CSU, UC
SPCH 1AH	Public Speaking – Honors	3.0	CSU, UC
Total Units		52.0	

Art: Aesthetics for Technology

**Art Department
Certificate 61013**

The certificate program is designed for the student thinking about joining the professional work force or seeking current job advancement. It provides design skills necessary in art and technology related industries.

A variety of career opportunities are available in Art, Advertising, Graphic Design, Animation, Journalism, and MultiMedia. Working professionals or students who hold current certificates offered by the Office Technology Department, Photographics, Architecture and Design Department, the Family and Consumer Sciences Department, and wish to augment their design skills, would find this certificate beneficial.

Requirements for the Certificate

Required courses:

ARTC 70	Computer Graphics: Introduction	3.0	CSU
ARTC 171	Computer Graphics 2: Layout and Design with QuarkXpress	3.0	CSU
ARTD 15A	Drawing: Beginning	3.0	CSU, UC
ARTD 20	Design: Two Dimensional	3.0	CSU, UC
Total Units		12.0	

Recommended Electives:

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

Athletic Trainer Aide I

**Physical Education Department
Certificate 60802**

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

Requirements for the Certificate

Required courses:

PE 3	First Aid and CPR, <i>or</i>	3.0	CSU, UC
PE 5	Advanced First Aid/CPR/ Emergency Response	3.0	CSU
PE 19	Introduction to Care/ Prevention of Activity/ Sports-Related Injuries	3.0	CSU, UC
PE 34	Fitness for Living	3.0	CSU, UC
PE 92	Work Experience – Athletic Training	2.0	
Total Units		11.0	

**Business: Human Resource
Management — Level I**

**Accounting and Management Department
Certificate 60531**

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

Requirements for the Certificate

Required courses:

BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 61	Business Organization and Management	3.0	CSU
BUSM 62	Human Resource Management	3.0	
Total Units		9.0	

Special Information:

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

PROGRAMS OF STUDY
LEADING TO A CERTIFICATE

Programs of Study Leading to a Certificate

Business: Human Resource Management — Level II

Accounting and Management Department Certificate 60534

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

Requirements for the Certificate

Completion of the Business: Human Resource Management – Level I Certificate (9 Units).

Required courses:

Level I as follows:

BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 61	Business Organization and Management	3.0	CSU
BUSM 62	Human Resource Management	3.0	

Plus the following courses:

Level II as follows:

ANTH 22	General Cultural Anthropology	3.0	CSU, UC
BUSM 60	Human Relations in Business	3.0	CSU
BUSO 25	Business Communications, <i>or</i>	3.0	CSU
BUSO 25A	Business Communications A, <i>and</i>	1.5	CSU
BUSO 25B	Business Communications B	1.5	CSU

Total Units 18.0

Special Information:

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

Business: Human Resource Management — Level III

Accounting and Management Department Certificate 60535

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

Requirements for the Certificate

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

Required courses:

Level I as follows:

BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 61	Business Organization and Management	3.0	CSU
BUSM 62	Human Resource Management	3.0	

Required courses:

Level II as follows:

ANTH 22	General Cultural Anthropology	3.0	CSU, UC
BUSM 60	Human Relations in Business	3.0	CSU
BUSO 25	Business Communications, <i>or</i>	3.0	CSU
BUSO 25A	Business Communications A, <i>and</i>	1.5	CSU
BUSO 25B	Business Communications B	1.5	CSU

Plus the following courses:

Level III as follows:

BUSA 70	Payroll and Tax Accounting	3.0	
CISB 15	Microcomputer Applications	4.0	CSU, UC

Total Units 25.0

Special Information:

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

Business: International — Level I Accounting and Management Department Certificate 60527

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

Requirements for the Certificate

Required courses:

BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 51	Principles of International Business	3.0	
BUSS 36	Principles of Marketing	3.0	CSU

Total Units 9.0

Special Information:

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

Business: International — Level II Accounting and Management Department Certificate 60507

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

Requirements for the Certificate

Required courses:

Completion of the Business: International – Level I certificate (9 Units) as follows:

BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 51	Principles of International Business	3.0	
BUSS 36	Principles of Marketing	3.0	CSU

Plus the following courses:

Level II as follows:

BUSM 61	Business Organization and Management	3.0	CSU
BUSM 66	Small Business Management	3.0	

PLUS

Select one (1) course from:

BUSS 70	International Marketing Concepts	3.0	
CHIN 1	Beginning Chinese	4.0	CSU, UC
FRCH 1	Elementary French	4.0	CSU, UC
GERM 1	Elementary German	4.0	CSU, UC
ITAL 1	Elementary Italian	4.0	CSU, UC
JAPN 1	Elementary Japanese	4.0	CSU, UC
SPAN 1	Elementary Spanish	4.0	CSU, UC

Total Units 18.0 - 19.0

Special Information:

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

Business: International — Level III Accounting and Management Department Certificate 60528

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

Requirements for the Certificate

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

Required courses:

Level I as follows:

BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 51	Principles of International Business	3.0	
BUSS 36	Principles of Marketing	3.0	CSU

Required courses:

Level II as follows:

BUSM 61	Business Organization and Management	3.0	CSU
BUSM 66	Small Business Management	3.0	

PLUS

Select one (1) course from:

BUSS 70	International Marketing Concepts	3.0	
CHIN 1	Beginning Chinese	4.0	CSU, UC
FRCH 1	Elementary French	4.0	CSU, UC
GERM 1	Elementary German	4.0	CSU, UC
ITAL 1	Elementary Italian	4.0	CSU, UC
JAPN 1	Elementary Japanese	4.0	CSU, UC
SPAN 1	Elementary Spanish	4.0	CSU, UC

PLUS

Additional required courses:

Level III as follows:

BUSL 20	International Business Law	3.0	
BUSM 50	World Culture: A Business Perspective, <i>or</i>	3.0	
ANTH 22	General Cultural Anthropology	3.0	CSU, UC
BUSM 52	Principles of Exporting and Importing	3.0	

Total Units 27.0 - 28.0

Recommended Electives:

BUSM 81	Work Experience in Business, <i>or</i>
BUSM 82	Work Experience in Business, <i>or</i>
BUSM 83	Work Experience in Business, <i>or</i>
BUSM 84	Work Experience in Business, <i>or</i>
BUSM 85	Special Issues in Business
BUSS 85	Special Issues in Marketing

Special Information:

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

Business: Management — Level I Accounting and Management Department Certificate 60525

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

Requirements for the Certificate

Required courses:

BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 61	Business Organization and Management	3.0	CSU
BUSS 36	Principles of Marketing	3.0	CSU
Total Units		9.0	

Special Information:

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

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

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

Requirements for the Certificate

Required courses:

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

BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 61	Business Organization and Management	3.0	CSU
BUSS 36	Principles of Marketing	3.0	CSU

Plus the following courses:

Level II as follows:

BUSM 60	Human Relations in Business	3.0	CSU
BUSM 62	Human Resource Management	3.0	
CISB 15	Microcomputer Applications	4.0	CSU, UC

Total Units 19.0

Special Information:

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

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

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

Requirements for the Certificate

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

Required courses:

Level I as follows:

BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 61	Business Organization and Management	3.0	CSU
BUSS 36	Principles of Marketing	3.0	CSU

Required courses:

Level II as follows:

BUSM 60	Human Relations in Business	3.0	CSU
BUSM 62	Human Resource Management	3.0	
CISB 15	Microcomputer Applications	4.0	CSU, UC

Plus the following courses:

Level III as follows:

BUSA 7	Principles of Accounting – Financial	5.0	CSU, UC
BUSM 10	Principles of Continuous Quality Improvement	3.0	
BUSM 51	Principles of International Business	3.0	
Total Units		30.0	

Special Information:

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

Business: Retail Management — Level I Accounting and Management Department Certificate 60500

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

Requirements for the Certificate

Required courses:

BUSO 25	Business Communications	3.0	CSU
CISB 15	Microcomputer Applications	4.0	CSU, UC
FASH 62	Retail Store Management and Merchandising, <i>or</i>	3.0	CSU
BUSS 50	Retail Store Management and Merchandising	3.0	
Total Units		10.0	

Special Information:

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

Business: Retail Management — Level II Accounting and Management Department Certificate 60501

This intermediate certificate builds upon the Level I Certificate to expose students to the various functions of managers in retail positions. Fundamentals of business organization, retail marketing and staffing provides the

student a solid foundation from which to build a career in retail management.

Requirements for the Certificate

Required courses:

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

BUSO 25	Business Communications	3.0	CSU
BUSS 50	Retail Store Management and Merchandising, <i>or</i>	3.0	
FASH 62	Retail Store Management and Merchandising	3.0	CSU
CISB 15	Microcomputer Applications	4.0	CSU, UC

Plus the following courses:

Level II as follows:

BUSA 11	Fundamentals of Accounting	3.0	
BUSM 61	Business Organization and Management	3.0	CSU
BUSM 62	Human Resource Management	3.0	
BUSS 36	Principles of Marketing	3.0	CSU

Total Units 22.0

Special Information:

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

Business: Retail Management — Level III Accounting and Management Department Certificate 60521

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

Requirements for the Certificate

Required courses:

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

BUSO 25	Business Communications	3.0	CSU
BUSS 50	Retail Store Management and Merchandising, <i>or</i>	3.0	
FASH 62	Retail Store Management and Merchandising	3.0	CSU
CISB 15	Microcomputer Applications	4.0	CSU, UC

Programs of Study Leading to a Certificate

Required courses:

Completion of the Retail Management – Level II certificate (21.5 Units) as follows:

BUSA 11	Fundamentals of Accounting	3.0	
BUSM 61	Business Organization and Management	3.0	CSU
BUSM 62	Human Resource Management	3.0	
BUSS 36	Principles of Marketing	3.0	CSU

Plus the following courses:

Level III as follows:

BUSA 7	Principles of Accounting – Financial	5.0	CSU, UC
BUSM 60	Human Relations in Business	3.0	CSU
BUSO 26	Oral Communications for Business	3.0	

Total Units 33.0

Special Information:

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

Business: Small Business Management — Level I

Accounting and Management Department Certificate 60529

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

Requirements for the Certificate

Required courses:

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

Total Units 9.0

Special Information:

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

Business: Small Business Management — Level II

Accounting and Management Department Certificate 60508

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

Requirements for the Certificate

Required courses:

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

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

Plus the following courses:

Level II as follows:

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

Total Units 18.0

Special Information:

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

Business: Small Business Management — Level III

Accounting and Management Department Certificate 60530

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

Requirements for the Certificate

Required courses:

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

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

Required courses:

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

Plus the following courses:

Level III as follows:

BUSA7	Principles of Accounting – Financial	5.0	CSU, UC
BUSM10	Principles of Continuous Quality Improvement	3.0	
CISB 15	Microcomputer Applications	4.0	CSU, UC

Total Units 30.0

Special Information:

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

Business: Workplace Competencies

Business Administration Department Certificate 60532

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

Requirements for the Certificate

Required courses:

BUSA 68	Business Mathematics	3.0	
BUSO 5	Business English	3.0	
BUSO 26	Oral Communications for Business	3.0	
FASH 15	Fashion Strategies	3.0	CSU
FCS 41	Life Management	3.0	CSU

Total Units 15.0

Children's Program Certificate: Administration

Family and Consumer Sciences Department Certificate 61313

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

Requirements for the Certificate

Required courses:

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

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

PLUS

Select three (3) courses from:

CHLD 61	Language Arts & Art Media for Young Children	3.0	
CHLD 62	Music and Motor Development for Young Children	3.0	CSU
CHLD 63	Creative Sciencing and Math for Young Children	3.0	
CHLD73	Infant/Toddler Care and Development	3.0	CSU

PLUS

Additional required courses:

CHLD 50	Multicultural Education: Anti-Bias Perspective	3.0	
CHLD 71A	Administration of Child Development Programs	3.0	CSU

CHLD 71B	Management/Marketing/Personnel for ECD Programs	3.0
CHLD 75	Supervising Adults in Early Childhood Settings	2.0
PLUS		
Select four (4) units from:		
Note: Your four (4) unit selection should not include any course you have previously taken.		
BUSM 66	Small Business Management	3.0
CHLD 72	Teacher, Parent, and Child Relationships	3.0
CHLD 73	Infant/Toddler Care and Development	3.0 CSU
CHLD 82	Advocacy in Early Childhood Development	1.0
CHLD 83	Current Issues in Child Development	1.0
Total Units		43.0

Children’s Program Certificate: General — Level I
Family and Consumer Sciences Department Certificate 61326

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

Requirements for the Certificate
Required courses:

CHLD 1	Child, Family and Community	3.0	CSU, UC
CHLD 5	Principles/Practices in Child Development Programs	3.0	CSU
CHLD 6	Survey of Child Development Curriculum	3.0	CSU
CHLD 10	Child Growth and Development, <i>or</i>	3.0	CSU, UC
CHLD 10H	Child Growth and Development – Honors	3.0	CSU, UC
Total Units		12.0	

Children’s Program Certificate: General — Level II
Family and Consumer Sciences Department Certificate 61328

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

Requirements for the Certificate
Required courses:

Completion of the Children’s Program Certificate: General – Level I, as follows:

CHLD 1	Child, Family and Community	3.0	CSU, UC
CHLD 5	Principles/Practices in Child Development Programs	3.0	CSU
CHLD 6	Survey of Child Development Curriculum	3.0	CSU
CHLD 10	Child Growth and Development, <i>or</i>	3.0	CSU, UC
CHLD 10H	Child Growth and Development – Honors	3.0	CSU, UC

Plus the following courses:
 Level II as follows:

CHLD 64	Health, Safety and Nutrition of Young Children	3.0	
CHLD 68	Children with Special Needs	3.0	CSU
CHLD 84	Guidance & Discipline in Early Childhood Settings	1.0	
Total Units		19.0	

Children’s Program Certificate: General — Level III
Family and Consumer Sciences Department Certificate 61327

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

Requirements for the Certificate
Required courses:

Completion of the Children’s Program Certificate: General – Level I, as follows:

CHLD 1	Child, Family and Community	3.0	CSU, UC
CHLD 5	Principles/Practices in Child Development Programs	3.0	CSU
CHLD 6	Survey of Child Development Curriculum	3.0	CSU

CHLD 10	Child Growth and Development, <i>or</i>	3.0	CSU, UC
CHLD 10H	Child Growth and Development – Honors	3.0	CSU, UC
Plus the following courses:			
Level II as follows:			
CHLD 64	Health, Safety and Nutrition of Young Children	3.0	
CHLD 68	Children with Special Needs	3.0	CSU
CHLD 84	Guidance & Discipline in Early Childhood Settings	1.0	
PLUS			
Select three (3) courses from:			
Level III as follows:			
CHLD 50	Multicultural Education: Anti-Bias Perspective	3.0	
CHLD 61	Language Arts & Art Media for Young Children	3.0	
CHLD 62	Music and Motor Development for Young Children	3.0	CSU
CHLD 63	Creative Sciencing and Math for Young Children	3.0	
CHLD 73	Infant/Toddler Care and Development	3.0	CSU
Total Units		28.0	

Children’s Program Certificate: Small Business Management
Family and Consumer Sciences Department Certificate 61311

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

Requirements for the Certificate
Required courses:

BUSM 60	Human Relations in Business	3.0	CSU
BUSM 66	Small Business Management	3.0	
BUSO 5	Business English	3.0	
CHLD 1	Child, Family and Community	3.0	CSU, UC
CHLD 5	Principles/Practices in Child Development Programs	3.0	CSU
CHLD 6	Survey of Child Development Curriculum	3.0	CSU
CHLD 10	Child Growth and Development, <i>or</i>	3.0	CSU, UC
CHLD 10H	Child Growth and Development – Honors	3.0	CSU, UC

CHLD 64	Health, Safety and Nutrition of Young Children	3.0	
CHLD 71A	Administration of Child Development Programs	3.0	CSU
CHLD 71B	Management/Marketing/Personnel for ECD Programs	3.0	
FCS 41	Life Management	3.0	CSU
Total Units		33.0	
Recommended Electives:			
BUSA 70	Payroll and Tax Accounting, <i>or</i>		
BUSA 71	Financial Planning		
BUSL 18	Business Law, <i>or</i>		
BUSL 18H	Business Law – Honors		
BUSM 20	Principles of Business		
BUSM 61	Business Organization and Management		
BUSO 25	Business Communications		
BUSS 33	Advertising and Promotion		
BUSS 36	Principles of Marketing		
CISB 11	Computer Information Systems		

Children’s Program Certificate: Teaching
Family and Consumer Sciences Department Certificate 61312

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

Requirements for the Certificate
Required courses:

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

PROGRAMS OF STUDY LEADING TO A CERTIFICATE

Programs of Study Leading to a Certificate

Plus the following courses:

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

PLUS

Select two (2) courses from:

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

Total Units 39.0

Coaching

Physical Education Department Certificate 60804

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

Requirements for the Certificate

Required courses:

PE 13	Sports Officiating	3.0	CSU, UC
PE 34	Fitness for Living	3.0	CSU, UC
PE 44	Theory of Coaching	3.0	CSU
PE 81	Work Experience for Coaching	2.0	

Total Units 11.0

Exit Requirement:

First Aid and CPR Certification

Computer and Networking Technology — Level I

Electronics and Computer Technology Department Certificate 60725

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

Requirements for the Certificate

Required courses:

CNET 50	PC Servicing	4.0	
CNET 52	PC Operating Systems	4.0	
CNET 54	PC Troubleshooting	4.0	
CNET 60	A+ Certification Preparation	3.0	
ELEC 11	Technical Applications in Microcomputers, <i>or</i>	3.0	CSU
CISB 15	Microcomputer Applications	4.0	CSU, UC
ELEC 50A	Electronics Theory	2.0	CSU
ELEC 50AL	Electronics Laboratory	1.0	CSU
ELEC 50B	Electronics Theory	2.0	CSU
ELEC 50BL	Electronics Laboratory	1.0	CSU
ELEC 56	Digital Electronics	3.0	CSU
ELEC 56L	Digital Electronics Laboratory	1.0	CSU

Total Units 28.0 - 29.0

Computer and Networking Technology — Level II

Electronics and Computer Technology Department Certificate 60726

The Computer and Networking Technology Major and Certificates are intended to prepare students to enter the

computer and networking fields as service technicians. The program provides foundations in basic electronics, computer servicing, operating systems, network/server servicing, and Network security. Skills are developed so that students can provide customer service in the installation, software configuration, maintenance, operation, troubleshooting and repair of computers and their associated networking software/hardware. In addition to acquiring specialized skills in computer and networks servicing, the student will be prepared to take the A+, Network+, Server+, and Security+ certification tests offered at testing centers throughout the country. These certifications are CompTIA sponsored and are recognized worldwide as industry benchmarks for computer and networking technicians. Further, the student will have the requisite skills upon which to build in order to seek additional certification.

Requirements for the Certificate

Required courses:

Completion of the Computer and Networking Technology – Level I Certificate, as follows:

CNET 50	PC Servicing	4.0	
CNET 52	PC Operating Systems	4.0	
CNET 54	PC Troubleshooting	4.0	
CNET 60	A+ Certification Preparation	3.0	
ELEC 11	Technical Applications in Microcomputers, <i>or</i>	3.0	CSU
CISB 15	Microcomputer Applications	4.0	CSU, UC
ELEC 50A	Electronics Theory	2.0	CSU
ELEC 50AL	Electronics Laboratory	1.0	CSU
ELEC 50B	Electronics Theory	2.0	CSU
ELEC 50BL	Electronics Laboratory	1.0	CSU
ELEC 56	Digital Electronics	3.0	CSU
ELEC 56L	Digital Electronics Laboratory	1.0	CSU

Plus the following courses:

Level II as follows:

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

Total Units 42.0 - 43.0

Recommended Electives:

CISN 51	Cisco CCNA Networking Fundamentals and Routing
CISS 25	Network Security and Firewalls
ELEC 74	Microprocessor Systems
ELEC 74L	Microprocessor Systems Laboratory
ELMA 65A	Mathematics of Electronics
ELMA 65B	Mathematics of Electronics

Special Information:

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

Computer Graphic Design/Photography

Photographics Department Certificate 61005

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

Requirements for the Certificate

Required courses:

GRAP 1	Computer Graphics Lab	1.0	
GRAP 10	Photo Editing with Photoshop	3.0	
GRAP 12	Advanced Photo Editing with Photoshop	3.0	
GRAP 14	Digital Color Management	3.0	
GRAP 16	Digital Image Design with Illustrator & Freehand	3.0	
GRAP 20	Applying Photos and Images in Multimedia	3.0	
GRAP 28	Digital Portfolio	2.0	
PHOT 10	Beginning Photography	3.0	CSU, UC
PHOT 17	Photocommunication	3.0	

Total Units 24.0

Recommended Electives:

AHIS 1	Understanding the Visual Arts, <i>or</i>
ARTB 1	Understanding the Visual Arts
COMP 10	Operating the Macintosh Computer
GRAP 18	Advanced Image Design – 3D Modeling Techniques

GRAP 24	Work Experience in Computer Graphics
PHOT 1	Laboratory Studies: Black and White Photography
PHOT 2	Laboratory Studies: Color Photography
PHOT 4	Digital Cameras and Composition

**Computer Systems Technology
Electronics and Computer Technology
Department
Certificate 60924**

This curriculum is one of three advanced systems options available for those students who do not complete all advanced systems courses at once, or who complete them one at a time. The Computer Systems Technology curriculum encompasses advanced coursework in computer systems circuitry. This includes microprocessor programming codes and microprocessor interfacing circuits.

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

**Requirements for the Certificate
Required courses:**

ELEC 11	Technical Applications in Microcomputers	3.0	CSU
ELEC 12	Computer Simulation and Troubleshooting	2.0	
ELEC 50A	Electronics Theory	2.0	CSU
ELEC 50AL	Electronics Laboratory	1.0	CSU
ELEC 50B	Electronics Theory	2.0	CSU
ELEC 50BL	Electronics Laboratory	1.0	CSU
ELEC 51	Electronic Devices Theory	3.0	CSU
ELEC 51L	Electronic Devices Laboratory	1.0	CSU
ELEC 56	Digital Electronics	3.0	CSU
ELEC 56L	Digital Electronics Laboratory	1.0	CSU
ELEC 61	Electronic Assembly and Fabrication	2.0	CSU
ELEC 74	Microprocessor Systems	3.0	CSU
ELEC 74L	Microprocessor Systems Laboratory	1.0	CSU
ELMA 65A	Mathematics of Electronics	2.0	CSU
ELMA 65B	Mathematics of Electronics	2.0	CSU
Total Units		29.0	

**Construction Inspection
Architecture and Engineering Design
Department
Certificate 60920**

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

**Requirements for the Certificate
Required courses:**

ARCH 12	Architectural Materials and Specifications	3.0	CSU
ARCH 14	Building and Zoning Codes	3.0	
INSP 17	Legal Aspects of Construction	3.0	CSU
INSP 70	Elements of Construction	3.0	CSU
INSP 71	Construction Estimating	3.0	CSU
INSP 87	Fundamentals of Construction Inspection	3.0	
MATH 51	Elementary Algebra	4.0	
Total Units		22.0	

Recommended Electives:

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

**Consumer Services
Family and Consumer Sciences Department
Certificate 61321**

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

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

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

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

**Requirements for the Certificate
Required courses:**

BUSL 18	Business Law, <i>or</i>	3.0	CSU, UC
BUSL 18H	Business Law – Honors	3.0	CSU, UC
BUSM 60	Human Relations in Business	3.0	CSU
FCS 41	Life Management	3.0	CSU
FCS 80	Financial Planning, <i>or</i>	3.0	CSU
BUSA 71	Financial Planning	3.0	CSU
FCS 91	Work Experience in Family and Consumer Sciences, <i>or</i>	1.0	
BUSL 36	Paralegal Internship	1.0	
PLUS			
Select two (2) courses from:			
BUSO 5	Business English	3.0	
BUSO 25	Business Communications	3.0	CSU
COMP 12	Office Computer Applications, <i>or</i>	4.0	CSU, UC
CISB 15	Microcomputer Applications	4.0	CSU, UC
Total Units		19.0 - 20.0	

**Correctional Sciences
Public Services Department
Certificate 62103**

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

**Requirements for the Certificate
Required courses:**

ADJU 68	Administration of Justice Report Writing	3.0	
CORS 10	Introduction to Correctional Sciences	3.0	CSU
CORS 15	Control and Supervision of the Offender	3.0	
CORS 20	Correctional Law	3.0	
CORS 25	Probation and Parole	3.0	
CORS 30	Ethnic Relations in Corrections	3.0	

PLUS

Select four (4) courses from:

ADJU 1	The Administration of Justice System	3.0	CSU, UC
ADJU 2	Principles and Procedures of the Justice System	3.0	CSU
ADJU 20	Principles of Investigation	3.0	CSU
ADJU 38	Narcotics Investigation	3.0	
ADJU 59	Street Gangs and Law Enforcement	3.0	
CORS 35	Interviewing and Counseling in Corrections	3.0	
CORS 40	Crime and Delinquency	3.0	
CORS 45	The Violent Offender	3.0	
Total Units		30.0	

Recommended Electives:

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

**Culinary Arts — Level I
Family and Consumer Sciences Department
Certificate 61334**

The Culinary Arts – Level I Certificate program will prepare students for food production job opportunities in the food service industry. The program emphasizes basic food preparation, commercial food production, and food safety and sanitation. Six units of elective courses allow the student to tailor the program to meet specific needs.

**Requirements for the Certificate
Required courses:**

HRM 52	Food Safety and Sanitation	1.5	CSU
HRM 54	Basic Cooking Techniques	3.0	CSU
HRM 91	Work Experience in Restaurant/Hospitality	1.0	CSU
NF 20	Principles of Foods with Lab	3.0	CSU

PLUS

Select six (6) units from:

HRM 61	Menu Planning	3.0	CSU
HRM 62	Catering	3.0	CSU
NF 61	Creative Foods	3.0	
NF 62	Meal Management	3.0	CSU
Total Units		14.5	

PROGRAMS OF STUDY
LEADING TO A CERTIFICATE

Programs of Study Leading to a Certificate

CIS Professional Certificate in C# Programming

Computer Information Systems Department Certificate 60722

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

Requirements for the Certificate

Required courses:

CISD 21	SQL Server	4.0
CISP 41	Programming in C#	4.0
CISP 44	Advanced Programming in C#	4.0
Total Units		12.0

CIS Professional Certificate In C++ Programming

Computer Information Systems Department Certificate 60714

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

Requirements for the Certificate

Required courses:

CISP 31	Programming in C++	4.0	CSU, UC
CISP 34	Advanced C++ Programming	4.0	CSU, UC
Total Units		8.0	

CIS Professional Certification in Database Mangement — Microcomputers

Computer Information Systems Department Certificate 60715

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

Requirements for the Certificate

Required courses:

CISD 11	Database Management – Microcomputers	4.0	CSU
CISD 14	Advanced Database Management – Microcomputers	4.0	
CISD 40	Database Design	2.0	
Total Units		10.0	

CIS Professional Certificate In Java Programming

Computer Information Systems Department Certificate 60700

This curriculum is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program will prepare the student to develop applications using Java and includes techniques in Object Oriented Programming, web-based applets, servlets, navigating databases, and JavaBeans.

Requirements for the Certificate

Required courses:

CISD 11	Database Management – Microcomputers, <i>or</i>	4.0	CSU
CISD 31	Database Management	4.0	
CISP 21	Programming in Java	4.0	CSU, UC
CISP 24	Advanced Java Programming	4.0	
Total Units		12.0	

CIS Professional Certificate in LINUX

Computer Information Systems Department Certificate 60706

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

Requirements for the Certificate

Required courses:

CISN 31	Linux Operating System	4.0	CSU
CISN 34	LINUX Networking and Security	4.0	CSU
CISW 31	Web Servers	4.0	
Total Units		12.0	

CIS Professional Certificate In Networking

Computer Information Systems Department Certificate 60716

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

Requirements for the Certificate

Required courses:

CISN 11	Telecommunications/ Networking Fundamentals	4.0	CSU
CISN 24	Microsoft NT Network System Administration	4.0	CSU
CISN 41	Novell Netware Systems Administration, <i>or</i>	4.0	CSU
CISN 34	LINUX Networking and Security	4.0	CSU
CISN 51	Cisco CCNA Networking Fundamentals and Routing	4.0	CSU
Total Units		16.0	

CIS Professional Certificate in Network Security

Computer Information Systems Department Certificate 60721

This curriculum is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program is aimed to help students develop skills to design, implement, and maintain secured networks. The courses examine Firewall and VPN in various environments and platforms, use network protocol analyzing technology as a security tool to protect the networks from attacks, and illustrate network vulnerabilities from a hacker's perspective. This program will prepare students to explain fundamental concepts of network security, identify network vulnerabilities and attacks, and use various protocol analyzers to detect network attack and troubleshoot network problems. Individual courses may assist students in preparing for related industry certification exams.

Requirements for the Certificate

Required courses:

CISS 21	Network Vulnerabilities and Countermeasures	4.0	CSU
CISS 23	Network Analysis and NIDS	4.0	CSU
CISS 25	Network Security and Firewalls	4.0	CSU
Total Units		12.0	

CIS Professional Certificate in Object-Oriented Design & Programming

Computer Information Systems Department Certificate 60723

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

Requirements for the Certificate

Required courses:

CISP 11	Basic Programming, <i>or</i>	4.0	CSU, UC
CISP 31	Programming in C++, <i>or</i>	4.0	CSU, UC
CISP 21	Programming in Java, <i>or</i>	4.0	CSU, UC
CISP 41	Programming in C#	4.0	
CISP 14	Advanced Basic Programming, <i>or</i>	4.0	CSU, UC
CISP 34	Advanced C++ Programming, <i>or</i>	4.0	CSU, UC
CISP 24	Advanced Java Programming, <i>or</i>	4.0	
CISP 44	Advanced Programming in C#	4.0	
CISP 51	Principles of Object-Oriented Design	2.0	
Total Units		10.0	

CIS Professional Certificate In Oracle

Computer Information Systems Department Certificate 60717

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

Requirements for the Certificate

Required courses:

CISD 31	Database Management	4.0	
CISD 32	Oracle Forms and Reports	4.0	
CISD 33	Oracle Database Architecture and Administration, <i>or</i>	4.0	
CISD 50	Web Based Applications with PL/SQL, <i>or</i>	4.0	CSU
CISD 34	High Performance Oracle SQL Tuning	2.0	
CISD 40	Database Design	2.0	
Total Units		12.0 - 14.0	

CIS Professional Certificate in SOA and Web Services

Computer Information Systems Department Certificate 60724

This certificate is designed for returning CIS professionals with several years of experience or current students who have completed several CIS courses. This program will help the student understand the concepts and theories underlying service oriented architecture (SOA), XML technologies (DTD, XSD, XLST, XQuery and XPath), and Web services technologies (UDDI, WSDL and SOAP).

Requirements for the Certificate

Required courses:

CISW 41	XML Secure Programming	3.0	
CISW 49	Service Oriented Architecture Concepts & Practice	3.0	
Total Units		6.0	

CIS Professional Certificate in SQL

Computer Information Systems Department Certificate 60730

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

Requirements for the Certificate

Required courses:

CISD 21	SQL Server	4.0	
CISD 31	Database Management	4.0	
CISD 40	Database Design	2.0	
Total Units		10.0	

CIS Professional Certificate In Telecommunications

Computer Information Systems Department Certificate 60718

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

Requirements for the Certificate

Required courses:

CISN 11	Telecommunications/ Networking Fundamentals	4.0	CSU
CISN 14	Advanced Telecommunications	4.0	
Total Units		8.0	

CIS Professional Certificate in Visual Basic Programming

Computer Information Systems Department Certificate 60719

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

Requirements for the Certificate

Required courses:

CISP 11	Basic Programming	4.0	CSU, UC
CISP 14	Advanced Basic Programming	4.0	CSU, UC
Total Units		8.0	

CIS Professional Certificate in Web Programming

Computer Information Systems Department Certificate 60713

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

Requirements for the Certificate

Required courses:

CISW 11	The Internet	4.0	CSU
CISW 24	Advanced Web Programming	4.0	
CISW 31	Web Servers	4.0	
Total Units		12.0	

CIS Professional Certificate in Windows Operating System Administration

Computer Information Systems Department Certificate 60720

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

Requirements for the Certificate

Required courses:

CISN 21	Windows Operating System	4.0	CSU
CISN 24	Microsoft NT Network System Administration	4.0	CSU
Total Units		8.0	

Data Entry

Office Technology Department Certificate 60701

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

Requirements for the Certificate

Required courses:

COMP 2	Intermediate Computer Keyboarding	4.0	
COMP 12	Office Computer Applications, <i>or</i>	4.0	CSU, UC
CISB 15	Microcomputer Applications	4.0	CSU, UC
COMP 18	Data Entry	3.0	
Total Units		11.0	

Database Management Systems

Computer Information Systems Department Certificate 60703

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

Requirements for the Certificate

Required courses:

CISB 11	Computer Information Systems	3.5	CSU, UC
CISD 11	Database Management – Microcomputers	4.0	CSU
CISD 14	Advanced Database Management – Microcomputers	4.0	
CISD 31	Database Management	4.0	
CISD 32	Oracle Forms and Reports	4.0	
CISD 40	Database Design	2.0	
CISD 50	Web Based Applications with PL/SQL	4.0	CSU
CISM 11	Systems Analysis and Design	3.5	CSU, UC
CISM 14	Computer Information Systems Seminar	4.0	
CISM 21	Client/Server Architecture	4.0	
Total Units		37.0	

Desktop Publishing

Office Technology Department Certificate 60711

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

Requirements for the Certificate

Required courses:

COMP 1A	Computer Keyboarding, <i>or</i>	2.0	CSU
COMP 1	Computer Keyboarding	4.0	CSU
COMP 11	Internet Research for Business	2.0	CSU
COMP 60	Desktop Publishing with InDesign or Pagemaker, <i>or</i>	4.0	CSU
COMP 62	Desktop Publishing with QuarkXpress	4.0	
COMP 63	Adobe Illustrator for Desktop Publishers, <i>or</i>	4.0	
GRAP 16	Digital Image Design with Illustrator & Freehand	3.0	
COMP 64	Desktop Publishing Seminar	2.5	

Programs of Study Leading to a Certificate

COMP 65	Modifying Images for Desktop Publishing, <i>or</i>	4.0
GRAP 10	Photo Editing with Photoshop	3.0
Total Units		16.5 - 20.5

Educational Paraprofessional — Level I

Psychology and Education Department Certificate 62107

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

Requirements for the Certificate

Required courses:

CHLD 1	Child, Family and Community	3.0	CSU, UC
EDUC 10	Introduction to Education	3.0	CSU, UC
ENGL 68	English – Writing	3.0	
MATH 51	Elementary Algebra	4.0	
Total Units		13.0	

Educational Paraprofessional — Level II

Psychology and Education Department Certificate 62108

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

Requirements for the Certificate

Required courses:

Completion of the Educational Paraprofessional – Level I Certificate (13 units) as follows:

CHLD 1	Child, Family and Community	3.0	CSU, UC
EDUC 10	Introduction to Education	3.0	CSU, UC
ENGL 68	English – Writing	3.0	
MATH 51	Elementary Algebra	4.0	

Plus the following courses:

Level II as follows:

CHLD 68	Children with Special Needs	3.0	CSU
EDUC 16	Aspects and Issues in Teaching Service Learning	3.0	CSU, UC
ENGL 1A	Freshman Composition	3.0	CSU, UC
MATH 71	Intermediate Algebra	5.0	
PSYC 14	Developmental Psychology, <i>or</i>	3.0	CSU, UC
CHLD 10	Child Growth and Development	3.0	CSU, UC
Total Units		30.0	

Recommended Electives:

CHLD 51	Early Literacy in Child Development	
CHLD 64	Health, Safety and Nutrition of Young Children	
LIT 40	Children's Literature	
PE 3	First Aid and CPR	

Electronic Cabling and Wiring Technology — Level I

Electronics and Computer Technology Department Certificate 60910

This is a fast-track certificate program within the fields of Information and Electronic Technology. These fields are growing at rapid rates. The program provides the necessary 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*). The typical job titles for these areas are: data or cable technician, low-voltage wiring technician, home theatre installer, and security system installer.

The certificate encompasses a total of 22-23 units comprising two levels of certification. The level I certification (11-12 units) develops skills in electrical fundamentals, fabrication techniques, and basic computer skills in word processing, spreadsheets, database and the Internet. The level II certification (11 units) adds customer relations and advanced skills at the systems level in voice video, and data for cable and wire systems (*copper, coax, fiber, and structured cables*); and the setup, maintenance, and troubleshooting of hometheatre systems, home automation, and home security systems.

Requirements for the Certificate

Required courses:

ECWT 50	Electrical Fundamentals for Cable Installations	4.0
ECWT 52	Fabrication Techniques for Cable Installations	4.0

ELEC 11	Technical Applications in Microcomputers, <i>or</i>	3.0	CSU
CISB 15	Microcomputer Applications	4.0	CSU, UC
Total Units		11.0 - 12.0	

Electronic Cabling and Wiring Technology — Level II

Electronics and Computer Technology Department Certificate 60928

This is a fast-track certificate program within the fields of Information and Electronic Technology. These fields are growing at rapid rates. The program provides the necessary 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*). The typical job titles for these areas are: data or cable technician, low-voltage wiring technician, home theater installer, and security system installer.

The certificate encompasses a total of 20-21 units comprising two levels of certification. The level I certification (11-12 units), develops skills in electrical fundamentals, fabrication techniques, and basic computer skills in word processing, spreadsheets, database and the Internet. The level II certification (9 units) adds customer relations and advanced skills at the systems level in voice, video, and data for cable and wire systems (*copper, coax, fiber, and structured cables*); and the setup, maintenance, and troubleshooting of home theater systems, home automation, and home security systems.

Requirements for the Certificate

Required courses:

ECWT 50	Electrical Fundamentals for Cable Installations	4.0	
ECWT 52	Fabrication Techniques for Cable Installations	4.0	
ELEC 11	Technical Applications in Microcomputers, <i>or</i>	3.0	CSU
CISB 15	Microcomputer Applications	4.0	CSU, UC

Plus the following courses:

ECWT 54	Cabling and Wiring Standards	4.0
ECWT 56	Home Theater and Home Automation Systems	4.0
ELEC 60	Customer Relations for the Technician	1.0

Total Units 20.0 - 21.0

Recommended Electives:

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

Electronics and Computer-Engineering Technology

Electronics and Computer Technology Department Certificate 60906

Requirements for the Certificate

Required courses:

ELEC 11	Technical Applications in Microcomputers	3.0	CSU
ELEC 12	Computer Simulation and Troubleshooting	2.0	
ELEC 50A	Electronics Theory	2.0	CSU
ELEC 50AL	Electronics Laboratory	1.0	CSU
ELEC 50B	Electronics Theory	2.0	CSU
ELEC 50BL	Electronics Laboratory	1.0	CSU
ELEC 51	Electronic Devices Theory	3.0	CSU
ELEC 51L	Electronic Devices Laboratory	1.0	CSU
ELEC 53	Communications Circuits Theory	3.0	
ELEC 53L	Communications Circuits Laboratory	1.0	
ELEC 54A	Industrial Circuits Theory	3.0	CSU
ELEC 54AL	Industrial Circuits Laboratory	1.0	CSU
ELEC 54B	Industrial Electronic Systems	2.0	CSU
ELEC 54BL	Industrial Electronic Systems Laboratory	1.0	CSU
ELEC 55	Microwave Communications	3.0	
ELEC 55L	Microwave Communications Laboratory	1.0	
ELEC 56	Digital Electronics	3.0	CSU
ELEC 56L	Digital Electronics Laboratory	1.0	CSU
ELEC 61	Electronic Assembly and Fabrication	2.0	CSU
ELEC 74	Microprocessor Systems	3.0	CSU
ELEC 74L	Microprocessor Systems Laboratory	1.0	CSU
ELMA 65A	Mathematics of Electronics	2.0	CSU
ELMA 65B	Mathematics of Electronics	2.0	CSU

Total Units 44.0

Recommended Electives:

CISN 41	Novell/SUSE Linux Enterprise Server Administration
CISP 11	Basic Programming
CISP 31	Programming in C++
COMP 1A	Computer Keyboarding
EDT 11	Technical Engineering Drawing I
ELEC 76	Radio Telephone Communications
PHYS 2AG	General Physics

**Electronics Communications
Electronics and Computer Technology
Department
Certificate 60904**

This curriculum is one of three advanced systems options available for those students who do not complete all advanced systems courses at once, or who complete them one at a time. The Electronics Communications curriculum encompasses advanced coursework in electronics communications. This includes both land-based and wireless forms of communications. The circuitry includes both analog and digital forms of communications (AM/FM, SSB, PAM, PPM, PWM, PCM, etc.). Analog and digital multiplexing is also covered. The curriculum culminates with microwave communications coursework that includes radar, PCS, GPS, and satellite operations.

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

**Requirements for the Certificate
Required courses:**

ELEC 11	Technical Applications in Microcomputers	3.0	CSU
ELEC 12	Computer Simulation and Troubleshooting	2.0	
ELEC 50A	Electronics Theory	2.0	CSU
ELEC 50AL	Electronics Laboratory	1.0	CSU
ELEC 50B	Electronics Theory	2.0	CSU
ELEC 50BL	Electronics Laboratory	1.0	CSU
ELEC 51	Electronic Devices Theory	3.0	CSU
ELEC 51L	Electronic Devices Laboratory	1.0	CSU
ELEC 53	Communications Circuits Theory	3.0	

ELEC 53L	Communications Circuits Laboratory	1.0	
ELEC 55	Microwave Communications	3.0	
ELEC 55L	Microwave Communications Laboratory	1.0	
ELEC 56	Digital Electronics	3.0	CSU
ELEC 56L	Digital Electronics Laboratory	1.0	CSU
ELEC 61	Electronic Assembly and Fabrication	2.0	CSU
ELMA 65A	Mathematics of Electronics	2.0	CSU
ELMA 65B	Mathematics of Electronics	2.0	CSU
Total Units		33.0	

**Electronics Technology
Electronics and Computer Technology
Department
Certificate 60905**

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

**Requirements for the Certificate
Required courses:**

ELEC 11	Technical Applications in Microcomputers	3.0	CSU
ELEC 50A	Electronics Theory	2.0	CSU
ELEC 50AL	Electronics Laboratory	1.0	CSU
ELEC 50B	Electronics Theory	2.0	CSU
ELEC 50BL	Electronics Laboratory	1.0	CSU
ELEC 51	Electronic Devices Theory	3.0	CSU
ELEC 51L	Electronic Devices Laboratory	1.0	CSU
ELEC 56	Digital Electronics	3.0	CSU
ELEC 56L	Digital Electronics Laboratory	1.0	CSU
ELEC 61	Electronic Assembly and Fabrication	2.0	CSU
ELMA 65A	Mathematics of Electronics	2.0	CSU
ELMA 65B	Mathematics of Electronics	2.0	CSU
Total Units		23.0	

**Emergency Medical Technician —
Paramedic (EMT-P)
Medical Services Department
Certificate 61211**

This Paramedic Program is accredited by CAAHEP (Committee on Accreditation of Allied Health Education Programs) and approved by the Los Angeles County

Department of Health Services as meeting and exceeding the minimum standards as specified in Title 22 of the California Code of Regulations and the federal Department of Transportation national standard curriculum. It is designed to train paramedics to work on ambulances and in the fire service.

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

Upon completion of the required courses in the Paramedic Program, the student is granted a Certificate of Completion as an Emergency Medical Technician-Paramedic (EMT-P) by the College. Students are then eligible for licensure by taking and passing both the National Registry Exam and County Paramedic accreditation exam.

**Requirements for the Certificate
Required courses:**

EMS 1	Fundamentals for Paramedics	2.0
EMS 10	Anatomy and Physiology for Paramedics	2.0
EMS 20	Emergency Cardiac Care for Paramedics	1.0
EMS 30	Pharmacology for Paramedics	2.0
EMS 40	Cardiology for Paramedics	5.0
EMS 50	Paramedic Skills Competency	4.5
EMS 60	EMS Theory for Paramedics	8.5
EMS 70	Paramedic Clinical Internship	3.5
EMS 80	Paramedic Field Externship	8.5
Total Units		37.0

Recommended Electives:

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

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

Special Information:

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

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

**Application Requirements and
Selection Procedures:**

Application Requirements:

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

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

Programs of Study Leading to a Certificate

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
Psychiatric Technician Program
1100 North Grand Avenue
Walnut, CA 91789-1399

- 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.

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

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

**Emergency Medical Technician I
Medical Services Department
Certificate 61212**

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

Requirements for the Certificate

Required courses:

EMT 90 Emergency Medical Technician I 9.0

Total Units 9.0

Special Information:

To remain in the program, students must maintain a grade of "C" or better in the course.

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

Application Requirements and Selection Procedures:

Application Requirements:

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

Selection Procedure:

The course is open to all students who meet the application requirements.

**Engineering Design Technology —
Level I**

**Architecture and Engineering Design
Department
Certificate 60900**

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

Requirements for the Certificate

Required courses:

EDT 11 Technical Engineering Drawing I 3.0 CSU

EDT 12 Technical Engineering Drawing II 3.0 CSU

EDT 14 Mechanical Design – Geometric Dimensioning and Tolerancing 3.0 CSU

EDT 16 Basic CAD and Computer Applications 4.0 CSU

EDT 18 Engineering CAD Applications 4.0 CSU

PLUS

Select one (1) course from:

ELEC 50A Electronics Theory, *and* 2.0 CSU

ELEC 50AL Electronics Laboratory 1.0 CSU

MFG 11 Manufacturing Processes I 2.0 CSU

Total Units 19.0 - 20.0

Special Information:

Students interested in pursuing transfer and a Bachelor's Degree in Engineering or Engineering Technology are advised to verify with each transfer institution specific requirements for transfer and appropriate courses.

See the Mt. SAC catalog under either Engineering or Surveying for a list of transferable engineering courses.

**Engineering Design Technology —
Level II**

**Architecture and Engineering Design
Department
Certificate 60915**

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

Requirements for the Certificate

Required courses:

Level I as follows:

EDT 11 Technical Engineering Drawing I 3.0 CSU

EDT 12 Technical Engineering Drawing II 3.0 CSU

EDT 14 Mechanical Design – Geometric Dimensioning and Tolerancing 3.0 CSU

EDT 16 Basic CAD and Computer Applications 4.0 CSU

EDT 18 Engineering CAD Applications 4.0 CSU
MFG 11 Manufacturing Processes I, *or* 2.0 CSU
ELEC 50A Electronics Theory, and 2.0 CSU
ELEC 50AL Electronics Laboratory 1.0 CSU

Plus the following courses:

EDT 20 Technical Descriptive Geometry 3.0 CSU

EDT 24 Engineering CAD 3-D Solids and Surfaces 3.0 CSU

ELEC 50B Electronics Theory 2.0 CSU

ELEC 50BL Electronics Laboratory 1.0 CSU

MFG 11 Manufacturing Processes I, *or* 2.0 CSU

ELEC 50A Electronics Theory, *and* 2.0 CSU

ELEC 50AL Electronics Laboratory 1.0 CSU

Total Units 30.0 - 32.0

**Engineering Design Technology —
Level III**

**Architecture and Engineering Design
Department
Certificate 60916**

The Engineering Design Technology Level III Certificate focuses on the civil and structural design fields, emphasizing three-dimensional illustration and animation. This certificate allows students to pursue employment in the civil design fields.

Requirements for the Certificate

Required courses:

Level I as follows:

EDT 11 Technical Engineering Drawing I 3.0 CSU

EDT 12 Technical Engineering Drawing II 3.0 CSU

EDT 14 Mechanical Design – Geometric Dimensioning and Tolerancing 3.0 CSU

EDT 16 Basic CAD and Computer Applications 4.0 CSU

EDT 18 Engineering CAD Applications 4.0 CSU

MFG 11 Manufacturing Processes I, *or* 2.0 CSU

ELEC 50A Electronics Theory, *and* 2.0 CSU

ELEC 50AL Electronics Laboratory 1.0 CSU

Required courses:

Level II as follows:

EDT 20 Technical Descriptive Geometry 3.0 CSU

EDT 24 Engineering CAD 3-D Solids and Surfaces 3.0 CSU

EDT 24 Engineering CAD 3-D Solids and Surfaces 3.0 CSU

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EDT 24 Engineering CAD 3-D Solids and Surfaces 3.0 CSU

ELEC 50A	Electronics Theory, <i>and</i>	2.0	CSU
ELEC 50AL	Electronics Laboratory	1.0	CSU
ELEC 50B	Electronics Theory	2.0	CSU
ELEC 50BL	Electronics Laboratory	1.0	CSU
MFG 11	Manufacturing Processes I, <i>or</i>	2.0	CSU
ELEC 50A	Electronics Theory, <i>and</i>	2.0	CSU
ELEC 50AL	Electronics Laboratory	1.0	CSU
Plus the following courses:			
EDT 26	Civil Engineering Technology and CAD	3.0	CSU
EDT 28	Engineering CAD 3-D Illustration/Animation	3.0	CSU
Total Units		39.0 - 41.0	

**Escrow Management
Business Administration Department
Certificate 60511**

Requirements for the Certificate

Required courses:

BUSA 11	Fundamentals of Accounting	3.0	
BUSR 50	Real Estate Principles	3.0	CSU
BUSR 51	Legal Aspects of Real Estate	3.0	
BUSR 76	Escrow Procedures I	3.0	
BUSR 77	Escrow Procedures II	3.0	
CISB 15	Microcomputer Applications	4.0	CSU, UC
Total Units		19.0	

Family Child Care

**Family and Consumer Sciences Department
Certificate 61316**

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

Requirements for the Certificate

Required courses:

CHLD 1	Child, Family and Community	3.0	CSU, UC
CHLD 5	Principles/Practices in Child Development Programs	3.0	CSU
CHLD 6	Survey of Child Development Curriculum	3.0	CSU
CHLD 10	Child Growth and Development, <i>or</i>	3.0	CSU, UC
CHLD 10H	Child Growth and Development – Honors	3.0	CSU, UC
CHLD 92	Family Child Care	3.0	

Plus the following courses:

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

PLUS

Select one (1) course from:

CHLD 50	Multicultural Education: Anti-Bias Perspective	3.0	
CHLD 66	Early Childhood Development Observation, and	2.0	CSU
CHLD 66L	Early Childhood Development Observation Laboratory	1.0	CSU
CHLD 72	Teacher, Parent, and Child Relationships	3.0	
CHLD 73	Infant/Toddler Care and Development	3.0	CSU
Total Units		25.0	

**Fashion Design — Computer-Aided
Family and Consumer Sciences Department
Certificate 61329**

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

Requirements for the Certificate

Required courses:

FASH 20	Illustration for Fashion and Costume Design	3.0	
FASH 21	Basic Patternmaking	3.0	CSU
FASH 24	Fashion Patternmaking by Computer	3.0	
FASH 25	Fashion Computer-Assisted Drawing	3.0	
Total Units		12.0	

**Fashion Design — Level I
Family and Consumer Sciences Department
Certificate 61307**

The Fashion Design: Level I Certificate is designed to introduce the student to the employment opportunities available in both fashion design and costume design. Upon completion of the Fashion Design: Level I

Certificate, students may qualify for an entry-level design and pattern making positions in Southern California's diverse apparel industry and the entertainment industry that support the largest number of employees and contributes significantly to the economy of the region.

Requirements for the Certificate

Required courses:

FASH 8	Introduction to Fashion	3.0	CSU
FASH 10	Clothing Fundamentals	3.0	CSU
FASH 12	Advanced Clothing	3.0	CSU
FASH 15	Fashion Strategies	3.0	CSU
FASH 20	Illustration for Fashion and Costume Design	3.0	
FASH 21	Basic Patternmaking	3.0	CSU
FASH 22	Fashion Design By Draping	3.0	
FASH 23	Patternmaking II	3.0	
FASH 30	Fashion Design and Product Development I	3.0	
Total Units		27.0	

FASH 20 and FASH 23 may be taken two times for credit.

**Fashion Design — Level II
Family and Consumer Sciences Department
Certificate 61309**

The Fashion Design: Level II Certificate builds upon the Level I Certificate to provide students with intermediate skills that will enhance their Fashion Design careers. Students will have a strategic view of historic costume research, and textile attributes and characteristics. Students will be exposed to additional categories and classifications of apparel and will further research and design product for divergent target markets. Students will prepare professional portfolios strengthen career perspectives. Completion of the Fashion Design: Level II Certificate will lead to new opportunities and provide students with a solid foundation upon which to build a career.

Requirements for the Certificate

Required courses:

Level I as follows:

FASH 8	Introduction to Fashion	3.0	CSU
FASH 10	Clothing Fundamentals	3.0	CSU
FASH 12	Advanced Clothing	3.0	CSU
FASH 15	Fashion Strategies	3.0	CSU
FASH 20	Illustration for Fashion and Costume Design	3.0	
FASH 21	Basic Patternmaking	3.0	CSU

FASH 22	Fashion Design By Draping	3.0	
FASH 23	Patternmaking II	3.0	
FASH 30	Fashion Design and Product Development I	3.0	

Plus the following courses:

FASH 9	History of Costume and Fashion	3.0	CSU
FASH 17	Textiles	3.0	CSU, UC
FASH 31	Fashion Design and Product Development II	3.0	
FASH 32	Fashion Design and Product Development III	3.0	
FASH 95	Field Studies in Merchandising – California	1.0	

Total Units 40.0

Recommended Electives:

FASH 24	Fashion Patternmaking by Computer		
FASH 25	Fashion Computer-Assisted Drawing		
FASH 90	Field Studies		
FASH 91	Field Studies – New York		
FASH 92	Field Studies – Fashion Capitals		

**Fashion Merchandising — Level I
Family and Consumer Sciences Department
Certificate 61308**

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

Requirements for the Certificate

Required courses:

FASH 8	Introduction to Fashion	3.0	CSU
FASH 10	Clothing Fundamentals	3.0	CSU
FASH 15	Fashion Strategies	3.0	CSU
FASH 30	Fashion Design and Product Development I	3.0	
FASH 62	Retail Store Management and Merchandising, <i>or</i>	3.0	CSU
BUSS 50	Retail Store Management and Merchandising	3.0	CSU

Total Units 15.0

PROGRAMS OF STUDY
LEADING TO A CERTIFICATE

Programs of Study Leading to a Certificate

Fashion Merchandising — Level II
Family and Consumer Sciences Department
Certificate 61303

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

Requirements for the Certificate

Completion of the Fashion Merchandising – Level I Certificate (15 units)

Required courses:

Level I as follows:

FASH 8	Introduction to Fashion	3.0	CSU
FASH 10	Clothing Fundamentals	3.0	CSU
FASH 15	Fashion Strategies	3.0	CSU
FASH 30	Fashion Design and Product Development I	3.0	
FASH 62	Retail Store Management and Merchandising, <i>or</i>	3.0	CSU
BUSS 50	Retail Store Management and Merchandising	3.0	CSU

Plus the following courses:

Level II as follows:

FASH 9	History of Costume and Fashion	3.0	CSU
FASH 17	Textiles	3.0	CSU, UC
FASH 63	Advertising and Promotion, <i>or</i>	3.0	CSU
BUSS 33	Advertising and Promotion	3.0	CSU
FASH 66	Visual Merchandising Display	3.0	CSU

Total Units **27.0**

Recommended Electives:

FASH 25	Fashion Computer-Assisted Drawing
FASH 90	Field Studies
FASH 91	Field Studies – New York
FASH 92	Field Studies – Fashion Capitals
FCS 41	Life Management

Fire Administration

Fire Technology Department
Certificate 62130

The Fire Administration Certificate prepares public agency firefighters or private fire personnel for career advancement and provides personal development. This certificate prepares students for positions as chief officers such as battalion chief, deputy chief, or division chief. Content focuses on advanced job skills in life safety, interpersonal skills, human resource management, investigation, command presence, and implementation of local/state fire regulations. This certificate meets the requirements of the California State Board of Fire Services Certified Fire Officer Program.

Requirements for the Certificate

Required courses:

FIRE 20	Fire Instructor 1A	2.0
FIRE 21	Fire Instructor 1B	2.0
FIRE 30	Fire Management 1	2.0
FIRE 40	Fire Prevention 1A	2.0
FIRE 41	Fire Prevention 1B	2.0
FIRE 50	Fire Command 1A	2.0
FIRE 51	Fire Command 1B	2.0
FIRE 60	Fire Investigation 1A	2.0

Total Units **16.0**

Fire Management

Fire Technology Department
Certificate 62131

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

Requirements for the Certificate

Required courses:

FIRE 7	Fire Fighting Tactics and Strategy	3.0	CSU
FIRE 8	Fire Company Organization and Management	3.0	CSU
FIRE 10	Arson and Fire Investigation	3.0	CSU
FIRE 20	Fire Instructor 1A	2.0	
FIRE 21	Fire Instructor 1B	2.0	
FIRE 30	Fire Management 1	2.0	
FIRE 50	Fire Command 1A	2.0	

Total Units **17.0**

Fire Technology

Fire Technology Department
Certificate 62105

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

Requirements for the Certificate

Required courses:

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

PLUS

Select two (2) courses from:

FIRE 7	Fire Fighting Tactics and Strategy	3.0	CSU
FIRE 8	Fire Company Organization and Management	3.0	CSU
FIRE 9	Fire Hydraulics	3.0	CSU
FIRE 10	Arson and Fire Investigation	3.0	CSU
FIRE 11	Fire Apparatus and Equipment	3.0	CSU
FIRE 12	Wildland Fire Control	4.0	CSU
FIRE 86	Basic Fire Academy	12.0	
PE-F 53	Physical Training for the Basic Fire Academy	2.5	CSU

Total Units **23.5 - 34.0**

Recommended Electives:

PE-F 50	Physical Skills Preparation for Administration of Justice and Fire Technology
PE-F 51	Agility Testing Preparation for Administration of Justice and Fire Technology
PE-F 52	Fitness and Conditioning for Administration of Justice, Fire Technology, and Forestry
SPAN 66	Spanish for Fire and Police Personnel

Fitness Specialist/Personal Trainer
Physical Education Department
Certificate 60808

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

Requirements for the Certificate

Required courses:

NF 10	Nutrition for Personal Health and Wellness	3.0	CSU
PE 15	Administration of Fitness Programs	2.0	
PE 24	Kinesiology	2.0	
PE 38	Physiology of Exercise for Fitness	3.0	
PE 39	Techniques of Fitness Testing	2.0	CSU
PE 40	Techniques of Teaching Cardiovascular Exercise	2.0	
PE 41	Techniques of Teaching Weight Training	2.0	
PE 85	Fitness Specialist Internship	1.0	

Total Units **17.0**

Recommended Electives:

DNCE 39A	Alignment and Correctives I
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Floral Design

**Agricultural Sciences Department
Certificate 60113**

This certificate program is designed to give students basic skills in floral design for employment in retail shops or mass merchandising of products. All courses are applicable for degree requirements.

Requirements for the Certificate

Required courses:

AGAB 20	Microcomputer Applications in Agriculture	3.0	CSU, UC
AGOR 1	Horticultural Science	3.0	CSU
AGOR 15	Interior Landscaping	3.0	
AGOR 25	Floral Design I	3.0	CSU
AGOR 26	Floral Design II	3.0	CSU
AGOR 29	Ornamental Plants – Herbaceous	3.0	CSU, UC
AGOR 32	Landscaping and Nursery Management	3.0	CSU
Total Units		21.0	

Foster Care

**Family and Consumer Sciences Department
Certificate 61317**

This certificate requires the completion of twelve (12) units.

Requirements for the Certificate

Required courses:

CHLD 1	Child, Family and Community	3.0	CSU
CHLD 10	Child Growth and Development, <i>or</i>	3.0	CSU, UC
CHLD 10H	Child Growth and Development – Honors, <i>or</i>	3.0	CSU, UC
SOC 15	Child Development	3.0	CSU, UC
CHLD 68	Children with Special Needs	3.0	CSU
CHLD 95	Issues in Foster Parenting	1.0	
CHLD 96	Discipline and Adjustment in Foster Care	1.0	
CHLD 97	Independent Living Through Foster Care	1.0	
Total Units		12.0	

Gallery Design/Operation and Art Profession

**Art Department
Certificate 61020**

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

Requirements for the Certificate

Required courses:

ARTG 20	Intro Exhibition Design and Professional Practice	3.0	CSU
ARTG 21A	Introduction to Exhibition Production	3.0	CSU
ARTG 21B	Intermediate Exhibition Production	3.0	
ARTG 22A	Exhibition Design and Art Gallery Operation Work Experience	1.0	

PLUS

Select one (1) course from:

COMP 60	Desktop Publishing with InDesign or Pagemaker	4.0	CSU
COMP 62	Desktop Publishing with QuarkXpress	4.0	

PLUS

Select one (1) course from:

AHIS 5	History of Western Art: Renaissance Through Modern	3.0	CSU, UC
AHIS 6	History of Modern Art	3.0	CSU, UC
Total Units		17.0	

Geographic Information Systems

**History, Art History, Geography, Political Science
Certificate 62200**

The certificate program in Geographic Information Systems provides students in various disciplines the opportunity to develop expertise in the creation, manipulation, analysis, and display of geographic information. This exciting technology has applications in many fields including environmental assessment, analysis of natural hazards, site analysis for business and industry, criminal justice, real estate, location analysis, resource management, land use planning, and global changes and systems modeling.

This program was developed with two intended groups in mind: 1. Currently enrolled students who wish to focus their training and skills for a career in GIS 2. Currently employed persons who need or wish to enhance their knowledge of GIS for better understanding or to support their current job activities.

The program starts with a set of basic courses in geographic information technology and map reading.

Requirements for the Certificate

Required courses:

GEOG 3	Map Reading and Interpretation	3.0	CSU
GEOG 10	Introduction to Geographic Information Systems	3.0	CSU, UC
GEOG 11	Intermediate GIS	3.0	
Total Units		9.0	

Horse Ranch Management

**Agricultural Sciences Department
Certificate 60102**

This certificate program is designed to give students basic skills on horse ranches and agriculture sales and services. All courses are applicable for degree requirements.

Requirements for the Certificate

Required courses:

AGAB 20	Microcomputer Applications in Agriculture	3.0	CSU, UC
AGAG 59	Work Experience in Agriculture, <i>or</i>	1.0	
AGAG 60	Work Experience in Agriculture, <i>or</i>	2.0	
AGAG 61	Work Experience in Agriculture, <i>or</i>	3.0	
AGAG 62	Work Experience in Agriculture	4.0	
AGAN 2	Animal Nutrition	3.0	CSU
AGAN 94	Animal Breeding	3.0	
AGLI 16	Horse Production, <i>or</i>	4.0	CSU, UC
AGLI 18	Horse Ranch Management	4.0	CSU
AGLI 19	Horse Hoof Care	2.0	CSU
AGLI 96	Animal Sanitation and Disease Control	3.0	CSU
AGLI 97	Artificial Insemination of Livestock	2.0	
Total Units		21.0 - 24.0	

Hospitality: Catering

**Family and Consumer Sciences Department
Certificate 61315**

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

Requirements for the Certificate

Required courses:

HRM 51	Introduction to Hospitality	3.0	CSU
HRM 52	Food Safety and Sanitation	1.5	CSU
HRM 53	Dining Room Service Management	3.0	CSU
HRM 54	Basic Cooking Techniques	3.0	CSU
HRM 61	Menu Planning	3.0	CSU
HRM 62	Catering	3.0	CSU
HRM 91	Work Experience in Restaurant/Hospitality	1.0	CSU
NF 20	Principles of Foods with Lab	3.0	CSU
Total Units		20.5	

Hospitality: Food Services

**Family and Consumer Sciences Department
Certificate 61320**

This certificate prepares the holder to enter the food service field as a skilled food service worker in either food preparation or service.

Requirements for the Certificate

Required courses:

HRM 51	Introduction to Hospitality	3.0	CSU
HRM 52	Food Safety and Sanitation	1.5	CSU
HRM 53	Dining Room Service Management	3.0	CSU
Total Units		7.5	

Hospitality: Hospitality Management — Level I

**Family and Consumer Sciences Department
Certificate 61332**

The Hospitality: Hospitality Management – Level I Certificate prepares the holder for an entry-level position within the hospitality industry.

PROGRAMS OF STUDY
LEADING TO A CERTIFICATE

Programs of Study Leading to a Certificate

Requirements for the Certificate

Required courses:

HRM 51	Introduction to Hospitality	3.0	CSU
HRM 53	Dining Room Service Management	3.0	CSU
HRM 70	Introduction to Lodging	3.0	CSU
HRM 91	Work Experience in Restaurant/Hospitality	1.0	CSU
Total Units		10.0	

Hospitality: Hospitality Management — Level II
Family and Consumer Sciences Department Certificate 61325

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

Requirements for the Certificate

Required courses:

HRM 51	Introduction to Hospitality	3.0	CSU
HRM 53	Dining Room Service Management	3.0	CSU
HRM 56	Management of Hospitality Personnel and Operations	3.0	CSU
HRM 64	Hospitality Financial Accounting I	3.0	CSU
HRM 66	Hospitality Law	3.0	CSU
HRM 70	Introduction to Lodging	3.0	CSU
HRM 91	Work Experience in Restaurant/Hospitality	1.0	CSU
Total Units		19.0	

Hospitality: Restaurant Management — Level I
Family and Consumer Sciences Department Certificate 61333

The Hospitality: Restaurant Management – Level I Certificate prepares the holder for an entry-level position within a restaurant.

Requirements for the Certificate

Required courses:

HRM 51	Introduction to Hospitality	3.0	CSU
HRM 52	Food Safety and Sanitation	1.5	CSU
HRM 53	Dining Room Service Management	3.0	CSU
HRM 91	Work Experience in Restaurant/Hospitality	1.0	CSU
Total Units		8.5	

Hospitality: Restaurant Management — Level II
Family and Consumer Sciences Department Certificate 61319

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

Requirements for the Certificate

Required courses:

HRM 51	Introduction to Hospitality	3.0	CSU
HRM 52	Food Safety and Sanitation	1.5	CSU
HRM 53	Dining Room Service Management	3.0	CSU
HRM 54	Basic Cooking Techniques	3.0	CSU
HRM 57	Restaurant Cost Control	3.0	CSU
HRM 61	Menu Planning	3.0	CSU
NF 28	Cultural and Ethnic Foods	3.0	CSU, UC
Total Units		19.5	

Industrial Electronics
Electronics and Computer Technology Department Certificate 60908

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

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

Requirements for the Certificate

Required courses:

ELEC 11	Technical Applications in Microcomputers	3.0	CSU
ELEC 12	Computer Simulation and Troubleshooting	2.0	

ELEC 50A	Electronics Theory	2.0	CSU
ELEC 50AL	Electronics Laboratory	1.0	CSU
ELEC 50B	Electronics Theory	2.0	CSU
ELEC 50BL	Electronics Laboratory	1.0	CSU
ELEC 51	Electronic Devices Theory	3.0	CSU
ELEC 51L	Electronic Devices Laboratory	1.0	CSU
ELEC 54A	Industrial Circuits Theory	3.0	CSU
ELEC 54AL	Industrial Circuits Laboratory	1.0	CSU
ELEC 54B	Industrial Electronic Systems	2.0	CSU
ELEC 54BL	Industrial Electronic Systems Laboratory	1.0	CSU
ELEC 56	Digital Electronics	3.0	CSU
ELEC 56L	Digital Electronics Laboratory	1.0	CSU
ELEC 61	Electronic Assembly and Fabrication	2.0	CSU
ELMA 65A	Mathematics of Electronics	2.0	CSU
ELMA 65B	Mathematics of Electronics	2.0	CSU
Total Units		32.0	

Infant/Toddler Development
Family and Consumer Sciences Department Certificate 61318

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

Requirements for the Certificate

Required courses:

CHLD 1	Child, Family and Community	3.0	CSU, UC
CHLD 5	Principles/Practices in Child Development Programs	3.0	CSU
CHLD 6	Survey of Child Development Curriculum	3.0	CSU
CHLD 10	Child Growth and Development, <i>or</i>	3.0	CSU, UC
CHLD 10H	Child Growth and Development – Honors	3.0	CSU, UC
CHLD 73	Infant/Toddler Care and Development	3.0	CSU
CHLD 85	Infants At Risk	3.0	
PLUS			
Select four (4) courses from:			
CHLD 50	Multicultural Education: Anti-Bias Perspective	3.0	
CHLD 61	Language Arts & Art Media for Young Children	3.0	

CHLD 62	Music and Motor Development for Young Children	3.0	CSU
CHLD 64	Health, Safety and Nutrition of Young Children	3.0	
CHLD 72	Teacher, Parent, and Child Relationships	3.0	
Total Units		30.0	

Information and Operating Systems Security
Computer Information Systems Department Certificate 60731

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

Requirements for the Certificate

Required courses:

CISS 11	Practical Computer Security	2.0	
CISS 13	Principles of Information Systems Security	4.0	
CISS 15	Operating Systems Security	4.0	
Total Units		10.0	

Interior Design Level I — Merchandising
Family and Consumer Sciences Department Certificate 61322

This program is intended to prepare students for employment as assistants and sales personnel for interior design products. The Interior Design program works within a Regional Interior Design Consortium of nearby community colleges. Many of the required courses may also be offered at the following community colleges: Fullerton, Long Beach City, Orange Coast, and Saddleback, and will meet the requirements of the Mt. SAC program. Regional course numbers have an ID (*Interior Design*) prefix. Some Mt. San Antonio College courses are offered by other departments and are identified by Mt. San Antonio College prefixes and numbers. These courses have the regional identification course number (RID) in parenthesis following their course title.

Requirements for the Certificate

Required courses:

ARCH 11	Architectural Drawing	3.0	CSU, UC
ARCH 16	Basic CAD and Computer Application	4.0	CSU, UC

BUSS 35	Professional Selling	3.0	CSU
ID 100	Fundamentals of Interior Design	3.0	CSU
ID 105	Interior Design Studio I	2.0	CSU
ID 120	Interior Design Careers	2.0	CSU
ID 130	Applied Color and Design Theory	4.0	CSU
ID 150	Interior Materials and Products	4.0	CSU
Total Units		25.0	

Interior Design Level II — Design Family and Consumer Sciences Department Certificate 61330

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

Requirements for the Certificate

Required courses:

Completion of the Interior Design Level I – Merchandising Certificate (25 units) as follows:

ARCH 11	Architectural Drawing	3.0	CSU, UC
ARCH 16	Basic CAD and Computer Application	4.0	CSU, UC
BUSS 35	Professional Selling	3.0	CSU
ID 100	Fundamentals of Interior Design	3.0	CSU
ID 105	Interior Design Studio I	2.0	CSU
ID 120	Interior Design Careers	2.0	CSU
ID 130	Applied Color and Design Theory	4.0	CSU
ID 150	Interior Materials and Products	4.0	CSU

Required courses:

Level II as follows:

ARCH 13	Architectural Illustration	3.0	CSU, UC
ARCH 15	Architectural Working Drawings – I	3.0	CSU
ID 170	Space Planning	3.0	CSU

ID 180	History of Interior Architecture & Furnishings I	3.0	CSU
ID 190	History of Interior Architecture & Furnishings II	3.0	CSU
ID 210	Fundamentals of Lighting	3.0	
ID 215	Interior Design Studio II	2.0	CSU
ID 230	Business and Professional Practice	3.0	
ID 240A	Interior Design Internship Seminar, and	1.0	
ID 240B	Interior Design Internship	1.0	
Total Units		50.0	

Interior Design Level III — Professional Designation Family and Consumer Sciences Department Certificate 61301

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

Requirements for the Certificate

Required courses:

Completion of the Interior Design Level I – Merchandising Certificate (25 units) as follows:

ARCH 11	Architectural Drawing	3.0	CSU, UC
ARCH 16	Basic CAD and Computer Application	4.0	CSU, UC
BUSS 35	Professional Selling	3.0	CSU
ID 100	Fundamentals of Interior Design	3.0	CSU
ID 105	Interior Design Studio I	2.0	CSU
ID 120	Interior Design Careers	2.0	CSU
ID 130	Applied Color and Design Theory	4.0	CSU
ID 150	Interior Materials and Products	4.0	CSU

Required courses:

Level II as follows:

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

Required courses:

Level III as follows:

ARCH 18	Architectural Computer Aided Design Elements	3.0	
BUSA 7	Principles of Accounting – Financial	5.0	CSU, UC
ID 250	Codes and Specifications for Interior Design	2.0	CSU
ID 260	Rendering and Rapid Visualization	2.0	CSU
ID 265	Interior Design Studio III – Kitchens	2.0	
ID 275	Interior Design Studio IV – Bath Design	2.0	CSU
Total Units		66.0	

Interior Landscaping

Agricultural Sciences Department Certificate 60106

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

Requirements for the Certificate

Required courses:

AGOR 1	Horticultural Science	3.0	CSU
AGOR 13	Landscape Design	3.0	CSU
AGOR 15	Interior Landscaping	3.0	
AGOR 24	Integrated Pest Management	3.0	CSU

AGOR 29	Ornamental Plants – Herbaceous	3.0	CSU, UC
AGOR 32	Landscaping and Nursery Management	3.0	CSU
AGOR 62	Landscape Irrigation – Design and Installation	3.0	CSU
AGOR 64	Landscape Irrigation – Drip and Low Volume	3.0	
Total Units		24.0	

Introduction to Computer Information Technology

Computer Information Systems Department Certificate 60712

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

Requirements for the Certificate

Required courses:

CISB 11	Computer Information Systems	3.5	CSU, UC
CISW 11	The Internet	4.0	CSU
COMP 12	Office Computer Applications, <i>or</i>	4.0	CSU, UC
CISB 15	Microcomputer Applications	4.0	CSU, UC
Total Units		11.5	

Kitchen and Bath Design

Family and Consumer Sciences Department Certificate 61302

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

Requirements for the Certificate

Required courses:

ARCH 11	Architectural Drawing	3.0	CSU, UC
ARCH 15	Architectural Working Drawings – I	3.0	CSU
ARCH 16	Basic CAD and Computer Application	4.0	CSU, UC
ID 100	Fundamentals of Interior Design	3.0	CSU

PROGRAMS OF STUDY LEADING TO A CERTIFICATE

Programs of Study Leading to a Certificate

ID 105	Interior Design Studio I	2.0	CSU
ID 130	Applied Color and Design Theory	4.0	CSU
ID 150	Interior Materials and Products	4.0	CSU
ID 170	Space Planning	3.0	CSU
ID 180	History of Interior Architecture & Furnishings I	3.0	CSU
ID 190	History of Interior Architecture & Furnishings II	3.0	CSU
ID 210	Fundamentals of Lighting	3.0	
ID 215	Interior Design Studio II	2.0	CSU
ID 230	Business and Professional Practice	3.0	
ID 240A	Interior Design Internship Seminar, and	1.0	
ID 240B	Interior Design Internship	1.0	
ID 240C	Interior Design/Kitchen & Bath Internship	2.0	
ID 250	Codes and Specifications for Interior Design	2.0	CSU
ID 265	Interior Design Studio III – Kitchens	2.0	
ID 275	Interior Design Studio IV – Bath Design	2.0	CSU
INSP 70	Elements of Construction	3.0	CSU
INSP 71	Construction Estimating	3.0	CSU
Total Units		56.0	

Recommended Electives:

ARCH 13	Architectural Illustration
ARCH 23	Architectural Presentations
BUSA 72	Bookkeeping – Accounting
BUSM 60	Human Relations in Business
BUSM 66	Small Business Management
BUSS 35	Professional Selling
BUSS 50	Retail Store Management and Merchandising

**Landscape and Park Maintenance
Agricultural Sciences Department
Certificate 60108**

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

Requirements for the Certificate

Required courses:

AGOR 1	Horticultural Science	3.0	CSU
AGOR 24	Integrated Pest Management	3.0	CSU
AGOR 29	Ornamental Plants – Herbaceous	3.0	CSU, UC

AGOR 30	Ornamental Plants – Trees and Woody Shrubs	3.0	CSU, UC
AGOR 39	Turf Grass Production and Management	3.0	CSU
AGOR 40	Sports Turf Management	3.0	
AGOR 51	Tractor and Landscape Equipment Operations	3.0	CSU
AGOR 62	Landscape Irrigation – Design and Installation	3.0	CSU
AGOR 63	Landscape Irrigation Systems Management	3.0	
AGOR 71	Landscape Construction Fundamentals	3.0	CSU
Total Units		30.0	

**Landscape Design and Construction
Agricultural Sciences Department
Certificate 60109**

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

Requirements for the Certificate

Required courses:

AGOR 1	Horticultural Science	3.0	CSU
AGOR 13	Landscape Design	3.0	CSU
AGOR 29	Ornamental Plants – Herbaceous	3.0	CSU, UC
AGOR 30	Ornamental Plants – Trees and Woody Shrubs	3.0	CSU, UC
AGOR 50	Soil Science and Management	3.0	CSU, UC
AGOR 51	Tractor and Landscape Equipment Operations	3.0	CSU
AGOR 62	Landscape Irrigation – Design and Installation	3.0	CSU
AGOR 71	Landscape Construction Fundamentals	3.0	CSU
AGOR 72	Landscape Hardscape Applications	3.0	CSU
Total Units		27.0	

**Landscape Equipment Technology
Agricultural Sciences Department
Certificate 60117**

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

Requirements for the Certificate

Required courses:

AGOR 1	Horticultural Science	3.0	CSU
AGOR 51	Tractor and Landscape Equipment Operations	3.0	CSU
AGOR 52	Hydraulics	3.0	CSU
AGOR 53	Small Engine Repair I	3.0	CSU
AGOR 54	Small Engine Repair II	3.0	CSU
AGOR 55	Diesel Engine Repair	3.0	CSU
AGOR 56	Engine Diagnostics	3.0	CSU
AGOR 57	Power Train Repair	3.0	
AGOR 71	Landscape Construction Fundamentals	3.0	CSU
AGOR 72	Landscape Hardscape Applications	3.0	CSU
AGOR 91	Work Experience in Nursery Operations, <i>or</i>	1.0	
AGOR 92	Work Experience in Nursery Operations, <i>or</i>	2.0	
AGOR 93	Work Experience in Nursery Operations, <i>or</i>	3.0	
AGOR 94	Work Experience in Nursery Operations	4.0	
Total Units		31.0 - 34.0	

Landscape Irrigation

**Agricultural Sciences Department
Certificate 60110**

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

Requirements for the Certificate

Required courses:

AGOR 1	Horticultural Science	3.0	CSU
AGOR 13	Landscape Design	3.0	CSU
AGOR 39	Turf Grass Production and Management	3.0	CSU
AGOR 50	Soil Science and Management	3.0	CSU, UC
AGOR 51	Tractor and Landscape Equipment Operations	3.0	CSU
AGOR 62	Landscape Irrigation – Design and Installation	3.0	CSU
AGOR 63	Landscape Irrigation Systems Management	3.0	

AGOR 64	Landscape Irrigation – Drip and Low Volume	3.0	
AGOR 71	Landscape Construction Fundamentals	3.0	CSU
Total Units		27.0	

Law Enforcement

**Public Services Department
Certificate 62102**

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

Requirements for the Certificate

Required courses:

ADJU 1	The Administration of Justice System	3.0	CSU, UC
ADJU 2	Principles and Procedures of the Justice System	3.0	CSU
ADJU 3	Concepts of Criminal Law	3.0	CSU, UC
ADJU 4	Legal Aspects of Evidence	3.0	CSU
ADJU 5	Community Relations	3.0	CSU, UC
ADJU 68	Administration of Justice Report Writing	3.0	

PLUS

Select four (4) courses from:

ADJU 6	Concepts of Enforcement Services	3.0	
ADJU 13	Concepts of Traffic Services	3.0	
ADJU 20	Principles of Investigation	3.0	CSU
ADJU 38	Narcotics Investigation	3.0	
ADJU 59	Street Gangs and Law Enforcement	3.0	
ADJU 74	Vice Control	3.0	
CORS 30	Ethnic Relations in Corrections	3.0	
CORS 40	Crime and Delinquency	3.0	
CORS 45	The Violent Offender	3.0	

Total Units 30.0

Recommended Electives:

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

**Legal Office Specialist
Office Technology Department
Certificate 60519**

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

**Requirements for the Certificate
Required courses:**

BUSL 30	Introduction to Paralegal/Legal	3.0	CSU
BUSL 35A	Law Office Procedures	3.0	
BUSL 35B	Automated Law Office Procedures	3.0	
BUSO 5	Business English	3.0	
BUSO 25	Business Communications	3.0	CSU
COMP 1	Computer Keyboarding	4.0	CSU
COMP 2	Intermediate Computer Keyboarding	4.0	
COMP 11	Internet Research for Business	2.0	CSU
COMP 12	Office Computer Applications, <i>or</i>	4.0	CSU, UC
CISB 15	Microcomputer Applications	4.0	CSU, UC
COMP 20	Microsoft Word, <i>or</i>	4.0	
COMP 120A	Microsoft Word – Level 1, <i>and</i>	1.0	
COMP 120B	Microsoft Word – Level 2	1.0	
COMP 28	Office Management Skills	3.0	
COMP 29	Computer Keyboarding Skill Building	0.5	
COMP 68	Transcription Techniques	3.0	
Total Units		37.5 - 39.5	

The core courses for the Legal Office Specialist certificate are equivalent to the courses required for the Administrative Assistant Levels I and II certificates.

**Livestock Management
Agricultural Sciences Department
Certificate 60103**

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

**Requirements for the Certificate
Required courses:**

AGAB 20	Microcomputer Applications in Agriculture	3.0	CSU, UC
AGAG 1	Food Production, Land Use and Politics – A Global Perspective	3.0	CSU, UC
AGAG 91	Agricultural Calculations	3.0	
AGAN 1	Animal Science	3.0	CSU, UC
AGAN 2	Animal Nutrition	3.0	CSU
AGAN 94	Animal Breeding	3.0	
AGLI 14	Swine Production	3.0	CSU
AGLI 16	Horse Production	4.0	CSU, UC
AGLI 17	Sheep Production	3.0	CSU
AGLI 30	Beef Production	3.0	CSU
AGLI 34	Livestock Judging and Selection	2.0	CSU, UC
AGLI 96	Animal Sanitation and Disease Control	3.0	CSU
PLUS			
Select six (6) units from:			
AGOR 71	Landscape Construction Fundamentals	3.0	CSU
BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 66	Small Business Management	3.0	
BUSS 35	Professional Selling	3.0	CSU
BUSS 36	Principles of Marketing	3.0	CSU
Total Units		42.0	

**LVN 30-Unit Option —
Career Mobility Track
Nursing Department
Certificate 61202**

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

A certificate of completion is awarded at the end of the course of study. The student who elects to complete the 30-Unit Option track is not a graduate of the Associate in Science Degree Nursing Program at Mt. San Antonio College. Individuals who complete this track are not eligible to return to the college at a later date to complete a degree in nursing. LVN applicants must

declare their educational goal at the time of application (30-Unit or Associate Degree). This decision is not subject to change at a later date.

Prerequisite Course

- Human Anatomy, including a laboratory component, a minimum of four semester units.
- Human Physiology, including a laboratory component, a minimum of four semester units.
- Microbiology, including a laboratory component, a minimum of four semester units.

Non-Course Requirements

- An overall grade point average of 2.5 for the Human Anatomy, Human Physiology, and Microbiology prerequisite courses with no grade less than a "C" for each course and no more than one repetition of any one of these courses.
- A cumulative grade point average (GPA) of 2.5 for all college coursework completed.
- Eligibility for Math 51
- High school graduation or GED or academic degree from an accredited college/ university in the United States.
- Possess a California Licensed Vocational Nurse license.
- Criminal background check and drug screening must be completed prior to any patient contact.
- A physical examination, including specific immunizations is required of candidates prior to the beginning of nursing classes.
- Current Level C-Provider CPR certification
- Nursing 70 Role Transition must be completed with a credit grade prior to entrance into the program. (*NURS 70, Role Transition – Due to the clinical component of NURS 70, applicants must submit their names to 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 Nursing

Required courses:

NURS 5	Psychiatric Nursing	3.0	CSU
NURS 8	Medical-Surgical Nursing: Circulation and Oxygenation	5.0	CSU
NURS 9	Leadership in Nursing	1.0	CSU
NURS 10	Medical-Surgical Nursing: Integration/Regulation	4.0	CSU
NURS 11	Preceptorship in Nursing	2.0	CSU
Total Units		15.0	

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

Selection Process:

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

Procedure:

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

The eligibility appointment:

- Once a student has completed all course prerequisites, they may request an appointment with a counselor or educational advisor.
- Students who have completed coursework at other colleges must bring the following information to their eligibility appointment:
 - Official transcripts of all college work completed at all colleges
 - If the prerequisite courses were completed at another college, a course description and a copy of the course syllabus
 - Students completing college coursework outside of the United States will need to have their transcripts evaluated by an approved international transcript evaluation agency and must bring the final evaluation to their appointment (*students may be able to obtain a list of agencies from the Admissions Office*).
 - All students will need to bring official proof of high school graduation, GED, or college graduation from an accredited institution in the United States.

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

September 1 - November 30
March 1 - May 30

Students should also be aware that once they have been admitted to the Nursing program and before beginning the Clinical portion of the program, they will need to be able to pass both a criminal background check, including a screening by the Office of Inspector General for welfare or Social Security fraud, as well as testing negative for drug use.

Programs of Study Leading to a Certificate

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

Physical Demands

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

Sensory Demands

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

Working Environment

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

Machine Operator

Aircraft Maintenance Technology & Manufacturing Department Certificate 60956

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

Requirements for the Certificate

Required courses:

MFG 11	Manual and CNC Manufacturing Essentials	2.0	CSU
MFG 12	Advanced Manufacturing Processes	2.0	CSU
MFG 58	Blueprint Reading for Manufacturing	2.0	
MFG 70	Technical Mathematics – Manufacturing Applications	2.0	CSU
MFG 85	Manual CNC (Computerized Numerical Control) Operations	2.0	CSU

PLUS

Select one (1) course from:

MFG 38	MasterCAM I	2.0	CSU
MFG 39	SurfCAM I	2.0	CSU

Total Units 12.0

Manufacturing Technology

Aircraft Maintenance Technology & Manufacturing Department Certificate 60918

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

Requirements for the Certificate

Required courses:

MFG 11	Manufacturing Processes I	2.0	CSU
MFG 12	Manufacturing Processes II	2.0	CSU
MFG 15	AutoCAD 2D	2.0	
MFG 17	3-D CAD – Mechanical Modeling	2.0	
MFG 19	Parametric Solid Modeling for Manufacturing	2.0	
MFG 38	MasterCAM I	2.0	CSU
MFG 38B	Advanced MasterCAM	2.0	CSU
MFG 38C	MasterCAM Solids	2.0	
MFG 39	SurfCAM I	2.0	CSU
MFG 39B	SurfCAM II	2.0	CSU

MFG 58	Blueprint Reading for Manufacturing	2.0	
MFG 70	Technical Mathematics – Manufacturing Applications	2.0	CSU
MFG 85	Manual CNC (Computerized Numerical Control) Operations	2.0	CSU

PLUS

Select two (2) courses from:

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

Total Units 30.0

Marketing Management

Business Administration Department Certificate 60510

Requirements for the Certificate

Required courses:

BUSM 20	Principles of Business	3.0	CSU, UC
BUSM 61	Business Organization and Management	3.0	CSU
BUSS 35	Professional Selling	3.0	CSU
BUSS 36	Principles of Marketing	3.0	CSU
BUSS 50	Retail Store Management and Merchandising	3.0	
BUSS 70	International Marketing Concepts	3.0	
BUSS 79	Work Experience in Marketing Management	1.0	
BUSS 85	Special Issues in Marketing	2.0	
CISB 15	Microcomputer Applications	4.0	CSU, UC

Total Units 25.0

MasterCAM

Aircraft Maintenance Technology & Manufacturing Department Certificate 60927

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

Requirements for the Certificate

Required courses:

MFG 11	Manufacturing Processes I	2.0	CSU
MFG 38	MasterCAM I	2.0	CSU

MFG 38B	Advanced MasterCAM	2.0	CSU
MFG 38C	MasterCAM Solids	2.0	
Total Units			8.0

Medical Office Specialist

Office Technology Department Certificate 60523

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

Requirements for the Certificate

Required courses:

BUSA 72	Bookkeeping – Accounting	5.0	
BUSO 5	Business English	3.0	
BUSO 25	Business Communications	3.0	CSU
COMP 1	Computer Keyboarding	4.0	CSU
COMP 2	Intermediate Computer Keyboarding	4.0	
COMP 12	Office Computer Applications, <i>or</i>	4.0	CSU, UC
CISB 15	Microcomputer Applications	4.0	CSU, UC
COMP 18	Data Entry	3.0	
COMP 20	Microsoft Word, <i>or</i>	4.0	
COMP 120A	Microsoft Word – Level 1, <i>and</i>	1.0	
COMP 120B	Microsoft Word – Level 2	1.0	
COMP 28	Office Management Skills	3.0	
COMP 68	Transcription Techniques	3.0	
MEDI 90	Medical Terminology	3.0	CSU

Total Units 37.0 - 39.0

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

Mental Health Technology — Psychiatric Technician

Psychiatric Technician Department Certificate 61209

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

Requirements for the Certificate

Required courses:

MENT 40	Introduction to Interviewing and Counseling, <i>or</i>	3.0
PSYC 40	Introduction to Interviewing and Counseling	3.0
MENT 56	Medical-Surgical Nursing for Psychiatric Technicians	9.0
MENT 56L	Clinical Experience	4.0
MENT 58	Advanced Medical-Surgical Nursing for Psychiatric Technicians	2.0
MENT 58L	Advanced Medical-Surgical Nursing for Psychiatric Technicians Clinical	1.5
MENT 70	Introduction to Psychiatric Technology	1.5
MENT 70L	Introduction to Psychiatric Technology Clinical Technicians	2.0
MENT 71	Pharmacology for Psychiatric Technicians	2.0
MENT 72	Nursing Care of the Developmentally Disabled Person	7.0
MENT 72L	Nursing Care of the Developmentally Disabled Person – Clinical	5.0
MENT 73L	Psychiatric Nursing for Psychiatric Technicians Clinical	5.0
MENT 73T	Psychiatric Nursing for Psychiatric Technicians	6.0
PSYC 1A	Introduction to Psychology	3.0 CSU, UC
Total Units		51.0

Special Information:

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

The student will qualify to take the California State Board Examination upon completion of all the above courses.

Entrance Requirements and Selection Procedures:

Entrance Requirements:

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

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

- b. Be 18 years of age.
- c. File a college application and be accepted as a student at Mt. San Antonio College.
- d. Submit an application for the Mental Health/ Psychiatric Technician Program to the Technology and Health Division Office (909) 594-5611, Ext. 4750. All applications are dated upon receipt in the Technology and Health Division Office. A program begins each fall and spring semester.
- e. Take the required English Placement Test (AWE). Eligibility for ENGL 68 is advised. If you have already taken a college placement exam within the past two years at another school, arrange to have your test scores forwarded to the Technology and Health Division Office. (*If you were tested at Mt. San Antonio College, the office will obtain the test scores as long as an “Application for Admission” is on file with the Admissions and Records Office.*) Testing is administered by the Assessment Center, located in the Student Services Center. Arrangements should be made with them to schedule a day and time to take the English Placement Test, if required. The Assessment Center is open Monday through Friday. You may contact them at (909) 594-5611, Ext. 4265.
- f. Forward two official transcripts of all coursework completed (*high school, nursing school, and other than Mt. San Antonio College courses.*) One transcript must be sent to the Technology and Health Division Office and the other to the Admissions and Records Office.
- g. For students who possess a college degree, the English Placement Test is not required. However, it will be necessary for a student to obtain two official copies of the college transcript showing the degree issued. One transcript must be sent to the Technology and Health Division Office and the other to the Admissions and Records Office.

Note: Concerning Entrance Requirements ‘e’ and ‘f’, if the course(s) were taken and/or the degree obtained at Mt. San Antonio College, it is not necessary to request transcripts.

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

Example:

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

- h. A physical examination, including specific immunizations, and consent/ disclaimer for Hepatitis A/B vaccine is required of all candidates prior to beginning classes. Students must provide proof that he/she does not have Tuberculosis. These requirements are in accordance with healthcare agency policy that insures that students are in good health and free from communicable disease and able to perform their training functions. Drug testing may also be required as a part of this physical examination. Proof of high school graduation and malpractice insurance are required of all candidates upon acceptance.
- i. Certain convictions may prevent a candidate from being licensed as a Psychiatric Technician.
- j. All students may be required to complete a background check prior to entering the clinical education phase.

Selection Procedure:

In determining eligibility of an applicant, consideration will be given to satisfactory scores on the English Placement Test.

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

Microcomputer Productivity Software

Computer Information Systems Department Certificate 60702

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

Requirements for the Certificate

Required courses:

CISB 13	Microsoft Windows, <i>or</i>	2.0	CSU
CISN 21	Windows Operating System	4.0	CSU
CISB 15	Microcomputer Applications	4.0	CSU, UC
CISB 21	Microsoft Excel	4.0	
CISD 11	Database Management – Microcomputers	4.0	CSU
CISW 11	The Internet	4.0	CSU
COMP 50	Desktop Presentations Using PowerPoint	4.0	CSU

Total Units 22.0 - 24.0

Nursery Management

Agricultural Sciences Department Certificate 60107

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

Requirements for the Certificate

Required courses:

AGOR 1	Horticultural Science	3.0	CSU
AGOR 2	Plant Propagation/Greenhouse Management	3.0	CSU
AGOR 24	Integrated Pest Management	3.0	CSU
AGOR 29	Ornamental Plants – Herbaceous	3.0	CSU, UC
AGOR 30	Ornamental Plants – Trees and Woody Shrubs	3.0	CSU, UC
AGOR 32	Landscaping and Nursery Management	3.0	CSU
AGOR 39	Turf Grass Production and Management	3.0	CSU
AGOR 62	Landscape Irrigation – Design and Installation	3.0	CSU
AGOR 64	Landscape Irrigation – Drip and Low Volume	3.0	

Total Units 27.0

Nutrition Program Assistant – Level I

Family and Consumer Sciences Department Certificate 61331

This certificate prepares students to work for community agencies and programs as nutrition assistants.

Requirements for the Certificate

Required courses:

HRM 52	Food Safety and Sanitation	1.5	CSU
NF 20	Principles of Foods with Lab	3.0	CSU
NF 25	Essentials of Nutrition, <i>or</i>	3.0	CSU, UC
NF 25H	Essentials of Nutrition – Honors, <i>or</i>	3.0	CSU, UC
NF 10	Nutrition for Personal Health and Wellness	3.0	CSU
NF 28	Cultural and Ethnic Foods	3.0	CSU, UC

Total Units 10.5

PROGRAMS OF STUDY LEADING TO A CERTIFICATE

Programs of Study Leading to a Certificate

**Nutrition Program Assistant —
Level II: Child Program Emphasis**
Family and Consumer Sciences Department
Certificate 61335

This certificate prepares students to work for community agencies such as the Federal Supplemental Nutrition Program for Women, Infants and Children (WIC), Head Start, and School Food Service as nutrition assistants. Coursework is designed to provide basic skills and knowledge necessary to entry-level positions in nutrition programs that serve children.

Requirements for the Certificate

Required courses:

Level I as follows:

HRM 52	Food Safety and Sanitation	1.5	CSU
NF 20	Principles of Foods with Lab	3.0	CSU
NF 25	Essentials of Nutrition, <i>or</i>	3.0	CSU, UC
NF 25H	Essentials of Nutrition – Honors, <i>or</i>	3.0	CSU, UC
NF 10	Nutrition for Personal Health and Wellness	3.0	CSU
NF 28	Cultural and Ethnic Foods	3.0	CSU, UC

Plus the following courses:

CHLD 10	Child Growth and Development	3.0	CSU, UC
CHLD 64	Health, Safety and Nutrition of Young Children	3.0	
CHLD 83	Current Issues in Child Development	1.0	
Total Units		17.5	

**Nutrition Program Assistant —
Level II: Weight Management
Program Emphasis**

Family and Consumer Sciences Department
Certificate 61336

This certificate prepares students to work as nutrition assistants in the public or private sector. Coursework is designed to provide the basic skills and knowledge necessary for entry-level positions in a variety of businesses, agencies and programs that focus on weight management.

Requirements for the Certificate

Required courses:

Level I as follows:

HRM 52	Food Safety and Sanitation	1.5	CSU
NF 20	Principles of Foods with Lab	3.0	CSU

NF 25	Essentials of Nutrition, <i>or</i>	3.0	CSU, UC
NF 25H	Essentials of Nutrition – Honors, <i>or</i>	3.0	CSU, UC
NF 10	Nutrition for Personal Health and Wellness	3.0	CSU
NF 28	Cultural and Ethnic Foods	3.0	CSU, UC
Plus the following courses:			
NF 81	Cooking for Your Heart and Health	1.0	
PE 34	Fitness for Living	3.0	CSU, UC
PSYC 40	Introduction to Interviewing and Counseling	3.0	
Total Units		17.5	

**Parametric Solid Modeling
Aircraft Maintenance Technology &
Manufacturing Department
Certificate 60923**

With the strong relationship between AutoCAD and Manufacturing, this mini certificate glides the student through AutoDesk's 2-D, 3-D, Mechanical Desktop, and Inventors packages and relates them to real-life industrial usage.

Requirements for the Certificate

Required courses:

MFG 15	AutoCAD 2D	2.0	
MFG 17	3-D CAD – Mechanical Modeling	2.0	
MFG 19	Parametric Solid Modeling for Manufacturing	2.0	
MFG 25	Advanced Parametric Solid Modeling for Manufacturing	2.0	
MFG 27	Autodesk Inventor	2.0	
Total Units		10.0	

Park Management

Agricultural Sciences Department
Certificate 60116

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

Requirements for the Certificate

Required courses:

AGOR 1	Horticultural Science	3.0	CSU
AGOR 4	Park Management	3.0	
AGOR 5	Park Facilities	3.0	

AGOR 24	Integrated Pest Management	3.0	CSU
AGOR 30	Ornamental Plants – Trees and Woody Shrubs	3.0	CSU, UC
AGOR 39	Turf Grass Production and Management	3.0	CSU
AGOR 51	Tractor and Landscape Equipment Operations	3.0	CSU
AGOR 62	Landscape Irrigation – Design and Installation	3.0	CSU
AGOR 63	Landscape Irrigation Systems Management	3.0	
AGOR 75	Urban Arboriculture	3.0	
Total Units		30.0	

Pet Science

Agricultural Sciences Department
Certificate 60104

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

Requirements for the Certificate

Required courses:

AGAB 20	Microcomputer Applications in Agriculture	3.0	CSU, UC
AGAN 1	Animal Science	3.0	CSU, UC
AGAN 2	Animal Nutrition	3.0	CSU
AGAN 51	Animal Handling and Restraint	3.0	CSU
AGAN 94	Animal Breeding	3.0	
AGLI 96	Animal Sanitation and Disease Control	3.0	CSU
AGPE 70	Pet Shop Management	3.0	
AGPE 71	Canine Management	3.0	
AGPE 72	Feline Management	3.0	
AGPE 73	Tropical and Coldwater Fish Management	2.0	
AGPE 76	Aviculture – Cage and Aviary Birds	3.0	
BUSM 66	Small Business Management	3.0	
Total Units		35.0	

Photography

Photographics Department
Certificate 61002

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

Requirements for the Certificate

Required courses:

GRAP 10	Photo Editing with Photoshop	3.0	
PHOT 10	Basic Digital and Film Photography	3.0	CSU, UC
PHOT 11	Advanced Professional Photography	4.0	
PHOT 12	Photographic Alternatives, <i>or</i>	3.0	CSU, UC
PHOT 21	Exploring Color Photography	3.0	
PHOT 16	Fashion Photography, <i>or</i>	3.0	
PHOT 18	Portraiture and Wedding Photography	3.0	
PHOT 17	Photocommunication	3.0	
PHOT 20	Color Photography	3.0	
PHOT 28	Photography Portfolio Development	2.0	
PHOT 30	Commercial and Illustrative Photography	3.0	
Total Units		27.0	

Recommended Electives:

AHIS 1	Understanding the Visual Arts, <i>or</i>		
ARTB 1	Understanding the Visual Arts		
GRAP 12	Advanced Photo Editing with Photoshop		
PHOT 1	Laboratory Studies: Black and White Photography		
PHOT 2	Laboratory Studies: Color Photography		
PHOT 15	History of Photography		

Programming In C++

Computer Information Systems Department
Certificate 60704

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

Requirements for the Certificate

Required courses:

CISB 11	Computer Information Systems	3.5	CSU, UC
CISD 11	Database Management – Microcomputers	4.0	CSU
CISM 11	Systems Analysis and Design	3.5	CSU, UC
CISM 21	Client/Server Architecture, <i>or</i>	4.0	
CISP 21	Programming in Java	4.0	CSU, UC
CISN 21	Windows Operating System	4.0	CSU
CISP 31	Programming in C++	4.0	CSU, UC
CISP 34	Advanced C++ Programming	4.0	CSU, UC
Total Units		27.0	

Programming In Visual Basic

Computer Information Systems Department Certificate 60709

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

Requirements for the Certificate

Required courses:

CISB 11	Computer Information Systems	3.5	CSU, UC
CISD 11	Database Management – Microcomputers	4.0	CSU
CISM 11	Systems Analysis and Design	3.5	CSU, UC
CISM 14	Computer Information Systems Seminar	4.0	
CISM 21	Client/Server Architecture	4.0	
CISP11	Basic Programming	4.0	CSU, UC
CISP 14	Advanced Basic Programming	4.0	CSU, UC
Total Units		27.0	

Radio Broadcasting: Behind the Scenes

Art Department Certificate 60606

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

Requirements for the Certificate

Required courses:

R-TV 01	Introduction to Broadcasting	3.0	CSU
R-TV 09	Broadcast Sales and Promotion	3.0	
R-TV 10	Radio Management and Programming	3.0	
R-TV 11A	Beginning Radio Production	3.0	CSU
R-TV 11B	Advanced Radio Production	3.0	CSU
R-TV 15	Broadcast Business Practices	3.0	
R-TV 16	Broadcast Career Preparation	3.0	
R-TV 97A	Radio/Entertainment Industry Seminar	1.0	
R-TV 97B	Radio/Entertainment Industry Internship	1.0	
R-TV 97C	Entertainment Industry Internship – KSAK Radio, <u>or</u>	1.0	
R-TV 97D	Entertainment Industry Internship – KSAK Radio	2.0	

PLUS

Select nine (9) units from:

R-TV 03	Sportscasting and Reporting	1.5	
R-TV 05	Radio-TV Newswriting	3.0	
R-TV 06	Broadcast Traffic Reporting	1.5	
R-TV 08	KSAK Radio Studio Operations	2.0	CSU
R-TV 12	Commercial Copywriting	3.0	
R-TV 17	Internet Radio Broadcasting	3.0	
R-TV 26	Legal Issues in Entertainment Law	3.0	
R-TV 27	Radio Drama	3.0	
Total Units		33.0 - 34.0	

Radio Broadcasting: On the Air

Art Department Certificate 60605

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

Requirements for the Certificate

Required courses:

R-TV 01	Introduction to Broadcasting	3.0	CSU
R-TV 02	Radio and Television Announcing	3.0	CSU
R-TV 05	Radio and Television Newswriting	3.0	
R-TV 07	Commercial Voice-Overs	3.0	
R-TV 11A	Beginning Radio Production	3.0	CSU
R-TV 11B	Advanced Radio Production	3.0	CSU
R-TV 15	Broadcast Business Practices	3.0	
R-TV 16	Broadcast Career Preparation	3.0	
R-TV 95A	Radio Station Activities, <u>or</u>	1.0	
R-TV 95B	Radio Station Activities, <u>or</u>	2.0	
R-TV 95C	Radio Station Activities	3.0	
R-TV 97A	Radio Broadcasting Seminar	1.0	
R-TV 97B	Radio Broadcasting Internship	1.0	

PLUS

Select six (6) units from:

R-TV 03	Sportscasting and Reporting	1.5	
R-TV 04	Broadcast News Field Reporting	3.0	
R-TV 06	Broadcast Traffic Reporting	1.5	
R-TV 08	KSAK Radio Studio Operations	2.0	CSU
R-TV 10	Radio Management and Programming	3.0	

R-TV 12	Commercial Copywriting	3.0	
R-TV 17	Internet Radio Broadcasting	3.0	
R-TV 26	Legal Issues in Entertainment Law	3.0	
R-TV 27	Radio Drama	3.0	
Total Units		33.0 - 35.0	

Real Estate

Business Administration Department Certificate 60512

Requirements for the Certificate

Required courses:

BUSR 50	Real Estate Principles	3.0	CSU
BUSR 51	Legal Aspects of Real Estate	3.0	
BUSR 52	Real Estate Practice, <u>or</u>	3.0	
BUSR 52D	Real Estate Practice Work Experience	4.0	
BUSR 53	Real Estate Finance	3.0	
BUSR 54	Real Estate Appraisal	3.0	

PLUS

Select one (1) course from:

BUSA 11	Fundamentals of Accounting	3.0	
BUSL 18	Business Law	3.0	CSU, UC
BUSR 55	Real Estate Economics	3.0	
BUSR 57	Income Tax Aspects of Real Estate Investments	3.0	
BUSR 59	Real Estate Property Management	3.0	
BUSR 76	Escrow Procedures I	3.0	
Total Units		18.0 - 19.0	

Real Estate Appraisal

Business Administration Department Certificate 60513

Requirements for the Certificate

Required courses:

BUSR 50	Real Estate Principles	3.0	CSU
BUSR 53	Real Estate Finance	3.0	
BUSR 54	Real Estate Appraisal	3.0	
BUSR 54SE	Standards, Ethics and Statistics for Professional Practice	1.5	
BUSR 56	Advanced Real Estate Appraisal	3.0	
BUSR 66	General Appraiser Report Writing and Case Studies	3.0	
CISB 15	Microcomputer Applications	4.0	CSU, UC

PLUS

Select one (1) course from:

BUSA 11	Fundamentals of Accounting	3.0	
BUSO 25	Business Communications	3.0	CSU
BUSR 52	Real Estate Practice	3.0	
BUSR 55	Real Estate Economics	3.0	
BUSR 62	Mortgage Loan Brokering and Lending	3.0	
INSP 70	Elements of Construction	3.0	CSU
Total Units		23.5	

Recreation Technology

Physical Education Department Certificate 62104

The Recreation Technology Certificate prepares students for careers in recreation and leisure services including public recreation, non-profit organizations, commercial recreation, recreation therapy travel and tourism.

Requirements for the Certificate

Required courses:

PE 2	The Recreation Program	2.0	CSU
PE 3	First Aid and CPR	3.0	CSU, UC
PE 13	Sports Officiating	3.0	CSU, UC
PE 20	Recreation and Leisure Services	3.0	CSU
PE 34	Fitness for Living	3.0	CSU, UC
SPCH 1A	Public Speaking, <u>or</u>	3.0	CSU, UC
CISB 15	Microcomputer Applications	4.0	CSU, UC

PLUS

Select one (1) course from:

PE-A	Physical Education: Aquatics	0.5 - 2.0	CSU, UC
PE-F	Physical Education: Fitness	0.1 - 2.5	CSU, UC

PLUS

Select one (1) course from:

PE-I	Physical Education: Individual	0.5 - 1.0	CSU, UC
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PLUS

Select one (1) course from:

PE-S	Physical Education: Team Sports	0.5 - 1.0	CSU, UC
Total Units		18.1 - 22.0	

PROGRAMS OF STUDY LEADING TO A CERTIFICATE

Programs of Study Leading to a Certificate

School Age Child — Specialization
Family and Consumer Sciences Department
Certificate 61314

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

Requirements for the Certificate

Required courses:

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

PLUS

Select one (1) course from:

ENGL 64	Writing Effective Sentences	1.0	
ENGL 65	Grammar Review	1.0	
LIT 40	Children's Literature	3.0	CSU

PLUS

Select three (3) units from:

LERN 49	Math Skills Review	3.0	
MATH 50	Pre-Algebra	3.0	

Total Units 31.0 - 33.0

Sign Language/Interpreting

Sign Language Department
Certificate 60801

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

To remain in the program, students must maintain a "C" or better grade in all courses.

Requirements for the Certificate

Required courses:

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

Total Units 47.0

Recommended Electives:

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

Sports Turf Management

Agricultural Sciences Department
Certificate 60112

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

Requirements for the Certificate

Required courses:

AGOR 1	Horticultural Science	3.0	CSU
AGOR 24	Integrated Pest Management	3.0	CSU
AGOR 30	Ornamental Plants – Trees and Woody Shrubs	3.0	CSU, UC
AGOR 39	Turf Grass Production and Management	3.0	CSU
AGOR 40	Sports Turf Management	3.0	
AGOR 50	Soil Science and Management	3.0	CSU, UC
AGOR 51	Tractor and Landscape Equipment Operations	3.0	CSU
AGOR 62	Landscape Irrigation – Design and Installation	3.0	CSU
AGOR 63	Landscape Irrigation Systems Management	3.0	

Total Units 27.0

SurfCAM

Aircraft Maintenance Technology & Manufacturing Department
Certificate 60925

This certificate is a direct path for manufacturing students to write, edit, download and run Computerized Numerical Control (CNC) machines, and provides a strong background in the basics of both manual and CNC machines.

Requirements for the Certificate

Required courses:

MFG 11	Manufacturing Processes I	2.0	CSU
MFG 39	SurfCAM I	2.0	CSU
MFG 39B	SurfCAM II	2.0	CSU
MFG 85	Manual CNC (Computerized Numerical Control) Operations	2.0	CSU

Total Units 8.0

Telecommunications

Computer Information Systems Department
Certificate 60708

This certificate program is intended to prepare students to work with microcomputer networks and communication systems.

Requirements for the Certificate

Required courses:

CISB 11	Computer Information Systems	3.5	CSU, UC
CISM 11	Systems Analysis and Design	3.5	CSU, UC
CISM 21	Client/Server Architecture	4.0	

CISN 11	Telecommunications/Networking Fundamentals	4.0	CSU
CISN 14	Advanced Telecommunications	4.0	
CISN 41	Novell Netware Systems Administration, <i>or</i>	4.0	CSU
CISN 24	Microsoft NT Network System Administration	4.0	CSU
CISW 11	The Internet	4.0	CSU
Total Units		27.0	

Television Production

Art Department
Certificate 60602

Requirements for the Certificate

Required courses:

R-TV 01	Introduction to Broadcasting	3.0	CSU
R-TV 15	Broadcast Business Practices	3.0	
R-TV 16	Broadcast Career Preparation	3.0	
R-TV 19A	Beginning Television Production	3.0	CSU
R-TV 19B	Advanced Television Production	3.0	CSU
R-TV 98A	Television/Film Seminar	1.0	
R-TV 98B	Television/Film Internship	1.0	

PLUS

Select nine (9) units from:

R-TV 18	Writing for Television/Film	3.0	CSU
R-TV 20	Television News Production	3.0	
R-TV 21	Remote Television Production and Engineering	3.5	
R-TV 22	Electronic Graphics and Non-Linear Editing	3.0	

Total Units 26.0

Recommended Electives:

ANIM 115	Storyboarding		
R-TV 26	Legal Issues in Entertainment Law		
THTR 17	Acting for Television		

Theatrical Costumer

Theater Department
Certificate 61001

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

Requirements for the Certificate

Required courses:

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

PLUS

Select six (6) units from:

ARTD 20	Design: Two Dimensional	3.0	CSU, UC
THTR 14	Stagecraft	3.0	CSU, UC
THTR 15	Play Rehearsal and Performance	2.0	CSU, UC
THTR 16	Theatrical Make-Up	2.0	CSU, UC
THTR 18	Technical Theater Practicum	1.0	CSU, UC

Total Units 24.0

Tree Care and Maintenance

Agricultural Sciences Department Certificate 60111

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

Requirements for the Certificate

Required courses:

AGOR 1	Horticultural Science	3.0	CSU
AGOR 24	Integrated Pest Management	3.0	CSU
AGOR 30	Ornamental Plants – Trees and Woody Shrubs	3.0	CSU, UC
AGOR 32	Landscaping and Nursery Management	3.0	CSU
AGOR 50	Soil Science and Management	3.0	CSU, UC
AGOR 51	Tractor and Landscape Equipment Operations	3.0	CSU
AGOR 53	Small Engine Repair I	3.0	CSU
AGOR 75	Urban Arboriculture	3.0	

Total Units 24.0

Water Technology

Air Conditioning, Welding & Water Technologies Certificate 60921

This program is designed to train students who wish to: (1) seek employment in the water treatment industry, or (2) qualify for a specialized position within the water treatment industry. Material covered in the courses will

be helpful to students who wish to prepare for Grade I, Grade II, or Grade III Water Treatment Operator certification examinations given by the State of California, Department of Health, and the AWWA Distribution Operation Certification. It also covers the responsibilities of water supply, State Health Department Title 17 Cross-Connections, and Title 22 Water Quality Standards.

Requirements for the Certificate

Required courses:

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

Total Units 18.0

Web Page Design

Art Department Certificate 60618

This certificate program is designed to provide students with a combination of aesthetic design principles and the technical expertise necessary for employment as a Web page designer.

Requirements for the Certificate

Required courses:

ANIM 175	Web Animation with Flash	3.0
ARTC 60	Graphic Design: Lettering and Typography	3.0
ARTC 70	Computer Graphics: Introduction	3.0
ARTC 74	Computer Graphics: Web Page Design	3.0
ARTC 171	Computer Graphics 2: Layout and Design with QuarkXpress	3.0
ARTD 20	Design: Two Dimensional	3.0
COMP 13	Using Web Page Software	4.0
PHOT 10	Beginning Photography	3.0

Total Units 25.0

Welding

Air Conditioning, Welding & Water Technologies Certificate 60919

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

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

Requirements for the Certificate

Required courses:

WELD 40	Introduction to Welding	2.0	CSU
WELD 70A	Beginning Arc Welding	3.0	
WELD 70B	Intermediate Arc Welding	3.0	

Total Units 8.0

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

Recommended Electives:

MFG 70	Technical Mathematics – Manufacturing Applications
WELD 60	Print Reading and Computations for Welders
WELD 70C	Certification for Welders

Section 9

Transferring to California Colleges and Universities



PROGRAMS OF STUDY LEADING TO TRANSFER

Mt. San Antonio College offers lower division transfer courses to meet the requirements for most baccalaureate majors offered by accredited colleges and universities in the United States. Students should meet with an educational advisor or counselor in the Student Services Center for information about transfer courses in their major. It is advised that the student visit the Advising Center in advance of the next registration period.

Students should develop an educational plan by the end of their second semester. Students with declared majors are encouraged to consult with an educational advisor in the Advising Center or a counselor in the Counseling Center. Students who are undecided are encouraged to see a counselor or enroll in COUN 5 – Career/Life Planning.

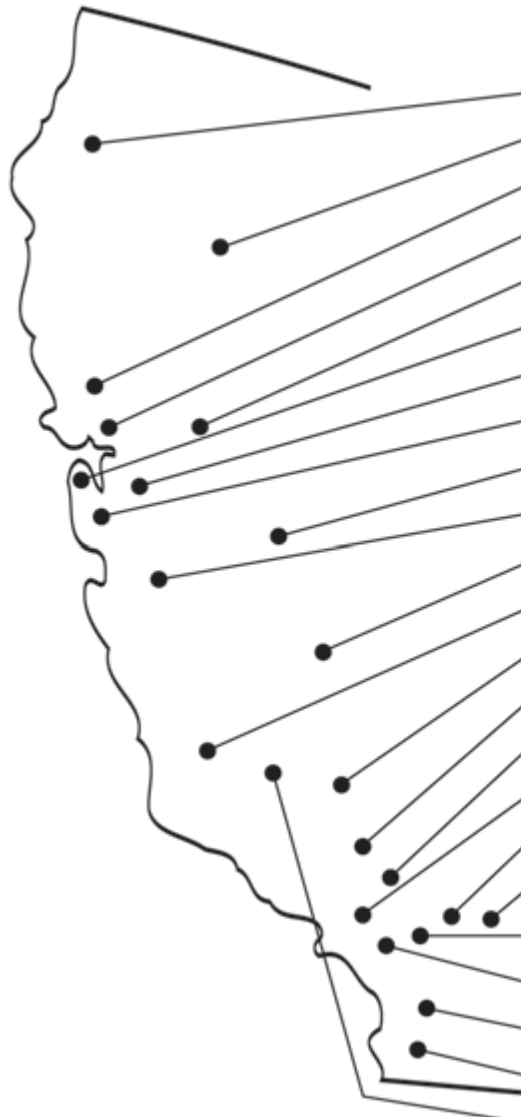
Listed below are majors that may be offered at various campuses of the California State University (CSU) and/or the University of California (UC). Although a serious attempt was made to make this list a comprehensive one, it is not an exact list of every major available. To find out exactly what major is available at any particular university, please visit the Advising Center. All of the CSU and UC catalogs are available in the Advising Center for your use. If you are undecided about which major is right for you, please make an appointment with a counselor in the Counseling Center, Ext. 4380.

Students who are preparing to transfer, especially to a UC campus, are strongly encouraged to balance their studies by taking both general education courses and lower division (freshman/sophomore) major courses. Completing only general education courses, especially for high unit majors, such as business administration, natural sciences, math or engineering, may not be in a student's best interest. Additional coursework may be completed as elective courses, to complement or supplement, a major course of study.

UNIVERSITY TRANSFER MAJOR OPTIONS		
<p>Liberal Arts</p> <ul style="list-style-type: none"> Art Art History Classics Comparative Cultures Creative Studies Drama/Theater Arts English and Literature Foreign Languages and Literatures Humanities Liberal Studies Linguistics Medieval Studies Museum Studies Music Musicology Philosophy Religious Studies Renaissance Studies Rhetoric 	<p>Social Sciences</p> <ul style="list-style-type: none"> Anthropology Behavioral Sciences Child Development Cultural Geography Economics Ethnic and Area Studies Asian Studies Chicana/Chicano Studies Comparative Cultures European Studies Latin American Studies Middle Eastern Studies Native American Studies Third World Studies History Human Development Law and Society Legal Studies Peace and Conflict Studies Political Science Psychology 	<ul style="list-style-type: none"> Social Ecology Sociology Urban Studies Women's Studies <p>Natural Sciences & Math</p> <p><i>LIFE SCIENCES</i></p> <ul style="list-style-type: none"> Biological Sciences Animal Physiology Biochemistry Biomedical Sciences Botany Ecology Environmental Biology Genetics Integrative Biology Marine Biology Microbiology Molecular Biology Zoology Health Sciences

UNIVERSITY TRANSFER MAJOR OPTIONS (continued)		
<p><i>PHYSICAL SCIENCES</i></p> <ul style="list-style-type: none"> Astrophysics Atmospheric Sciences Chemistry Earth Science Geophysics Geology Oceanography Physical Geography Physical Sciences Physics Soil/Water Sciences <p><i>MATH</i></p> <ul style="list-style-type: none"> Mathematics Statistics Quantitative Methods <p>Agriculture/Natural Resources/Environment</p> <ul style="list-style-type: none"> Agricultural Management Agriculture Animal Science Bio-resources Conservation Entomology Environmental Biology/ Toxicology Fisheries Environmental Science/Studies Food Science Forestry Natural Resources Management Park Management Petroleum Studies Plant Biology Soil Sciences Wildlife Management <p>Applied Arts</p> <ul style="list-style-type: none"> Architecture Art Design Graphic Arts 	<ul style="list-style-type: none"> Industrial Design Interior Design Landscape <p>Engineering & Computer Science</p> <p><i>COMPUTER SCIENCE/ENGINEERING</i></p> <ul style="list-style-type: none"> Aeronautics Bio-engineering Chemical Civil Electrical/Electronic Environmental Food Engineering Industrial Engineering Materials Science Mechanical Nuclear Petroleum <p>Business</p> <ul style="list-style-type: none"> Accounting Finance Human Resources Management Information Systems International Business Management Marketing Communication Advertising <p>Communication Studies</p> <ul style="list-style-type: none"> Film Studies Journalism Mass Communication Motion Picture – Television Photography Photo – Journalism Public – Relations Radio – Television Services <p>Services</p> <ul style="list-style-type: none"> Communicative Disorders Counseling Criminal Justice 	<ul style="list-style-type: none"> Deaf Studies Dental Hygiene (UCSF) Fire Protection Administration Government/Public Service Health Care Management Human Services Liberal Studies Library Science Medical Lab Technology Nursing Nutrition Occupational Therapy Physical Education Public Health Radiologic Technology Recreation Administration Rehabilitation Social Work

The California State University



- Humboldt State University**
1 Harpst Street, Arcata, CA 95521-4957 • (707) 826-4402
- California State University, Chico**
400 W. First Street, Chico, CA 95929-0722 • (530) 898-6321
- Sonoma State University**
1801 East Cotati Avenue, Rohnert Park, CA 94928 • (707) 664-2778
- California Maritime Academy**
200 Maritime Academy Drive, Vallejo, CA 94590 • (800) 561-1945
- California State University, Sacramento**
6000 J Street, Sacramento, CA 95819-6048 • (916) 278-3901
- San Francisco State University**
1600 Holloway Avenue, San Francisco, CA 94132-4002 • (415) 338-1113
- California State University, East Bay**
25800 Carlos Bee Blvd., Hayward, CA 94542-3035 • (510) 885-2624
- San Jose State University**
One Washington Square, San Jose, CA 95192-0009 • (408) 283-7500
- California State University, Stanislaus**
801 West Monte Vista Avenue, Turlock, CA 95382 • (209) 667-3152
- California State University, Monterey Bay**
100 Campus Center Drive, Seaside, CA 93955-8001 • (831) 582-3518
- California State University, Fresno**
5150 North Maple Avenue, Fresno, CA 93740-0057 • (559) 278-2261
- California Polytechnic State University, San Luis Obispo**
One Grand Avenue, San Luis Obispo, CA 93407 • (805) 756-2311
- California State University, Bakersfield**
9001 Stockdale Highway, Bakersfield, CA 93311-1099 • (661) 664-3036
- California State University, Northridge**
18111 Nordoff Street, Northridge, CA 91330-8207 • (818) 677-3700
- California State University, Los Angeles**
5151 State University Drive, Los Angeles, CA 90032-8530 • (323) 343-3901
- California State University, Dominguez Hills**
1000 East Victoria Street, Carson, CA 90747 • (310) 243-3696
- California Polytechnic University, Pomona**
3801 West Temple Avenue, Pomona, CA 91768-4003 • (909) 869-3210
- California State University, San Bernardino**
5500 University Parkway, San Bernardino, CA 92407-2397 • (909) 880-5188
- California State University, Fullerton**
800 N. State College Blvd., Fullerton, CA 92834-9480 • (714) 278-2300
- California State University, Long Beach**
1250 Bellflower Blvd., Long Beach, CA 90840-0106 • (562) 985-5471
- California State University, San Marcos**
333 S. Twin Oaks Valley Rd., San Marcos, CA 92096-0001 • (760) 750-4848
- San Diego State University**
5500 Campanile Drive, San Diego, CA 92182-7455 • (619) 594-6336
- California State University, Channel Islands**
One University Drive, Camarillo, CA 93012 • (805) 437-8500

CALIFORNIA STATE UNIVERSITY

Lower Division Transfer Admission Requirements

Many campuses must restrict enrollment of lower division transfer students due to heavy enrollment pressure. California residents are eligible for admission with fewer than 60 transferable semester units (90 quarter units) if they:

- Have a college grade point average of 2.00 or better in all transferable college units attempted.
- Are in good standing at the last college or university attended, i.e., you are eligible to re-enroll.
- Meet the admission requirements for a first-time freshman or have successfully completed necessary courses to make up the deficiencies you had in high school if you did not complete the 15-unit pattern of college preparatory subjects.
- Meet the eligibility index required of a freshman.

Some campuses may require lower division transfer students to have completed English composition and general education mathematics prior to transfer.

Contact your campus of choice to determine whether there are admission limits on the number of lower-division transfer students.

Students who completed college units before they graduated from high school or during the summer between high school graduation and CSU enrollment are considered first-time freshmen and must meet those admission requirements.

Upper Division Transfer Admission Requirements

Students are eligible for admission with 60 or more transferable semester units (90 quarter units) if they:

- Have a college grade point average of 2.00 or better (2.40 for non-California residents) in all transferable college units attempted.
- Are in good standing at the last college or university attended, i.e. are eligible to re-enroll.
- Have completed or will complete prior to transfer at least 30 semester units (45 quarter units) of courses equivalent to general education requirements with a grade of "C" or better. The 30 units must include all of the general education requirements in communication in the English language (English composition, oral communication, and critical thinking) and at least one course of at least 3 semester units (4 quarter units) required in college-level mathematics.

The above information is from the 2006-2007 California State University (CSU) undergraduate application.

CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION REQUIREMENTS 2006-07

The requirements listed below are for the 2006-2007 academic year and are based upon information available at the time of catalog publication. Students may contact the Advising Center for most current information at (909) 594-5611, ext. 4293.

Forty-eight units of general education are required to graduate from campuses of the CSU system. A maximum of 39 units may be certified by community colleges; nine units must be taken at the upper division level. Acceptable courses are grouped in five areas, A through E. A maximum of 30 units may be certified from Areas B through D collectively. The list of certifiable courses will be subject to change year by year, but students are assured that courses taken to meet General Education-Breadth Requirements will be honored if they are on the list during the year taken. The following program is structured so that a student who completes the program will be assured of properly meeting the General Education-Breadth Requirements of CSU. Area A and Mathematics must be completed with a

minimum grade of "C." Students who have attended other colleges are urged to consult with a counselor or educational advisor for advice on satisfying General Education-Breadth Requirements. Students beginning Fall 2006 must follow 2006-2007 CSU GE-Breadth requirements. Courses are approved for the academic year in which they were completed. Students may obtain a copy from the Advising Center or Counseling Center. For the most recent version of the CSU GE, come to the Advising Center located in Student Services, upper level.

<p>Area A</p> <p>The English Language and Critical Thinking (9 units) Select <u>one</u> course from each group:</p> <p>A-1: Oral Communication: SPCH 1A Public Speaking, <i>or</i> SPCH 1AH Public Speaking – Honors</p> <p>A-2: Written Communication: ENGL 1A Freshman Composition ENGL 1AH Freshman Composition – Honors</p> <p>A-3: Critical Thinking: ENGL 1C Critical Thinking and Writing ENGL 1CH Critical Thinking and Writing – Honors PHIL 3 Logic in Practice PHIL 3H Logic in Practice – Honors PHIL 8 Critical Thinking PHIL 9 Critical Thinking and Logical Writing PSYC 5 Psychology of Reasoning and Problem Solving SPCH 1B Advanced Public Speaking SPCH 20 Argumentation and Debate SPCH 20H Argumentation and Debate – Honors</p>	<p>+CHEM 51 General Chemistry II 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 Geology GEOL 7 Geology of California GEOL 8 Earth Science GEOL 8H Earth Science – Honors +GEOL 8L Earth Science Laboratory GEOL 9 Environmental Geology GEOL 10 Natural Disasters GEOL 13 Evolution of the Earth METO 3 Weather and the Atmospheric Environment +METO 3L Weather and the Atmospheric Environment Laboratory OCEA 10 Introduction to Oceanography OCEA 10H Introduction to Oceanography – Honors +OCEA 10L Introduction to Oceanography Laboratory PHSC 7 Physical Science +PHSC 7L Physical Science Laboratory +PHYS 1 Physics +PHYS 2AG General Physics +PHYS 2BG General Physics +PHYS 4A Engineering Physics</p>	<p>+BIOL 4 Biology for Majors +BIOL 4H Biology for Majors – Honors BIOL 6 Humans and the Environment +BIOL 6L Humans and the Environment Laboratory BIOL 17 Neurobiology and Behavior BIOL 20 Marine Biology +BIOL 21 Marine Biology Laboratory +MICR 1 Principles of Microbiology +MICR 22 Microbiology PSYC 1B Biological Psychology</p> <p>B-3: Lab Science <i>This requirement is met by taking ONE of the courses above indicated by a "+" sign. Lab must be a corresponding section to the lecture course taken.</i></p> <p>B-4: Mathematics Select at least <u>one</u> 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 120 Finite Mathematics MATH 130 College Algebra MATH 140 Calculus for Business MATH 150 Trigonometry MATH 160 Precalculus Mathematics MATH 180 Calculus and Analytic Geometry MATH 181 Calculus and Analytic Geometry MATH 280 Calculus and Analytic Geometry MATH 285 Linear Algebra and Differential Equations PSYC 10 Statistics for the Behavioral Sciences</p>	<p>AHIS 1H Understanding the Visual Arts – Honors AHIS 2 Topics in Visual Art and Culture AHIS 2H Topics in Visual Art and Culture – Honors AHIS 3 History of Women and Gender in Art AHIS 3H History of Women and Gender in Art – Honors AHIS 4 History of Western Art: Prehistoric Through Gothic AHIS 4H History of Western Art: Prehistoric Through Gothic – Honors AHIS 5 History of Western Art: Renaissance Through Modern AHIS 5H History of Western Art: Renaissance Through Modern – Honors AHIS 6 History of Modern Art AHIS 6H History of Modern Art – Honors AHIS 9 History of Asian Art AHIS 11 History of African, Oceanic and Native American Art AHIS 12 History of Pre-Columbian Art AHIS 12H History of Pre-Columbian Art – Honors ARTB 14 Basic Studio Arts ARTD 15A Drawing: Beginning ARTD 20 Design: Two Dimensional ARTD 25A Painting: Beginning ARTS 22 Design: Three Dimensional ARTS 30A Ceramics: Beginning ARTS 40A Sculpture: Beginning DN-T 20 History and Appreciation of Dance ID 180 History of Interior Architecture and Furnishings I</p>
<p>Area B</p> <p>The Physical Universe & Life (9 units minimum): Select <u>one</u> course from each group. Also, one lab (+) course must be included in <u>one</u> of the science groups.</p> <p>B-1: Physical Science – Select at least <u>one</u> course from the following list: ASTR 5 Introduction to Astronomy +ASTR 5L Astronomical Observing Laboratory ASTR 7 Geology of the Solar System ASTR 8 Introduction to Stars, Galaxies, and the Universe +CHEM 10 Chemistry for Allied Health Majors +CHEM 20 Introductory Organic and Biochemistry +CHEM 40 Introduction to General Chemistry +CHEM 50 General Chemistry I +CHEM 50H General Chemistry I – Honors</p>	<p>B-2: Life Science Select at least <u>one</u> course from the following list: AGOR 1 Horticultural Science +ANAT 10A Introductory Human Anatomy +ANAT 10B Introductory Human Physiology +ANAT 35 Human Anatomy +ANAT 36 Human Physiology ANTH 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</p>	<p>Area C</p> <p>Arts, Literature, Philosophy and Foreign Languages (9 units) Select <u>three</u> courses, with at least <u>one</u> course from "Arts" and <u>one</u> course from "Humanities".</p> <p>C-1: Arts AHIS 1 Understanding the Visual Arts, <i>or</i> ARTB 1 Understanding the Visual Arts</p>	<p>MUS 7 Fundamentals of Music MUS 11A Music Literature Survey MUS 11B Music Literature Survey MUS 12 History of Jazz MUS 13 Introduction to Music Appreciation MUS 13H Introduction to Music Appreciation – Honors MUS 14A World Music</p>

CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION REQUIREMENTS 2006-07

MUS 14B	American Folk Music
MUS 15	Rock Music History and Appreciation
PHOT 15	History of Photography
SPCH 4	Oral Interpretation of Literature
THTR 9	Introduction to Theatre Arts
THTR 10	History of Theatre Arts
THTR 11	Principles of Acting I
C-2: Humanities	
CHIN 1	Elementary Chinese
CHIN 2	Continuing Elementary Chinese
CHIN 3	Intermediate Chinese
CHIN 4	Continuing Intermediate Chinese
ENGL 1B	English – Intro to Literary Types
ENGL 1BH	English – Intro to Literary Types – Honors
FRCH 1	Elementary French
FRCH 2	Continuing Elementary French
FRCH 3	Intermediate French
FRCH 4	Continuing Intermediate French
FRCH 5	Advanced French
FRCH 6	Continuing Advanced French
FRCH 60	French Culture Through Cinema
GERM 1	Elementary German
GERM 2	Elementary German
GERM 3	Intermediate German
GERM 4	Intermediate German
* HIST 1	History of the United States
* HIST 3	History of World Civilization
* HIST 3H	History of World Civilization – Honors
* HIST 4	History of World Civilization
* HIST 4H	History of World Civilization – Honors
* HIST 7	History of the United States
* HIST 7H	History of the United States – Honors
* HIST 8	History of the United States
* HIST 8H	History of the United States – Honors
* HIST 10	History of Asia
* HIST 11	History of Asia
* HIST 19	History of Mexico
* HIST 30	History of the African American
* HIST 31	History of the African American
* HIST 35	History of Africa
* HIST 36	Women in American History – Beyond the Stereotypes
* HIST 39	California History
* HIST 40	History of the Mexican American
HUMA 1	The Humanities
ITAL 1	Elementary Italian
ITAL 2	Continuing Elementary Italian

ITAL 3	Intermediate Italian
ITAL 4	Continuing Intermediate Italian
ITAL 5	Advanced Italian
ITAL 6	Continuing Advanced Italian
ITAL 60	Italian Culture Through Cinema
JAPN 1	Elementary Japanese
JAPN 2	Continuing Elementary Japanese
JAPN 3	Intermediate Japanese
JAPN 4	Continuing Intermediate Japanese
JAPN 5	Advanced Japanese
LIT 1	Early American Literature
LIT 2	Modern American Literature
LIT 6A	Survey of English Literature
LIT 6B	Survey of English Literature
LIT 11A	World Literature
LIT 11B	World Literature
LIT 14	Introduction to Modern Poetry
LIT 15	Introduction to Cinema
LIT 20	African American Literature
LIT 25	Contemporary Mexican American Lit
LIT 33	Images of Women in Literature
LIT 35	Science Fiction and Fantasy Survey
LIT 36	Introduction to Mythology
LIT 40	Children's Literature
LIT 46	The Bible as Literature: Old Testament
LIT 47	The Bible as Literature: New Testament
PHIL 5	Introduction to Philosophy
PHIL 5H	Introduction to Philosophy – Honors
PHIL 12	Ethics
PHIL 12H	Ethics – Honors
PHIL 15	Major World Religions
PHIL 15H	Major World Religions – Honors
PHIL 20A	History of Western Philosophy
PHIL 20B	History of Western Philosophy
SIGN 101	American Sign Language 1
SIGN 202	American Deaf Culture
SPAN 1	Elementary Spanish
SPAN 2	Continuing Elementary Spanish
SPAN 3	Intermediate Spanish
SPAN 3H	Intermediate Spanish – Honors
SPAN 4	Continuing Intermediate Spanish
SPAN 5	Advanced Spanish
SPAN 6	Continuing Advanced Spanish
SPAN 11	Spanish for the Spanish Speaking
SPAN 12	Continuing Spanish for the Spanish Speaking
SPAN 25	Spanish Literature

Area D

Social, Political, and Economic Institutions and Behavior; Historical Background

Required Courses: Minimum 9 units with courses from at least two disciplines (DO – D9):

D-0: Sociology & Criminology

CHLD 1	Child, Family and Community
SOC 1	Sociology
SOC 1H	Sociology – Honors
SOC 2	Sociology
SOC 2H	Sociology – Honors
SOC 4	Introduction to Gerontology
SOC 5	Introduction to Criminology
SOC 14	Marriage and the Family
SOC 15	Child Development
SOC 20	Sociology of Ethnic Relations
SOC 20H	Sociology of Ethnic Relations – Honors

D-1: Anthropology & Archeology

ANTH 3	Archeology
ANTH 5	Principles of Cultural Anthropology
ANTH 22	General Cultural Anthropology
ANTH 30	The Native American

D-2: Economics

AGAG 1	Food Production, Land Use and Politics – A Global Perspective
AGFR 20	Conservation of Natural Resources
BUSC 1A	Principles of Economics – Macroeconomics
BUSC 1AH	Principles of Economics – Macroeconomics – Honors
BUSC 1B	Principles of Economics – Microeconomics
BUSC 1BH	Principles of Economics – Microeconomics – Honors
JOUR 100	Mass Media and Society

D-3: Ethnic Studies

* HIST 30	History of the African American
* HIST 31	History of the African American
* HIST 40	History of the Mexican American
JOUR 107	Race, Gender, and Mass Media Images
POLI 25	Politics of the Mexican American
POLI 35	African American Politics
SOC 20	Sociology of Ethnic Relations
SOC 20H	Sociology of Ethnic Relations – Honors

D-4: Gender Studies

* HIST 36	Women in American History – Beyond the Stereotypes
* PSYC 25	The Psychology of Women

D-5: Geography

GEOG 2	Human Geography
GEOG 2H	Human Geography – Honors
GEOG 5	World Regional Geography
GEOG 8	The Urban World
GEOG 30	Geography of California

D-6: History

* HIST 1	History of the United States
* HIST 3	History of World Civilization
* HIST 3H	History of World Civilization – Honors
* HIST 4	History of World Civilization
* HIST 4H	History of World Civilization – Honors
* HIST 7	History of the United States
* HIST 7H	History of the United States – Honors
* HIST 8	History of the United States
* HIST 8H	History of the United States – Honors
* HIST 10	History of Asia
* HIST 11	History of Asia
* HIST 19	History of Mexico
* HIST 30	History of the African American
* HIST 31	History of the African American
* HIST 35	History of Africa

Attention: It is recommended that you use one of the options below as part of the 9 units required in Area D.

CSU AMERICAN INSTITUTIONS & U.S. HISTORY GRADUATION REQUIREMENT:

Option 1:	HIST 7 (or 7H) + HIST 8 (or 8H)
	If Option #1 is selected, DO NOT select another D6 course as your third Area D course.
Option 2:	Completion of one course from U.S. History plus one course from American Institutions:
	United States History:
	HIST 1 HIST 7H HIST 8H HIST 31 HIST 40
	HIST 7 HIST 8 HIST 30 HIST 36
	American Institutions:
	POLI 1 POLI 25
	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.

CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION REQUIREMENTS 2006-07

- * HIST 36 Women in American History – Beyond the Stereotypes
- * HIST 39 California History
- * HIST 40 History of the Mexican American

D-7: Interdisciplinary Social or Behavioral

- * CHLD 10 Child Growth and Development
- * CHLD 10H Child Growth and Development – Honors
- SPCH 7 Intercultural Communication
- SPCH 26 Interpersonal Communication
- SPCH 26H Interpersonal Communication – Honors

D-8: Political Science, Government, and Legal Institutions

- POLI 1 Political Science
- POLI 1H Political Science – Honors
- POLI 2 Political Science
- POLI 5 Political Science Theory
- POLI 9 Introduction to International Relations
- POLI 25 Politics of the Mexican American
- POLI 35 African American Politics

D-9: Psychology

- PSYC 1A Introduction to Psychology
- PSYC 1AH Introduction to Psychology – Honors
- PSYC 19 Abnormal Psychology
- * PSYC 25 The Psychology of Women

Lifelong Understanding & Self Development (3 units)

Select at least *one* course.

- AD 3 Chemical Dependency: Intervention, Treatment and Recovery
- BIOL 5 Contemporary Health Issues
- BIOL 13 Human Reproduction, Development and Aging
- BIOL 15 Human Sexuality
- BIOL 15H Human Sexuality – Honors
- * CHLD 10 Child Growth and Development
- * CHLD 10H Child Growth and Development – Honors
- COUN 5 Career/Life Planning
- FCS 41 Life Management
- LEAD 55 Exploring Leadership
- NF 10 Nutrition for Personal Health and Wellness
- NF 25 Essentials of Nutrition
- NF 25H Essentials of Nutrition – Honors
- NF 28 Cultural and Ethnic Foods
- PE 34 Fitness for Living
- PSYC 14 Developmental Psychology

- * PSYC 25 The Psychology of Women
- PSYC 26 Psychology of Sexuality
- PSYC 33 Psychology for Effective Living

Notes

1. Upper division transfer students (60 -70 semester baccalaureate units), will need to have at least 30 semester units of general education. Within those 30 units, Area A (9) semester units and Mathematics (3) semester units must be completed with grades of "C" or better.
2. CSULA transfer students are advised to complete ENGL 1C or ENGL 1CH as part of the Area A requirements. CSULA requires completion of ENGL 102 (ENGL 1C or 1CH) as a prerequisite to UNIV 400 (Writing Proficiency Examination).
3. Courses on this list have been approved by the CSU Office of the Chancellor for Fall 2006 and beyond. If a course was completed prior to approval, it cannot be certified for CSU General Education—Breadth requirements.
4. Some majors at CSU do not allow double counting of major preparation courses and general education requirements. Students are advised to consult with a counselor or advisor to determine if courses can be double counted.
5. Some majors require specific general education courses. Students planning to transfer are advised to plan their schedules carefully in order to maintain progress.

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

The University of California

<http://www.ucop.edu/pathways>



UNIVERSITY OF CALIFORNIA

UC Minimum Admission Requirements

There are several ways to meet the University's minimum admission requirements for transfer students, as described below. The path you use depends on the degree to which you satisfied UC's minimum eligibility requirements for freshmen, at the time you graduated from high school. In all cases, you must have at least a "C" (2.0) grade point average in all transferable coursework. If you need assistance in determining whether you met the requirements, contact an educational advisor in the Advising Center or a counselor in the Counseling Center.

Minimum Admission Requirements for California Residents Transferring to UC

1. If you were eligible for admission to the University when you graduated from high school – meaning you satisfied the Subject, Scholarship, and Examination Requirements, or were identified by the University during your senior year in high school as eligible under the Eligibility in the Local Context (ELC) program – you are eligible to transfer if you have a "C" (2.0) average in your transferable coursework.
2. If you met the Scholarship Requirement in high school but did not satisfy the Subject Requirement, you must take transferable college courses in the missing subjects, earning a "C" or better in each required course, and have an overall "C" average in all transferable coursework to be eligible to transfer.
3. If you were not eligible for admission to the University when you graduated from high school because you did not meet the Scholarship Requirement, you must:
 - A. Complete 60 semester units (or 90 quarter units) of transferable college credit with a grade point average of at least 2.4; *and*
 - B. Complete the following course pattern requirement, earning a grade of "C" or better in each course:
 - two transferable college courses (3 semester or 4-5 quarter units each) in English composition; *and*
 - one transferable college course (3 semester or 4-5 quarter units) in mathematical concepts and quantitative reasoning; *and*
 - four transferable college courses (3 semester or 4-5 quarter units each) chosen from at least two of the following subject areas: the arts and humanities, the social and behavioral sciences, and the physical and biological sciences.

Students who satisfy the Intersegmental General Education Transfer Curriculum [IGETC] prior to transferring to UC may satisfy Option 3B of the transfer admission requirements.

INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC) 2006-07

The requirements listed below are for the 2006-2007 academic year and are based upon information available at the time of catalog publication. Students may contact the Advising Center for most current information at (909) 594-5611, ext. 4293.

Completion of the IGETC will permit a student to transfer from Mt. SAC to a campus in either the University of California (UC) system or California State University (CSU) without the need, after transfer, to take additional lower-division general education courses to satisfy university general education requirements. It should be noted that completion of the IGETC is not an admission requirement for transfer to UC or CSU, nor is it the only way to fulfill the lower-division general education requirements of UC or CSU prior to transfer. Students pursuing majors that require extensive lower-division preparation may not find the IGETC option to be advantageous (i.e. Engineering, Sciences).

The requirements listed below must be completed in their entirety for full certification to the UC and CSU. For students who have completed coursework at multiple campuses, the campus of last attendance prior to transfer to

UC or CSU will certify the coursework. Mt. SAC will certify coursework from other campuses according to the IGETC list of the originating campus. Students with Advanced Placement exams which are recognized as equivalent to Mt. SAC courses listed below will obtain credit for IGETC. A minimum grade of "C" is required in each course. (A grade of "C-" is not acceptable.)

Students beginning Fall 2006 must follow 2006-2007 IGETC requirements. Courses are approved for the academic year in which they were completed. Students may obtain a copy from the Advising Center or Counseling Center.

<p>Area 1</p> <p>English Communication Select <u>one</u> course from each group:</p> <p>Group A: English Composition ENGL 1A Freshman Composition, <i>or</i> ENGL 1AH Freshman Composition – Honors</p> <p>Group B: Critical Thinking – Composition ENGL 1C Critical Thinking and Writing, <i>or</i> ENGL 1CH Critical Thinking and Writing – Honors PHIL 8 Critical Thinking PHIL 9 Critical Thinking and Logical Writing PSYC 5 Psychology of Reasoning and Problem Solving</p> <p>Group C: Oral Communication CSU requirements only SPCH 1A Public Speaking, <i>or</i> SPCH 1AH Public Speaking – Honors</p>	<p>Area 3</p> <p>Arts and Humanities Select <u>three</u> courses minimum, at least <u>one</u> course from the Arts group and <u>one</u> course from the Humanities group:</p> <p>Arts Courses: AHIS 1 Understanding the Visual Arts, <i>or</i> ARTB 1 Understanding the Visual Arts AHIS 1H Understanding the Visual Arts – Honors AHIS 3 History of Women and Gender in Art AHIS 3H History of Women and Gender in Art – Honors AHIS 4 History of Western Art: Prehistoric through Gothic AHIS 4H History of Western Art: Prehistoric through Gothic – Honors AHIS 5 History of Western Art: Renaissance through Modern AHIS 5H History of Western Art: Renaissance through Modern – Honors AHIS 6 History of Modern Art AHIS 6H History of Modern Art – Honors AHIS 11 History of African, Oceanic, and Native American Art AHIS 12 History of Pre-Columbian Art AHIS 12H History of Pre-Columbian Art – Honors DN-T 20 History and Appreciation of Dance MUS 11A Music Literature Survey MUS 11B Music Literature Survey MUS 12 History of Jazz MUS 13 Introduction to Music Appreciation MUS 13H Introduction to Music Appreciation – Honors MUS 14A World Music MUS 15 Rock Music History and Appreciation THTR 10 History of Theater Arts</p>	<p>Humanities Courses: CHIN 3 Intermediate Chinese CHIN 4 Continuing Intermediate Chinese ENGL 1B English – Introduction to Literary Types ENGL 1BH English – Introduction to Literary Types – Honors FRCH 3 Intermediate French FRCH 4 Continuing Intermediate French FRCH 5 Advanced French FRCH 6 Continuing Advanced French FRCH 60 French Culture through Cinema GERM 3 Intermediate German GERM 4 Intermediate German * HIST 1 History of the United States HIST 3 History of World Civilization HIST 3H History of World Civilization – Honors HIST 4 History of World Civilization HIST 4H History of World Civilization – Honors * HIST 7 History of the United States * HIST 7H History of the United States – Honors * HIST 8 History of the United States * HIST 8H History of the United States – Honors HIST 10 History of Asia HIST 11 History of Asia HIST 19 History of Mexico * HIST 30 History of the African American * HIST 31 History of the African American HIST 35 History of Africa * HIST 36 Women in American History HIST 39 California History * HIST 40 History of the Mexican American HUMA 1 The Humanities ITAL 3 Intermediate Italian ITAL 4 Continuing Intermediate Italian ITAL 5 Advanced Italian ITAL 6 Continuing Advanced Italian ITAL 60 Italian Culture through Cinema</p>	<p>JAPN 3 Intermediate Japanese JAPN 4 Continuing Intermediate Japanese JAPN 5 Advanced Japanese LIT 1 Early American Literature LIT 2 Modern American Literature LIT 6A Survey of English Literature LIT 6B Survey of English Literature LIT 10 Survey of Shakespeare LIT 11A World Literature LIT 11B World Literature LIT 14 Introduction to Modern Poetry LIT 15 Introduction to Cinema LIT 20 African American Literature LIT 25 Contemporary Mexican American Literature LIT 33 Images of Women in Literature LIT 35 Science Fiction and Fantasy Survey LIT 36 Introduction to Mythology LIT 46 The Bible as Literature: Old Testament LIT 47 The Bible as Literature: New Testament PHIL 3 Logic in Practice PHIL 5 Introduction to Philosophy PHIL 5H Introduction to Philosophy – Honors PHIL 12 Ethics PHIL 12H Ethics – Honors PHIL 15 Major World Religions PHIL 15H Major World Religions – Honors PHIL 20A History of Western Philosophy PHIL 20B History of Western Philosophy SIGN 202 American Deaf Culture SPAN 3 Intermediate Spanish SPAN 3H Intermediate Spanish – Honors SPAN 4 Continuing Intermediate Spanish SPAN 5 Advanced Spanish SPAN 6 Continuing Advanced Spanish SPAN 25 Spanish Literature</p>
<p>Mathematical Concepts and Quantitative Reasoning Select <u>one</u> course from:</p> <p>MATH 110 Elementary Statistics MATH 110H Elementary Statistics – Honors MATH 120 Finite Mathematics MATH 130 College Algebra MATH 140 Calculus for Business MATH 160 Precalculus Mathematics MATH 180 Calculus and Analytic Geometry MATH 181 Calculus and Analytic Geometry MATH 280 Calculus and Analytic Geometry MATH 285 Linear Algebra and Differential Equations PSYC 10 Statistics for the Behavioral Sciences</p>			

CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION REQUIREMENTS 2006-07

Area 4

Social and Behavioral Sciences

Select three courses total from a minimum of two different subject areas:

- ANTH 3 Archaeology
- ANTH 5 Principles of Cultural Anthropology, *or*
- ANTH 22 General Cultural Anthropology
- BUSC 1A Principles of Economics: Macroeconomics
- BUSC 1AH Principles of Economics: Macroeconomics – Honors
- BUSC 1B Principles of Economics: Microeconomics
- BUSC 1BH Principles of Economics: Microeconomics – Honors
- GEOG 2 Human Geography
- GEOG 2H Human Geography – Honors
- GEOG 8 The Urban World
- GEOG 30 Geography of California
- * POLI 1 Political Science
- * POLI 1H Political Science – Honors
- POLI 5 Political Science Theory
- POLI 9 Introduction to International Relations
- * POLI 25 Politics of the Mexican American
- * POLI 35 African American Politics
- PSYC 1A Introduction to Psychology
- PSYC 1AH Introduction to Psychology – Honors
- PSYC 19 Abnormal Psychology
- PSYC 25 The Psychology of Women
- SOC 1 Sociology
- SOC 1H Sociology – Honors
- SOC 2 Sociology
- SOC 2H Sociology – Honors
- SOC 4 Introduction to Gerontology
- SOC 5 Introduction to Criminology
- SOC 20 Sociology of Ethnic Relations
- SOC 20H Sociology of Ethnic Relations – Honors

Physical and Biological Sciences

Choose two courses, one physical and one biological science, at least one must include a laboratory. Laboratory must be a corresponding section to the lecture course taken. Laboratory courses are underlined.

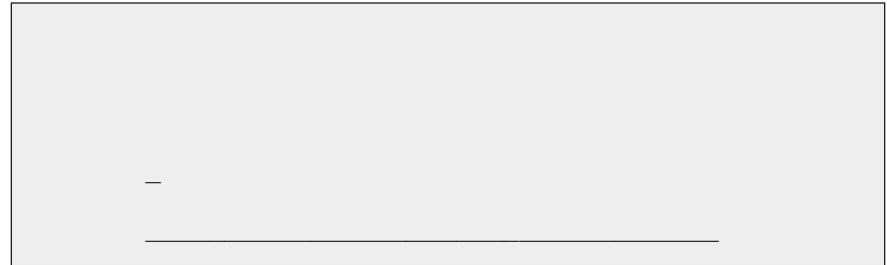
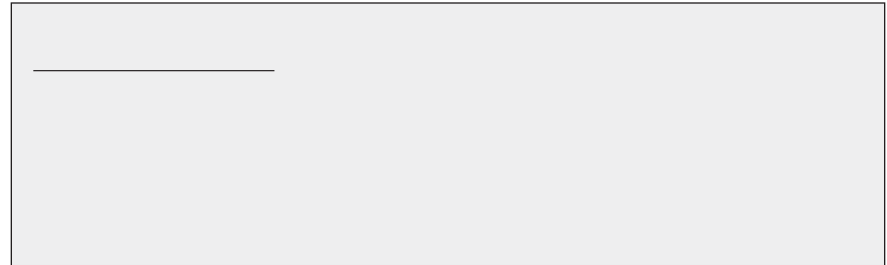
Physical Science:

- ASTR 5 Introduction to Astronomy
- ASTR 5L Astronomical Observing Laboratory
- CHEM 10 Chemistry for Allied Health Majors
- CHEM 20 Introductory Organic and Biochemistry
- CHEM 50 General Chemistry I

- CHEM 50H General Chemistry I – Honors
- CHEM 51 General Chemistry II
- GEOG 1 Elements of Physical Geography
- GEOG 1H Elements of Physical Geography – Honors
- GEOG 1L Physical Geography Laboratory
- GEOG 1LH Physical Geography Laboratory – Honors
- GEOL 1 Physical Geology
- GEOL 8 Earth Science
- GEOL 8H Earth Science – Honors
- GEOL 8L Earth Science Laboratory
- GEOL 9 Environmental Geology
- GEOL 13 Evolution of the Earth
- OCEA 10 Introduction to Oceanography
- OCEA 10H Introduction to Oceanography – Honors
- OCEA 10L Introduction to Oceanography Laboratory
- PHYS 1 Physics
- PHYS 2AG General Physics
- PHYS 2BG General Physics
- PHYS 4A Engineering Physics
- PHYS 4B Engineering Physics
- PHYS 4C Engineering Physics

Biological Science:

- ANAT 10A Introductory Human Anatomy
- ANAT 10B Introductory Human Physiology
- ANAT 35 Human Anatomy
- ANAT 36 Human Physiology
- ANTH 1 Biological Anthropology
- ANTH 1H Biological Anthropology – Honors
- ANTH 1L Biological Anthropology Laboratory
- BIOL 1 General Biology
- BIOL 2 Plant and Animal Biology
- BIOL 4 Biology for Majors
- BIOL 4H Biology for Majors – Honors
- BIOL 6 Humans and the Environment
- BIOL 6L Humans and the Environment Laboratory
- BIOL 8 Cell and Molecular Biology
- BIOL 20 Marine Biology
- BIOL 21 Marine Biology Laboratory
- MICR 1 Principles of Microbiology
- MICR 22 Microbiology
- PSYC 1B Biological Psychology



United States History:

- HIST 1 History of the United States
- HIST 7 History of the United States
- HIST 7H History of the United States – Honors
- HIST 8 History of the United States
- HIST 8H History of the United States – Honors
- HIST 30 History of the African American
- HIST 31 History of the African American
- HIST 36 Women in American History
- HIST 40 History of the Mexican American

American Institutions:

- POLI 1 Political Science
- POLI 1H Political Science – Honors
- POLI 25 Politics of the Mexican American
- POLI 35 African American Politics

Notes:

UC limits transfer credit for some courses. Students may review the UC Transfer Course Agreement (TCA) with an educational advisor or counselor in the Student Services Center. Students must see an educational advisor or counselor for preliminary IGETC certification. For IGETC certification, the course must be on the list during the year taken. Students from non-English speaking countries should see an educational advisor or international student counselor for language proficiency equivalences.

IGETC AFTER TRANSFER PARTIAL CERTIFICATION OF THE INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC)

The IGETC provides a pattern of courses that fulfills the transfer general education requirements at both the University of California (UC) and the California State University (CSU). Each California community college offers a complete set of courses that satisfies IGETC. If you attend more than one community college, the campus you attend just prior to transfer will certify your completion of IGETC, including courses taken at other colleges. The IGETC pattern is not recommended for all majors. See your counselor/educational advisor for advice and more complete information on the IGETC certification.

If, for **good cause**, you are unable to complete one or two IGETC courses*, you may be **eligible to complete IGETC after transferring** (*). Typical situations which constitute good cause for not completing one or two IGETC courses are illness, unavailable or canceled classes, military service and unexpected hardships, such as family or employment problems, **experienced in the final term before transfer.**

You may petition only during the final semester before transferring. If your petition for partial certification of IGETC is approved, you will be able to complete IGETC in one of the following ways:

1. Take a certified IGETC course, in the area to be completed, at any California community college at a time that does not require concurrent enrollment, such as during summer session.
2. Complete the requirement at a California community college while concurrently enrolled at the UC or CSU. You will be subject to the UC or CSU campus rules regarding concurrent enrollment, so this option may not be available at your campus.
3. Take a comparable course at the UC or CSU campus to which you will be transferring. This option is at the discretion of each campus, so it may not be a choice available to you.

You will be expected to complete IGETC before the beginning of the second full year of enrollment at your UC or CSU campus. Check with your campus counselor/educational advisor after you transfer for more information, including which options are available and which UC or CSU courses may be comparable to the IGETC courses remaining to be completed.

*Area 1, English Communication and Area 2, Mathematics must be completed prior to transferring. To petition for IGETC after transfer see an educational advisor in the Advising Center or a counselor in the Counseling Department.

CALIFORNIA INDEPENDENT COLLEGES AND UNIVERSITIES

California's fully-accredited independent colleges and universities provide many options at the undergraduate, graduate, and professional levels for students planning to continue their education beyond the community college.

Although admission requirements vary and are listed in the catalogs of the various universities and colleges, students who transfer to independent colleges and universities are given credit for most, if not all, of their community college work.

Financial aid may be a primary factor in making it possible for a student to attend an independent college or university. There are many forms of financial assistance available, such as federal, state, institutional, and private aid. Students should apply for scholarships, grants, loans, and work-study awards from all possible sources. All independent colleges urge, and some require, that all undergraduates who are California residents apply for a Cal Grant. Financial aid applications are available in January for the following academic year and may be obtained from a campus financial aid office. Filing instructions and deadlines are indicated on the form. Contact the individual campuses for details and assistance in completing the necessary forms.

The independent colleges and universities include:

- Alliant International University
- American Academy of Dramatic Arts Los Angeles
- Art Center College of Design
- Azusa Pacific University
- Biola University
- California Baptist University
- California College of the Arts
- California Institute of Technology (Cal Tech)
- California Institute of the Arts
- California Lutheran University
- Chapman University
- Charles R. Drew University of Medicine and Science
- Claremont Graduate University
- Claremont McKenna College
- Cogswell Polytechnical College
- Concordia University
- DeVRY Institute of Technology
- Dominican University of California
- Fielding Graduate University
- Fresno Pacific University
- Golden Gate University
- Harvey Mudd College
- Holy Names College
- Hope International University
- Humphreys College
- John F. Kennedy University
- Keck Graduate Institute
- La Sierra University
- Laguna College of Art and Design
- Loma Linda University
- Loyola Marymount University
- Marymount College
- The Master's College
- Menlo College
- Mills College
- Mount St. Mary's College
- National University
- New College of California
- Notre Dame de Namur University
- Occidental College
- Otis College of Art and Design
- Pacific Graduate School of Psychology
- Pacific Oaks College
- Pacific Union College
- Patten College
- Pepperdine University
- Phillips Graduate Institute
- Pitzer College
- Point Loma Nazarene University
- Pomona College
- Saint Mary's College of California
- Samuel Merritt College
- San Diego Christian College
- San Francisco Art Institute
- San Francisco Conservatory of Music
- Santa Clara University
- Saybrook Graduate School and Research Center
- Scripps College
- Simpson College
- Southern California College of Optometry
- Southern California University of Health Sciences
- Stanford University
- Thomas Aquinas College
- Touro University California
- University of Judaism
- University of La Verne
- University of Redlands
- University of San Diego
- University of San Francisco
- University of Southern California
- University of the Pacific
- University of West Los Angeles
- Vanguard University of Southern California
- Western University of Health Sciences
- Westmont College
- Whittier College
- William Jessup University
- Woodbury University

For more information on California Independent Colleges and Universities see an educational advisor in the Advising Center or counselor in the Counseling Department. You may also obtain information from the aiccu.edu.

Section 10

Course Descriptions



DEFINITIONS OF TERMS**CSU Transfer**

Courses designated "CSU" are baccalaureate level and will transfer to all of the California State Universities and count toward graduation at Mt. San Antonio College.

CSU/UC Cross Enrollment Program

California residents students at Mt. San Antonio College may enroll in one undergraduate course per term at any CSU or UC campus provided the student has met the course prerequisites and approval is granted by both Mt. SAC and the university. To cross-enroll, students must: have completed at least one term at Mt. SAC; have a 2.0 grade point average (GPA) in transferable course work; and be enrolled in at least six units at Mt. SAC. A \$10.00 fee plus any material/laboratory fees associated with the course may be charged. To apply for the CSU/UC Cross Enrollment Program, students must complete the CSU/UC Cross Enrollment application; these forms are available in the Advising Center.

UC Transfer/UC Credit Limitation

Courses designated "UC" are baccalaureate level and will transfer to all of the University of California campuses and California State Universities, and will count toward graduation at Mt. San Antonio College. UC limits credit for some courses. Students contemplating transfer to UC should consult with an educational advisor and review the UC Transfer Course Agreement (TCA) for course credit limitations and changes.

UC Credit for Physical Education Activity Courses

A maximum of four semester units of UC credit will be awarded for Physical Education Activity courses. Courses of a vocational nature such as Fire or Police Academy Protection Preparation or Aerobic Instructor Training will not be awarded UC credit.

UC Credit Pending

Credit for Special Projects courses are given only after a review of the topic for the course by the enrolling UC campus. This usually occurs after transfer and may include recommendations from faculty. The UC will not give credit for special projects courses in Journalism, Photography, Health, Business Administration, Architecture, Administration of Justice (Criminology) or Library Departments because of the credit restrictions in those areas.

CAN (California Articulation Number System)

The California Articulation Number (CAN) System is a statewide numbering system of independent twin course numbers assigned by local colleges. A CAN number signals that participating California colleges and universities have determined that courses offered by other campuses are equivalent in content and scope to courses offered on their own campuses, regardless of their unique titles or local identifying numbers. Thus, if a schedule of classes or catalog lists a course bearing a CAN number, students on one campus can be assured that it will be accepted in lieu of the comparable CAN course noted in the catalog or schedule of classes of another campus. For example, CAN ECON 2 on one campus will be accepted as meeting the requirement of the designated CAN ECON 2 course on other participating community college or university campuses.

The CAN numbering system is obviously useful for students attending more than one community college and is applied to many of the transferable, lower division courses students need as preparation for their intended major. Because these course requirements may change, however, and because courses are continually being redefined, qualified, or deleted from the CAN database, students should always check with an educational advisor in The Advising Center or counselor in the Counseling Department to determine how CAN-designated courses fit into their educational plans for transfer. Students should consult the ASSIST database at www.assist.org for specific information on course agreements. The college staff will help students interpret this information.

Eligibility

In listing a prerequisite for enrolling in a course, an "eligibility" may also be listed. An eligibility requirement specifies the course level the student must qualify to enroll in—not that the course has to be completed prior to enrollment. For example, the prerequisite "eligibility for English 68" requires that the student must qualify to enroll in English 68 in order to enroll in the particular course.

Prerequisite

A prerequisite is a course which must be taken as preparation for enrolling in another course.

Corequisite

A corequisite is a course which is required to be taken simultaneously in order to enroll in another course.

Advisory

An advisory prerequisite is a course which is advised, but not required, to be taken either before or in conjunction with enrollment in a course.

Pre-Collegiate Basic Skills

Courses designated "Pre-collegiate" develop basic skills in reading, writing, and computation. They will neither count toward graduation from Mt. San Antonio College nor transfer to four-year colleges and universities.

Non-Degree Credit

Courses designated "Non-Degree Credit" are college level classes which are neither a part of an associate degree or certificate program nor transferable to four-year colleges and universities.

Degree Appropriate

Courses designated "Degree Appropriate" are college-level classes which are a part of an associate degree or certificate program.

Physical Education Activity

Physical education activity units consist of a combination of lecture and activity hours. This includes all PE classes except those having a prefix of PE.

UC Credit for Physical Education Activity Courses

A maximum of four semester units of UC credit will be awarded for Physical Education activity courses. Courses of a vocational nature such as Fire or Police Academy Protection Preparation or Aerobic Instructor Training will not be awarded UC credit.



Course Descriptions

COURSE PREFIX LISTING					
ADJU Administration of Justice: Law Enforcement	109	CISB Computer Information Systems: Beginning	143	MEDI Medical Terminology	179
AERO Aeronautics	109	CISD Computer Information Systems: Database	143	MENT Mental Health/Psychiatric Technician	179
AGAB Agriculture: Agri-Business	110	CISM Computer Information Systems: Management	144	METO Meteorology	179
AGHE Agriculture: Animal Health Technology	110	CISN Computer Information Systems: Networking	144	MICR Microbiology	180
AGAN Agriculture: Animal Science-General	111	CISP Computer Information Systems: Programming	145	MUS Music	180
AGFR Agriculture: Forestry, Conservation	111	CISS Computer Information Systems: Security	145	NURS Nursing	183
AGAG Agriculture: General Subjects	111	CISW Computer Information Systems: Web Applications	146	NF Nutrition and Food	185
AGLI Agriculture: Livestock Production	112	CSCI Computer Science	146	OCEA Oceanography	185
AGOR Agriculture: Ornamental Horticulture	112	CORS Correctional Sciences	147	PHIL Philosophy	186
AGPE Agriculture: Pet Science	115	COUN Counseling	147	PHOT Photographics	186
AIRC Air Conditioning and Refrigeration	115	DNCE Dance: Activity	148	PE-L Physical Education: Adaptive	187
AIRT Air Traffic Control	116	DN-T Dance: Theory	152	PE-A Physical Education: Aquatics	188
AIRM Aircraft Maintenance Technology	117	DSPS Disabled Students	152	PE-X Physical Education: Athletics	189
AD Alcohol Drug Counseling	118	EDUC Education	153	PE-F Physical Education: Fitness	191
AMLA American Language	119	ELEC Electronics	153	PE-I Physical Education: Individual	193
ANAT Anatomy & Physiology	120	ECWT Electronic Cabling and Wiring Technology	155	PE-S Physical Education: Team Sports	195
ANTH Anthropology	120	ELMA Electronics Mathematics	155	PE Physical Education: Theory	197
ARCH Architectural Technology	121	EMS Emergency Medical Service	155	PHSC Physical Science	198
AHIS Art History	122	EMT Emergency Medical Technician	156	PHTH Physical Therapy	198
ARTC Art: Advertising Design Graphics	123	ENGR Engineering	156	PAP Physician Assistant Preparatory	198
ANIM Art: Animation	124	EDT Engineering Design Technology	156	PHYS Physics	199
ARTB Art: Basic Studio Arts	126	ENGL English	158	POLI Political Science	199
ARTG Art: Gallery & Professional Practices	126	FCS Family and Consumer Sciences	158	PSYC Psychology	200
ARTZ Art: Special Studio Arts	126	FASH Fashion Merchandising and Design	159	R-TV Radio-Television	201
ARTS Art: Three-Dimensional Studio Arts	126	FIRE Fire Technology	161	RAD Radiologic Technology	203
ARTD Art: Two-Dimensional Studio Arts	127	FRCH French	163	READ Reading	204
ASTR Astronomy	128	GEOG Geography	164	RESD Respiratory Therapy	205
BIOL Biology	129	GEOL Geology	165	SL Service Learning	205
BTNY Botany	130	GERM German	166	SIGN Sign Language, Interpreting	206
BUSA Business: Accounting	130	HIST History	166	SOC Sociology	207
BUSC Business: Economics	131	HT Histotechnology	168	SPAN Spanish	208
BUSL Business: Law	131	HRM Hospitality and Restaurant Management	168	SPCH Speech	208
BUSM Business: Management	133	HUMA Humanities	170	STDY Study Techniques	210
BUSO Business: Office Technology	134	INSP Inspection and Estimating, Building	170	STGV Student Government	210
BUSR Business: Real Estate	134	ID Interior Design	170	SURV Surveying	210
BUSS Business: Sales, Merchandising & Marketing	135	ITAL Italian	171	THTR Theater Arts	210
CHMT Chemical Technology	136	JAPN Japanese	172	TRAN Transportation	211
CHEM Chemistry	136	JOUR Journalism	172	TUTR Tutor Training	211
CHLD Child Development	137	LEAD Leadership	174	WATR Water Technology	211
CHIN Chinese	139	LERN Learning Assistance Services	174	WELD Welding	212
CNET Computer and Networking Technology	139	LIBR Library and Instructional Media	174		
COMP Computer Applications	140	LIT Literature	174		
GRAP Computer Graphics	141	MFG Manufacturing Technology	175		
CISX Computer Information Systems: Auxilliary	142	MATH Mathematics	176		

ADMINISTRATION OF JUSTICE: LAW ENFORCEMENT		
ADJU 1 — The Administration of Justice System (CAN AJ 2) 54 hours of lecture. History and philosophy of the justice system, subsystems, roles, relationships and theories of crime causation and correction.	3 Units Degree Appropriate, CSU, UC	
ADJU 2 — Principles and Procedures of the Justice System 54 hours of lecture. 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.	3 Units Degree Appropriate, CSU	
ADJU 3 — Concepts of Criminal Law (CAN AJ04) 54 hours of lecture. Elements of crimes against persons, property, and the state as recognized in the Penal Code and General Laws of California. Content is studied using the perspective of the law enforcement officer.	3 Units Degree Appropriate, CSU, UC	
ADJU 4 — Legal Aspects of Evidence 54 hours of lecture. Comprehensive exploration of evidence; admissibility, competency of witnesses, principles of privileged communications, hearsay rule and its exceptions, and the general procedure to be followed in the collection and preservation of evidence.	3 Units Degree Appropriate, CSU	
ADJU 5 — Community Relations 54 hours of lecture. <i>Prerequisite: Eligibility for English 68</i> Community problems and policing. Focus on service image, diversity, human relations, crises and confrontations with the public.	3 Units Degree Appropriate, CSU, UC	
ADJU 6 — Concepts of Enforcement Services 54 hours of lecture. Responsibilities, techniques and methods of police patrol with emphasis on the basic knowledge required in handling common police occurrences.	3 Units Degree Appropriate	
ADJU 13 — Concepts of Traffic Services 54 hours of lecture. A study of traffic management, collision reconstruction, collision factors including law violations and human factors, collision evidence, traffic enforcement techniques and specialization in traffic management. Emphasis is placed on service to the motoring public.	3 Units Degree Appropriate	
ADJU 20 — Principles of Investigation Spring Semester 54 hours of lecture. <i>Prerequisite: Eligibility for ENGL 68</i> Fundamentals of investigation; 4th Amendment issues including crime scene search and recording; collection and preservation of physical evidence; modus operandi; scientific aids; sources of information; interviews and interrogation; follow up and case preparation.	3 Units Degree Appropriate, CSU	
ADJU 38 — Narcotics Investigation 54 hours of lecture. <i>Prerequisite: Eligibility for ENGL 68</i> Investigation techniques for drug enforcement. Drug effects, use of informants, amendment issues, and handling of evidence.	3 Units Degree Appropriate	
ADJU 59 — Gangs in the Community/Corrections 54 hours of lecture. <i>Advisory: Eligibility for ENGL 68, ADJU 1</i> 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.	3 Units Degree Appropriate, CSU	
ADJU 68 — Administration of Justice Report Writing 54 hours of lecture. Techniques for proper documentation of crime reports and related law enforcement records. Use of simulations and role-playing.	3 Units Degree Appropriate	
ADJU 74 — Vice Control 54 hours of lecture. <i>Prerequisite: Eligibility for ENGL 68</i> 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.	3 Units Degree Appropriate	
AERONAUTICS		
AERO 23 — Primary Pilot Ground School 72 hours of lecture. Basic aerodynamics, aircraft performance, Federal Aviation Regulations, aviation weather factors, and cross-country navigation procedures; provides introductory material on radio navigation, aeromedical factors, and radio communications procedures. Meets the preparation requirements for the FAA Private Pilot computerized knowledge examination.	4 Units Degree Appropriate, CSU	
AERO 24 — Navigation 54 hours of lecture. <i>Advisory: AERO 23</i> Basic dead reckoning navigation procedures. Aeronautical computers and their application in cross-country flying. Use of radio navigation aids, flightplanning, flight directors, global positioning system, and electronic flight instrumentation systems.	3 Units Degree Appropriate, CSU	
AERO 25 — Commercial Pilot Ground School 54 hours of lecture. <i>Advisory: AERO 23</i> 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.	3 Units Degree Appropriate, CSU	
AERO 26 — Aviation Weather 54 hours of lecture. A basic study of weather elements, the atmosphere, weather mechanics, weather disturbances, weather analysis and forecasts. Evaluates aviation weather reports and forecasts.	3 Units Degree Appropriate, CSU	
AERO 27 — Aviation Safety and Human Factors 54 hours of lecture. <i>Advisory: AERO 23</i> Evaluation and analysis of factors which lead to preventable aircraft accidents. Includes the study of aircraft accident cause factors, with emphasis on human behavior as it relates to the environment of the pilot and air traffic controller.	3 Units Degree Appropriate, CSU	
AERO 28 — Aircraft and Engines 54 hours of lecture. <i>Advisory: AERO 23</i> 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.	3 Units Degree Appropriate, CSU	
AERO 29 — Federal Aviation Regulations 36 hours of lecture. Federal Aviation Regulations which pertain to pilot certification, aircraft maintenance, general operating rules; air traffic control practices and procedures; reporting of aircraft accidents.	2 Units Degree Appropriate, CSU	
AERO 30 — Instrument Ground School 54 hours of lecture. <i>Advisory: AERO 23 and AERO 26 taken prior or concurrently</i> Instrument Flight Rules, Air Traffic Control and communications procedures, air navigation radio aids, instrument landing systems, flight instruments, aircraft performance, aeronautical publications, instrument approach procedures, IFR cross-country navigation, and instrument weather. Meets the preparation requirements for the FAA Instrument Pilot computerized knowledge exam.	3 Units Degree Appropriate, CSU	
AERO 40 — Flight (May be taken four times for credit.) (May be taken for Credit/No Credit only.) 18 hours of lecture. <i>Advisory: AERO 23 taken prior or concurrently</i> Flight training career preparation, including evaluation of locally available flight training options, university transfer preparation, and flight career options involving airline preparation, corporate aviation, charter operations, cargo airline careers, and military flight training. Students who repeat this course will improve skills through further instruction and practice.	1 Unit Degree Appropriate	

Course Descriptions

AERO 40L — Flight Laboratory **1 Unit**
 (May be taken four times for credit.) Degree Appropriate
 (May be taken for Credit/No Credit only.)
 54 hours of lab.
Corequisite: AERO 40
Advisory: AERO 23 taken prior or concurrently
 Primary pilot training and the development of specialized skills. Students individually schedule training lessons at a flight school of their choice, under the supervision of an FAA certificated flight instructor. Students must complete a minimum of 15 hours of flight time, including three hours of dual instruction. Students who repeat this course will improve skills through further instruction and practice.

AERO 41 — Basic Flight Simulator Laboratory **.5 Unit**
 (May be taken for Credit/No Credit only.) Degree Appropriate
 27 hours of lab.
Advisory: AERO 25
 Flight simulator training in the iGATE PC-ATD simulator in preparation for the instrument rating. Full and partial panel airwork, holding patterns, VOR and ADF orientation, and instrument approach procedures.

AERO 42 — Advanced Flight Simulator Laboratory **.5 Unit**
 (May be taken for Credit/No Credit only.) Degree Appropriate
 27 hours of lab.
Advisory: AERO 30 or AERO 41
 Flight simulator training in the ATC-810 simulator in preparation for the multi-engine rating and advanced instrument flight. Emergency procedures for multi-engine aircraft and high performance airplanes.

AERO 45A — Multi-Engine Turbine Aircraft Operations **3 Units**
 54 hours of lecture. Non-Degree Credit
Advisory: Private Pilot's Certificate and AERO 30 or Instrument Rating
 An introduction to the design features and operational characteristics of a selected multi-engine turbine aircraft utilized in regional airline operations and corporate aviation, with emphasis on aircraft and engine systems.

AERO 58 — Flight Instructor Ground School **3 Units**
 54 hours of lecture. Non-Degree Credit
Advisory: AERO 25 and AERO 30 or Commercial Pilot Certificate with Instrument Rating
 The learning process, basic teaching principles, and the application of these principles in teaching student pilots. Analysis of flight maneuvers and instruments. Prepares students for the FAA computerized knowledge tests for Flight Instructors.

AGRICULTURE: AGRI-BUSINESS

AGAB 20 — Microcomputer Applications in Agriculture **3 Units**
 (CAN AG 2) Degree Appropriate, CSU, UC
 54 hours of lecture.
Advisory: Eligibility for ENGL 68
 Use of word processing, data base, spreadsheets, and graphic programs for students interested in agricultural business, nursery and landscape, equipment, and farm management.

AGRICULTURE: ANIMAL HEALTH TECHNOLOGY

AGHE 54 — Veterinary Office Procedures **3 Units**
 54 hours of lecture. Degree Appropriate
 Includes veterinary hospital records, client relations, medical terminology, filing of governmental reports, legal responsibilities of animal health technicians and application of veterinary medical ethics.

AGHE 60 — Medical Nursing and Animal Care **4 Units**
 54 hours of lecture. Degree Appropriate, CSU
 54 hours of lab.
Prerequisite: AGLI 95 and formal admittance to the Registered Veterinary Technology program

Animal examination for health and disease conditions in the animal hospital, including sanitation, administration of medicine, emergency treatment, therapeutic techniques, dental prophylaxis, venipuncture, electrocardiology, application of casts, splints and other appliances. Includes diseases, their causes and effects, and immunology of animals.

AGHE 61 — Surgical Nursing **4 Units**
 54 hours of lecture. Degree Appropriate, CSU
 54 hours of lab.
Prerequisite: AGHE 60
 Surgical preparation, surgical assistance, post-operative care, administration and monitor anesthesia, dentistry, CPR, sterilization and the maintenance of a sterile environment.

AGHE 62A — Clinical Pathology **4 Units**
 Fall Semester Degree Appropriate, CSU
 54 hours of lecture.
 54 hours of lab.
Prerequisite: AGLI 95
 Introduces students to the expansive field of clinical pathology. Topics include hematology, clinical chemistries, internal parasites, immunology and serology.

AGHE 62B — Clinical Pathology **4 Units**
 Spring Semester Degree Appropriate, CSU
 54 hours of lecture.
 54 hours of lab.
Prerequisite: AGLI 95
 Introduces students to the expansive field of clinical pathology. Topics include bacteriology, clinical chemistry, urinalysis, external parasites and cytology.

AGHE 64 — Veterinary Pharmacology **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
Prerequisite: Formal admittance to Advanced Class Status in the Registered Veterinary Technology Program, and completion of MATH 51 or MATH 51B or AGAG91

Basic concepts in pharmacological chemistry. Pharmaceuticals and biologics commonly used in the maintenance of animal health. Includes generic terminology, abbreviations for prescriptions, labeling requirements, state and federal laws, classification of materials, weights and measures, drug dosage flow rates, pharmacological mathematics and the metric system, side effects and drug interactions.

AGHE 65 — Veterinary Radiography **2 Units**
 18 hours of lecture. Degree Appropriate, CSU
 54 hours of lab.
Prerequisite: AGLI 95 and formal admittance to the Registered Veterinary Technology Program

Basic concepts and skills of veterinary positioning of canine, feline, avian, reptilian species, and livestock for radiography; processing of the radiograph; radiation safety; basic technique and instrumentation; contrast radiography and ultrasound imaging. Emphasizes performance of x-ray procedures for the veterinary practitioner.

AGHE 79 — Laboratory Animal Medicine and Care **3 Units**
 36 hours of lecture. Degree Appropriate, CSU
 54 hours of lab.
 Laboratory animal medicine, care and procedures, rules and regulations governing laboratory animals.

AGHE 83A — Work Experience in Animal Health **1 Unit**
 (May be taken four times for credit.) Degree Appropriate
 (May be taken for Credit/No Credit only.)
 75 hours of lab.
Prerequisite: Formal admittance and enrollment in the Registered Veterinary Technology Program. Compliance with Work Experience regulations as designated in the College Catalog

This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AGHE 83B — Work Experience in Animal Health **2 Units**
 (May be taken four times for credit.) Degree Appropriate
 (May be taken for Credit/No Credit only.)
 150 hours of lab.
Prerequisite: Formal admittance and enrollment in the Registered Veterinary Technology Program. Compliance with Work Experience regulations as designated in the College Catalog

This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AGHE 84A — Applied Animal Health Procedures **1 Unit**
 Fall Semester Degree Appropriate
 54 hours of lab.

Fall field study course in the collection, handling, and analysis of feces, urine, and blood samples of pet and domestic animals. Practical experience in applied clinical procedures and techniques, including treatments and minor surgical procedures with domestic farm animals. Experiences with animals will vary due to seasonal changes and different husbandry practices during fall and spring.

AGHE 84B — Applied Animal Health Procedures **1 Unit**
 Spring Semester Degree Appropriate
 54 hours of lab.

Spring field study course in the collection, handling and analysis of feces, urine and blood samples of pet and domestic animals. Practical experience in applied clinical procedure and techniques, including treatments and minor surgical procedures with school domestic farm animals. Experiences with animals will vary due to seasonal changes and different husbandry practices during fall and spring.

AGHE 85 — Seminar in Registered Veterinary Technology **1 Unit**
 18 hours of lecture. Degree Appropriate
Prerequisite: Completion of the Registered Veterinary Technology program or consent of instructor.

Group study course designed to help students with success on their national and state registration examinations. Course includes exposure to the types of questions encountered in registration examinations, question analysis strategies, and review of important anatomical, physiological, and nursing concepts.

AGRICULTURE: ANIMAL SCIENCE – GENERAL

AGAN 1 — Animal Science **3 Units**
 (CAN AG 6) Degree Appropriate, CSU, UC
 54 hours of lecture.

Fundamental problems and essential concepts of animal production. Includes the study of the types of domestic animals and their utilization by humans.

AGAN 2 — Animal Nutrition **3 Units**
 (CAN AG 12) Degree Appropriate, CSU, UC
 54 hours of lecture.

Composition of feeds and their utilization by domestic animals, including digestive physiology, animal assessment, feed appraisal and compiling of rations.

AGAN 51 — Animal Handling and Restraint **3 Units**
 36 hours of lecture. Degree Appropriate, CSU
 54 hours of lab.

Methods of proper handling for large and small animals, including chemical and physical techniques of restraint.

AGAN 94 — Animal Breeding **3 Units**
 54 hours of lecture. Degree Appropriate

The science of animal breeding, including fundamentals of inheritance, reproduction and breeding systems for domestic animals. Artificial insemination, embryo manipulation and current topics in reproductive biotechnology will also be included.

AGRICULTURE: FORESTRY, CONSERVATION

AGFR 20 — Conservation of Natural Resources **3 Units**
 54 hours of lecture. Degree Appropriate, CSU, UC

Prerequisite: Eligibility for ENGL 68.
 Concepts of conservation biology for natural resources, including biogeography, biodiversity and extinction, environmental law, and conservation organizations. Emphasis on temperate forest, tropical forest, desert, and grassland ecosystems.

AGRICULTURE: GENERAL SUBJECTS

AGAG 1 — Food Production, Land Use and Politics – A Global Perspective **3 Units**

54 hours of lecture. Degree Appropriate, CSU, UC
 Surveys the world's food producing systems in terms of economic, political and cultural forces. Emphasizes ethical, sustainable food producing agriculture.

AGAG 59 — Work Experience in Agriculture **1 Unit**
 (May be taken four times for credit.) Degree Appropriate
 (May be taken for Credit/No Credit only.)
 75 hours of lab.

Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog

This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AGAG 60 — Work Experience in Agriculture **2 Units**
 (May be taken four times for credit.) Degree Appropriate
 (May be taken for Credit/No Credit only.)
 150 hours of lab.

Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog

This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AGAG 61 — Work Experience in Agriculture **3 Units**
 (May be taken four times for credit.) Degree Appropriate
 (May be taken for Credit/No Credit only.)
 225 hours of lab.

Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog

This course is designated to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AGAG 62 — Work Experience in Agriculture **4 Units**
 (May be taken four times for credit.) Degree Appropriate
 (May be taken for Credit/No Credit only.)
 300 hours of lab.

Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog

This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AGAG 91 — Agricultural Calculations **3 Units**
 54 hours of lecture. Degree Appropriate

Prerequisite: Eligibility for MATH 51
 Calculating the proper rates of application of veterinary drugs, fertilizers, irrigation water, farm chemicals and pesticidal materials. Practical field work in calibrating application equipment, plotting production rates and feed conversion, determining proper concentrations and dilutions and standardizing butterfat and solids non-fat.

Course Descriptions

AGAG 99 — Special Projects in Agriculture **2 Units**
(May be taken four times for credit.) Degree Appropriate, CSU
(May be taken for Credit/No Credit only.)
36 hours of lecture.
In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to insure that proficiencies are enhanced.

AGRICULTURE: LIVESTOCK PRODUCTION

AGLI 12 — Exotic Animal Management **3 Units**
54 hours of lecture. Degree Appropriate
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**
(CAN AG 24) Degree Appropriate, CSU
36 hours of lecture.
54 hours of lab.
A study of the various types of swine enterprises and the ways and means of entering them. Swine management, including handling, feeding, breeding, farrowing, butchering, and marketing. Practical skills are taught using the college farm.

AGLI 16 — Horse Production **4 Units**
(CAN AG 26) Degree Appropriate, CSU, UC
Fall Semester
54 hours of lecture.
54 hours of lab.
Selection, utilization, and management of the light horse emphasizing recreational aspects of the modern horse. Laboratory work includes experience in the care of horse and tack.

AGLI 17 — Sheep Production **3 Units**
(CAN AG 22) Degree Appropriate, CSU
Spring Semester
36 hours of lecture.
54 hours of lab.
A study of the various types of sheep enterprises and the ways and means of entering them. Sheep management, sheep handling, feeding, shearing, breeding, lambing, and marketing. Practical skills are taught on the school farm and sheep farms in the area.

AGLI 18 — Horse Ranch Management **4 Units**
54 hours of lecture. Degree Appropriate, CSU
54 hours of lab.
Advisory: AGLI 16
Skills and knowledge to work on or manage a modern equine ranch, including management of the breeding farm, farm lay out, estrous cycles, breeding problems and stallion care.

AGLI 19 — Horse Hoof Care **2 Units**
18 hours of lecture. Degree Appropriate, CSU
54 hours of lab.
Emphasizes proper horse hoof care; shoeing, trimming and disease recognition and control.

AGLI 20 — Horse Behavior and Training **2 Units**
18 hours of lecture. Degree Appropriate
54 hours of lab.
Corequisite: AGLI 16 or AGLI 18 (may have been taken previously) or equivalent experience with horses
Breaking and starting young horses. Concentrates on halter training of foals, ground work on yearlings, and green-breaking two-year-olds and up. Includes lunging techniques, driving, and breaking to a saddle. Training in collection, turning, backing, leads, and trailer loading.

AGLI 30 — Beef Production **3 Units**
36 hours of lecture. Degree Appropriate, CSU
54 hours of lab.
Principles and practices in the selection and management of feeder, market, and breeding beef cattle. Economics of production, retail product, utilization of farm-grown feeds, and feedlot operation.

AGLI 34 — Livestock Judging and Selection **2 Units**
18 hours of lecture. Degree Appropriate, CSU, UC
54 hours of lab.
Study of form and appearance of farm animals as related to their function. Includes judging of breeding and terminal livestock as well as carcass evaluation.

AGLI 95 — Anatomy of Domestic Animals **4 Units**
54 hours of lecture. Degree Appropriate, CSU
54 hours of lab.
Anatomy of domestic animals including body structures and systems, comparing domestic animals commonly found in the veterinary medical industry.

AGLI 96 — Animal Sanitation and Disease Control **3 Units**
54 hours of lecture. Degree Appropriate, CSU
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**
Spring Semester Degree Appropriate
18 hours of lecture.
54 hours of lab.
Theory and application of artificial insemination of domestic animals, including semen evaluation and processing, heat synchronization, and pregnancy diagnosis.

AGLI 98 — Physiology of Domestic Animals **2 Units**
36 hours of lecture. Degree Appropriate
Prerequisite: AGLI 95
Physiology of domestic animals with emphasis on the function of internal organs and body systems. Designed for the second year Registered Veterinary Technology student in preparation for the state board examination.

AGRICULTURE: ORNAMENTAL HORTICULTURE

AGOR 1 — Horticultural Science **3 Units**
(CAN AG 8) Degree Appropriate, CSU
54 hours of lecture.
The basic horticulture skills and techniques for use in gardening, nursery, and landscape applications. Emphasis on propagation, cultural practices, and the study of plant relationships, structure, growth and development.

AGOR 2 — Plant Propagation/Greenhouse Management **3 Units**
(CAN AG 10) Degree Appropriate, CSU
36 hours of lecture.
54 hours of lab.
Plant propagation and production practices with emphasis on florists' plants, woody ornamentals and fruits. Commercial techniques include seed propagation, cuttings, grafting and budding, layering, fern spring and division. Stresses greenhouses and other environmental structures for plant propagation and production.

AGOR 4 — Park Management **3 Units**
Fall Semester Degree Appropriate
54 hours of 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**
Spring Semester Degree Appropriate
54 hours of lecture.
Management and operation of different types of park facilities. Includes the management of sports fields, recreation centers, campgrounds, aquatic facilities and golf courses.

<p>AGOR 13 — Landscape Design 3 Units 36 hours of lecture. Degree Appropriate, CSU 54 hours of lab. Fundamentals and implementation of landscape design. Principles of design, the design process, drafting, graphics, site evaluation, landscaping materials, and plant usage. Projects emphasize residential and small commercial sites.</p>	<p>AGOR 29 — Ornamental Plants – Herbaceous 3 Units (CAN AG 18) Degree Appropriate, CSU, UC 36 hours of lecture. 54 hours of lab. Identification, growth habits, culture and ornamental use of landscape annuals, biennials, perennials, ferns, indoor plants, ground covers and vines adapted to climates of California. Plants emphasized will come from the California Association of Nurserymen (CAN) and California Landscape Contractors Association (CLCA) certification test plant lists.</p>	<p>AGOR 50 — Soil Science and Management 3 Units (CAN AG 14) Degree Appropriate, CSU, UC 36 hours of lecture. 54 hours of lab. Principles of proper soil management to optimize plant growth, including management of air, water, nutrients and organic matter. Physical and chemical properties of soil that govern soil reactions and interactions. Field trips are included.</p>
<p>AGOR 15 — Interior Landscaping 3 Units Fall Semester Degree Appropriate (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. Design, installation and maintenance practices used in interior landscaping. Includes identification, culture and care of plants suitable for interior use.</p>	<p>AGOR 30 — Ornamental Plants – Trees and Woody Shrubs 3 Units 36 hours of lecture. Degree Appropriate, CSU, UC 54 hours of lab. Identification, growth habits, culture and ornamental use of landscape trees and shrubs adapted to climates of California. Plants emphasized will come from the California Association of Nurserymen (CAN) and California Landscape Contractors Association (CLCA) certification test plant lists.</p>	<p>AGOR 51 — Tractor and Landscape Equipment Operations 3 Units Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. Selection, operation, repair and maintenance of power equipment used in the landscape industry. Includes 2WD and 4WD tractors, skip loader, skid steerloader, backhoe, lawnmowers, edgers, weed eaters, blower/vacuum, rotatillers, chainsaws, spraying equipment and all-terrain vehicles. Laboratory includes actual hands-on applications of this equipment.</p>
<p>AGOR 24 — Integrated Pest Management 3 Units 36 hours of lecture. Degree Appropriate, CSU 54 hours of lab. Identifies common agricultural pests in Southern California and analyzes physical, biological and chemical pest control principles and practices. Stresses use, safety, equipment, laws, and regulations of pesticides.</p>	<p>AGOR 32 — Landscaping and Nursery Management 3 Units Fall Semester Degree Appropriate, CSU 36 hours of lecture. 54 hours of lab. Operation and management of wholesale and retail nurseries. Includes site location and layout of areas; greenhouse management; soil mixes and proper use of fertilizers, insecticides, fungicides, herbicides and growth regulators; irrigation; mechanization; financing; personnel management; retail displays, advertising and customer relationships; federal, state and local laws and regulations. Field trips are included.</p>	<p>AGOR 52 — Hydraulics 3 Units Degree Appropriate, CSU 36 hours of lecture. 54 hours of lab. Operation, maintenance, and repair of hydraulic systems. Emphasis: pumps, valves, cylinders, flow control, reservoirs, lines, motors, and hydrostatic transmissions. Laboratory provides hands-on application of hydraulic systems.</p>
<p>AGOR 25 — Floral Design I 3 Units 36 hours of lecture. Degree Appropriate, CSU 54 hours of lab. Instruction and application of principles in the art of floral design as to form, styles and composition. Designing of floral arrangements, wreaths, sprays, baskets, bouquets, wedding flowers and corsages are included in the laboratory.</p>	<p>AGOR 39 — Turf Grass Production and Management 3 Units 36 hours of lecture. Degree Appropriate, CSU 54 hours of lab. Introduction to cultivation, maintenance and management of turfgrasses utilized for athletic fields, golf courses, parks, cemeteries, commercial and residential lawns. Identification, installation, cultural requirements and maintenance practices are emphasized.</p>	<p>AGOR 53 — Small Engine Repair I 3 Units Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. Principles and repair of small engines used in landscape, industrial and agricultural applications. Includes repairs of lawnmowers, chainsaws, 2-cycle engine, 4-cycle engine, spraying equipment, all-terrain vehicles, and other related gas-powered equipment.</p>
<p>AGOR 26 — Floral Design II 3 Units 36 hours of lecture. Degree Appropriate, CSU 54 hours of lab. <i>Prerequisite: AGOR 25 or equivalent experience.</i> Continued application of principles in the art of floral design. Contemporary design theory emphasizing creativity, self expression, and professional design situations.</p>	<p>AGOR 40 — Sports Turf Management 3 Units Spring Semester Degree Appropriate (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. <i>Prerequisite: AGOR 39 or equivalent experience</i> Prepares students to work in the sports turf industry. Emphasizes turf cultural techniques used in sports turf management. Includes turf surfaces used on baseball, football, soccer, tennis, golf courses, driving ranges and other sports fields in both professional and amateur sports. Field trips are included.</p>	<p>AGOR 54 — Small Engine Repair II 3 Units Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. Advanced repair and maintenance of mid-horsepower gasoline and diesel engines. Multi-cylinder air- and water-cooled engines used in landscape, industrial and agricultural applications. Repair of riding mowers, generator engines, air compressor engines, 2-cycle and 4-cycle engines, spraying equipment, all-terrain vehicles, and other related gas-powered equipment. Students gain actual hands-on experience maintaining and overhauling engines.</p>
<p>AGOR 27 — Floral Design III 3 Units (May be taken two times for credit.) Degree Appropriate (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. <i>Prerequisite: AGOR 25 and AGOR 26</i> Advanced application of principles in the art of holiday designs, party and wedding designs, and sympathy designs. Florist management operations will be emphasized. Students who repeat this course will improve skills through further instruction and practice.</p>		

Course Descriptions

<p>AGOR 55 — Diesel Engine Repair 3 Units Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. Repair and maintenance of diesel engines used to power industrial, landscape and agricultural equipment. Students gain actual hands-on experience maintaining, servicing, and repairing diesel engines.</p>	<p>AGOR 64 — Landscape Irrigation – Drip and Low Volume 3 Units Degree Appropriate (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. Conservation of water in the landscape by utilization of drip and low-flow irrigation practices. Design, operation and maintenance of drip and low-flow irrigation systems, including determination of irrigation requirements, selection of emitters and low-flow devices, and uniformity of water distribution. Students will gain hands-on experience in design and installation techniques.</p>	<p>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.</p>
<p>AGOR 56 — Engine Diagnostics 3 Units Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. Analysis and evaluation of tractor power failure. Students gain actual experience in the proper diagnostic procedures of power equipment. Service, maintenance and repair of tractor electrical systems: electrical wiring, voltage regulators, generators, alternators, switches, gauges, batteries and test equipment.</p>	<p>AGOR 71 — Landscape Construction Fundamentals 3 Units Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. <i>Advisory: Eligibility for ENGL 68</i> Fundamentals of construction techniques and tools used in landscaping. Students will gain skills in construction projects that include utilities (gas, water, electricity), woodworking, masonry and surveying techniques applied to landscaping.</p>	<p>AGOR 91 — Work Experience in Nursery Operations 1 Unit (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 75 hours of lab. <i>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog.</i> This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>AGOR 57 — Power Train Repair 3 Units Degree Appropriate (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. Service, maintenance, and repair of power trains. Students gain experience with clutches, transmissions, differentials, power take-off units, and final drive used to transmit power on tractors.</p>	<p>AGOR 72 — Landscape Hardscape Applications 3 Units Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. <i>Corequisite: AGOR 71 (May have been taken previously) or equivalent experience</i> <i>Advisory: Eligibility for ENGL 68</i> Landscape construction pertaining to all hardscape features. Course covers estimation and installation of fences, walks, planters, patios, lighting, barbecues, gazebos, decks, ponds, spas, fountains and pools. Students will gain hands-on experience in the laboratory activities.</p>	<p>AGOR 92 — Work Experience in Nursery Operations 2 Units (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 150 hours of lab. <i>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog.</i> This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>AGOR 62 — Landscape Irrigation – Design and Installation 3 Units Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. Design and application of turf and ornamental irrigation systems. Design techniques, sprinkler system components and hydraulic principles used in nursery management, interior design, residential and commercial landscaping. Special emphasis is given to water conservation incorporating controlled flow technologies.</p>	<p>AGOR 73 — Landscaping Laws, Contracting, and Estimating 3 Units Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. Landscape laws, contracting, and estimating as it pertains to Landscape Construction. Information covered will be helpful for the licensing exam administered by the state of California C-27 classification. Students will gain hands-on experience of contracting and running a business.</p>	<p>AGOR 93 — Work Experience in Nursery Operations 3 Units (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 225 hours of lab. <i>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog.</i> This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>AGOR 63 — Landscape Irrigation Systems Management 3 Units Degree Appropriate (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. <i>Advisory: Eligibility for ENGL 68</i> A systematic approach to water conservation in the landscape. Repair techniques that will allow a current system to efficiently operate to its initial design. Trouble shooting procedures including field testing of valves and controllers. Irrigation efficiency test will be incorporated to demonstrate proper methods of water audits.</p>	<p>AGOR 75 — Urban Arboriculture 3 Units Degree Appropriate (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. <i>Prerequisite: Eligibility for ENGL 68</i></p>	<p>AGOR 94 — Work Experience in Nursery Operations 4 Units (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 300 hours of lab. <i>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog.</i></p>

This course is designed to provide majors with actual on-the-job experience in an approved work station which is related to classroom instruction. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AGRICULTURE: PET SCIENCE

AGPE 70 — Pet Shop Management **3 Units**
 Fall Semester Degree Appropriate
 54 hours of lecture.

The pet industry, pet shop operations and the economic aspects of the retail/wholesale pet business. Includes organization and operation of pet shops, animal care practices, and sound business management practices.

AGPE 71 — Canine Management **3 Units**
 36 hours of lecture. Degree Appropriate
 54 hours of lab.

Selection, feeding, housing, breeding and management of dogs, including commercial aspects of the dog as a domestic pet. Laboratory work will include practical experience in the handling, training and grooming of dogs.

AGPE 72 — Feline Management **3 Units**
 54 hours of lecture. Degree Appropriate

Advisory: Eligibility for ENGL 68

Care and management of cats. Includes breed identification and characteristics, grooming, showing, nutrition, practical care, behavior, breeding, and housing.

AGPE 73 — Tropical and Coldwater Fish Management **2 Units**
 Fall Semester Degree Appropriate
 36 hours of lecture.

Advisory: Eligibility for ENGL 68

Care and keeping of marine and freshwater aquarium fishes, plants, and invertebrates. Includes guidance on setting up aquariums, choosing compatible species, feeding, health care, breeding and raising fish.

AGPE 74 — Reptile Management **2 Units**
 Fall Semester Degree Appropriate
 36 hours of lecture.

Advisory: Eligibility for ENGL 68

Care and keeping of reptiles and amphibians, including snakes, lizards, turtles, tortoises, newts, salamanders and frogs. Includes identification and characteristics of reptiles commonly kept as pets. Guidance regarding the housing, feeding, health maintenance, breeding and raising of reptiles will be offered.

AGPE 76 — Aviculture – Cage and Aviary Birds **3 Units**
 Spring Semester Degree Appropriate
 54 hours of lecture.

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.

AIR CONDITIONING & REFRIGERATION

AIRC 10 — Technical Mathematics in Air Conditioning and Refrigeration **2 Units**

27 hours of lecture. Degree Appropriate
 27 hours of lab.

Develops mathematical skills required for the study and application of air conditioning and refrigeration including measurements and equations applied to heat loads, air distribution, electricity, and the design of air conditioning and refrigeration equipment.

AIRC 11 — Welding for Air Conditioning and Refrigeration **2 Units**
 18 hours of lecture. Degree Appropriate
 54 hours of lab.

Fundamentals of welding related to the field of air conditioning and refrigeration with emphasis on the sterile techniques and skills required for joining copper refrigerant lines and the procedures for light fabrication.

AIRC 12 — Air Conditioning Codes and Standards **3 Units**
 54 hours of lecture. Degree Appropriate

Building codes and standards as they apply to the air conditioning and refrigeration industry. Develops skills necessary to read and interpret building codes and resolve installation and service problems as they apply to the construction industry.

AIRC 20 — Refrigeration Fundamentals **3 Units**
 36 hours of lecture. Degree Appropriate
 72 hours of lab.

Principles of mechanical refrigeration based on the refrigeration cycle and associated mechanical components. Develops skills for interpreting service gauge pressures and sensible temperatures, system dehydration techniques, and the safe handling and containment of refrigerants.

AIRC 25 — Electrical Fundamentals for Air Conditioning and Refrigeration **4 Units**

54 hours of lecture. Degree Appropriate
 54 hours of lab.

Electrical principles and practices used in air conditioning and refrigeration as applied to the development and interpretation of schematics and the sequential approach to wiring circuits including power supplies, motors, and controls. Develops skills for designing electrical circuits, and electrical troubleshooting.

AIRC 26A — Heat Pump Fundamentals **1.5 Units**
 27 hours of lecture. Degree Appropriate

Advisory: AIRC 25 taken prior

Theory, operation and application of heat pump systems used in residential and light commercial heating installations including the heat pump refrigeration cycle, reversing valves, defrost methods supplemental heat, balance point, air flow, and heat pump thermostats.

AIRC 26B — Gas Heating Fundamentals **2 Units**
 36 hours of lecture. Degree Appropriate

Advisory: AIRC 12, AIRC 25 taken prior

Theory, operation, and application of natural gas and propane heating systems used in residential and light commercial heating installations including the properties of fuel gasses, gas combustion, furnace construction, pilot proving devices and ignition systems.

AIRC 30 — Heat Load Calculations **3 Units**
 54 hours of lecture. Degree Appropriate

Advisory: AIRC 20 taken prior

Heat load factors and charts will be explored, developed and applied to the heat loss and gain of a residential, refrigeration and commercial building.

AIRC 31 — Commercial Electrical for Air Conditioning and Refrigeration **4 Units**

54 hours of lecture. Degree Appropriate
 54 hours of lab.

Advisory: AIRC 25 taken prior

Electrical control of commercial air conditioning and refrigeration equipment emphasizing time clocks, defrost, three phase transformers, three phase motors, timers, sequencers, starting methods and troubleshooting of three phase systems.

AIRC 32A — Air Properties and Measurement **1.5 Units**
 27 hours of lecture. Degree Appropriate

Advisory: AIRC 20, AIRC 30 taken prior

Investigates the air-side operating theory and application of comfort cooling systems. This course will broaden the student's understanding of air conditioning systems by addressing psychrometrics to include the measurement of dry bulb and wet bulb temperatures, relative humidity, dew point temperatures, and sensible and latent heat processes.

AIRC 32B — Air Distribution Systems **1.5 Units**
 27 hours of lecture. Degree Appropriate

Advisory: AIRC 20, AIRC 30, AIRC 32A taken prior

Designed as a continuation of AIRC 32A and explores airside equipment and duct design applied to built-up and unitary air distribution systems.

Course Descriptions

AIRC 34 — Advanced Mechanical Refrigeration **4 Units**

54 hours of lecture. Degree Appropriate

54 hours of lab.

Advisory: AIRC 31, AIRC 32A, AIRC 32B taken prior

Advanced principles of mechanical air conditioning and refrigeration based on operating characteristics of working equipment and the interpretation of the pressure-enthalpy chart. Advanced technical aspects of mechanical components will be explored to include compressors, metering devices, pressure regulators, capacity controls, and defrost methods.

AIRC 37 — Pneumatic Controls **2 Units**

27 hours of lecture. Degree Appropriate

27 hours of lab.

Advisory: AIRC 20 taken prior

Pneumatic controls including thermostats, valves, receiver controllers and dampers applied to various commercial air conditioning and refrigeration systems.

AIRC 39 — Building Automation Systems **4 Units**

54 hours of lecture. Degree Appropriate

54 hours of lab.

Advisory: AIRC 32A, AIRC 32B taken prior

Principles of building automation systems applied to air conditioning systems, chiller plant operation, and air distribution. Includes the application of variable air volume, constant air systems, multizone systems and controlled devices used in automated air conditioning systems. Emphasis on programming strategies applied to mechanical trainers.

AIRC 95 — Work Experience in Air Conditioning and Refrigeration **1 Unit**

(May be taken four times for credit.) Non-Degree Credit

(May be taken for Credit/No Credit only.)

75 hours of lab.

Prerequisite: Approval of college Work Experience supervisor and compliance with Work Experience regulations as designated in the College Catalog

This course is designed to combine actual job experience in Air Conditioning & Refrigeration with related classroom instruction. This work experience may be during a regular semester or during a summer session. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AIRC 96 — Work Experience in Air Conditioning and Refrigeration **2 Units**

(May be taken four times for credit.) Non-Degree Credit

(May be taken for Credit/No Credit only.)

150 hours of lab.

Prerequisite: Approval of college Work Experience supervisor and compliance with Work Experience regulations as designated in the College Catalog

This course is designed to combine actual job experience in Air Conditioning & Refrigeration with related classroom instruction. This work experience may be during a regular semester or during a summer session. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AIRC 97 — Work Experience in Air Conditioning and Refrigeration **3 Units**

(May be taken four times for credit.) Non-Degree Credit

(May be taken for Credit/No Credit only.)

225 hours of lab.

Prerequisite: Approval of college Work Experience supervisor and compliance with Work Experience regulations as designated in the College Catalog

This course is designed to combine actual job experience in Air Conditioning & Refrigeration with related classroom instruction. This work experience may be during a regular semester or during a summer session. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AIRC 98 — Work Experience in Air Conditioning and Refrigeration **4 Units**

(May be taken four times for credit.) Non-Degree Credit

(May be taken for Credit/No Credit only.)

300 hours of lab.

Prerequisite: Approval of college Work Experience supervisor and compliance with Work Experience regulations as designated in the College Catalog

This course is designed to combine actual job experience in Air Conditioning & Refrigeration with related classroom instruction. This work experience may be during a regular semester or during a summer session. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AIR TRAFFIC CONTROL**AIRC 41 — Aircraft Recognition and Performance** **2 Units**

36 hours of lecture. Degree Appropriate, CSU

Advisory: AERO 23

Recognition of distinctive identification features of operational aircraft and their performance characteristics. Classification of aircraft by Federal Aviation Administration designations.

AIRC 42 — Air Traffic Control Environment **3 Units**

Fall Semester Degree Appropriate, CSU

54 hours of lecture.

Advisory: AERO 23 and TRAN 17

Aircraft operation in the National Airspace System. Control tower operations, terminal and enroute radar control. Coordination and control within an ATC team environment. Radio communication techniques and phraseology. Non-radar control and separation procedures.

AIRC 43 — Air Traffic Control Team Skills **1.5 Units**

Spring Semester Degree Appropriate, CSU

27 hours of lecture.

Advisory: AIRC 42

Team building skills for aviation professionals, with emphasis on air traffic control scenarios. Control tower simulations, including communication and conflict resolution. Coordination and control of air traffic utilizing FAA standards and interpersonal team skills.

AIRC 45 — Flight Services **3 Units**

54 hours of lecture. Degree Appropriate, CSU

Advisory: AERO 23, AERO 29

Air traffic control procedures utilized in providing flight assistance and communication services. Air traffic pilot briefings, emergency procedures, flight handling, search and rescue, and introduction to data transmission procedures and services.

AIRC 47 — Work Experience in Air Traffic Control **1 Unit**

(May be taken four times for credit.) Degree Appropriate

(May be taken for Credit/No Credit only.)

18 hours of lab.

Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog

On-the-job experience in an approved FAA work station. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

AIRC 51 — Air Traffic Control Laboratory **1 Unit**

54 hours of lab. Degree Appropriate

Advisory: AERO 23, AERO 26, AERO 29

Concepts, procedures, and skills related to air traffic control. Microphone technique, voice control, phraseology, facility and interfacility coordination, strip markings, airport traffic control, weather observing, and control tower functions.

AIRT 55 — Terminal Radar Approach Control Laboratory 1 Unit
(May be taken two times for credit.) Degree Appropriate
54 hours of lab.
Advisory: AIRT 51 and AERO 30 taken prior or concurrently
Simulation of a radar approach control facility concentrating on approach and departure procedures using appropriate phraseology, flight progress strip markings and radar separation standards. Students who repeat this course will improve skills through further instruction and practice.

AIRCRAFT MAINTENANCE TECHNOLOGY

AIRM 65A — Aircraft Powerplant Maintenance Technology 12 Units
Fall Semester Degree Appropriate, CSU
108 hours of lecture.
324 hours of lab.
Advisory: AIRM 70A, AIRM 71
Theory and maintenance of aircraft powerplant including systems and components. Approved by the FAA and required for the Airframe & Aircraft Powerplant Maintenance Technology Major.

AIRM 65B — Aircraft Powerplant Maintenance Technology 12 Units
Spring Semester Degree Appropriate
108 hours of lecture.
324 hours of lab.
Advisory: AIRM 70B, AIRM 72, AIRM 73
Continuation of Aircraft Powerplant Maintenance Technology 65A, focusing on reciprocating engine systems and components and turbine engine systems and components. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.

AIRM 66A — Airframe Maintenance Technology 12 Units
Fall Semester Degree Appropriate, CSU
108 hours of lecture.
324 hours of lab.
Advisory: AIRM 70A, AIRM 71
Theory of flight. Inspection, maintenance, repair, and alteration of aircraft structures. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.

AIRM 66B — Airframe Maintenance Technology 12 Units
Spring Semester Degree Appropriate
108 hours of lecture.
324 hours of lab.
Advisory: AIRM 70B, AIRM 72, AIRM 73
Continuation of Airframe Maintenance Technology 66A, focusing on airframe systems and components. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.

AIRM 70A — Aircraft Maintenance Electricity and Electronics 3 Units
36 hours of lecture. Degree Appropriate
72 hours of lab.
Advisory: AIRM 71
Basic electrical theory including units, terminology, applications of Ohm's Law in series and parallel circuits, nickel cadmium and lead acid storage batteries, generators and related control circuits, electrical wiring practical measuring instruments construction and use. Approved by the FAA and required for the Airframe & Aircraft Powerplant Maintenance Technology Major.

AIRM 70B — Aircraft Maintenance Electricity and Electronics 3 Units
36 hours of lecture. Degree Appropriate
72 hours of lab.
Advisory: AIRM 72, AIRM 73 (May be taken concurrently)
Basic principles of alternating current, terminology, units and circuit arrangements, alternators, inverters and related controls, derating of switches and circuit breakers, capacitors, inductors, transistors, cathode ray tube electronics, microprocessors, computers, power distribution systems for large aircraft. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.

AIRM 71 — Aviation Maintenance Science 6 Units
108 hours of lecture. Degree Appropriate
Federal aviation regulations, interpretation of aircraft drawings, basic physics, technical mathematics, and aircraft weight and balance. FAA approved course required of all aircraft powerplant and airframe maintenance technology majors.

AIRM 72 — Aviation Materials and Processes 1.5 Units
18 hours of lecture. Degree Appropriate
36 hours of lab.
Advisory: AIRM 70B, AIRM 73
Aviation materials, non-destructive testing, basic heat-treating and introduction to machine tool operation. Approved by the FAA and required for the Airframe & Aircraft Powerplant Maintenance Technology Major.

AIRM 73 — Aviation Welding 1.5 Units
18 hours of lecture. Degree Appropriate
36 hours of lab.
Advisory: AIRM 70B, AIRM 72 (May be taken concurrently)
Theory and techniques of gas and inert gas welding as they apply to aircraft construction and repair. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.

AIRM 74 — Aircraft Maintenance Technology – Work Experience 2 Units
(May be taken for Credit/No Credit only.) Degree Appropriate
90 hours of lab.
Prerequisite: AIRM 65A and AIRM 65B or AIRM 66A and AIRM 66B

Combines aircraft maintenance experience in addition to classroom instruction for college credit. Two units of credit will be earned as a result of 120 unpaid work hours. The employer/evaluator will have the student perform aircraft maintenance work under direct supervision at a maintenance facility.

AIRM 80 — Lab Studies in Aircraft Maintenance Technology .5 Unit
(May be taken four times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
27 hours of lab.
Advisory: AIRM 65 A/B, or AIRM 66 A/B, or AIRM 90-93 A/B, or AIRM 95-98A/B, or equivalent
Additional lab instruction for students lacking FAA required hours to complete a training certificate or requiring remediation of program modules or completion of laboratory assignments. Students who repeat this course will improve skills through further instruction and practice.

AIRM 81 — Lab Studies in Aircraft Maintenance Technology 1 Unit
(May be taken four times for credit.) Non-Degree Credit
(May be taken for Credit/No Credit only.)
54 hours of lab.
Additional lab instruction for students lacking FAA required hours to complete a training certificate or required remediation of program modules or completion of laboratory assignments. Students who repeat this course will improve skills through further instruction and practice.

AIRM 90A — Airframe Maintenance Technology 3 Units
Spring Semester Degree Appropriate
36 hours of lecture.
72 hours of lab.
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73
Aircraft flight and flight control. Construction methods and procedures. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major.

AIRM 90B — Airframe Maintenance Technology 3 Units
Spring Semester Degree Appropriate
36 hours of lecture.
72 hours of lab.
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73
Aircraft structural designs, station numbers, aviation nomenclature and definitions. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.

AIRM 91A — Airframe Maintenance Technology 3 Units
Fall Semester Degree Appropriate
36 hours of lecture.
72 hours of lab.
Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73
Aircraft wood structures, their coverings and finishes. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.

Course Descriptions

<p>AIRM 91B — Airframe Maintenance Technology 3 Units Fall Semester Degree Appropriate 36 hours of lecture. 72 hours of lab. <i>Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73</i> 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.</p>	<p>AIRM 95B — Aircraft Powerplant Maintenance Technology 3 Units Spring Semester Degree Appropriate 36 hours of lecture. 72 hours of lab. <i>Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73</i> Piston engine overhaul, inspection, and troubleshooting procedures. Approved by the FAA and required for the Airframe & Aircraft Powerplant Maintenance Technology Major.</p>	<p>AIRM 98A — Aircraft Powerplant Maintenance Technology 3 Units Fall Semester Degree Appropriate 36 hours of lecture. 72 hours of lab. <i>Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73</i> Reciprocating and turbine engine ignition system theory and operation. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</p>
<p>AIRM 92A — Airframe Maintenance Technology 3 Units Spring Semester Degree Appropriate 36 hours of lecture. 72 hours of lab. <i>Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73</i> Aircraft hydraulic and pneumatic power systems, landing gear and wheel and brake systems. FAA approved. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</p>	<p>AIRM 96A — Aircraft Powerplant Maintenance Technology 3 Units Fall Semester Degree Appropriate 36 hours of lecture. 72 hours of lab. <i>Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73</i> Aircraft turbine engine history, construction, thrust formulas and turbine engine types. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major. Required for FAA certification.</p>	<p>AIRM 98B — Aircraft Powerplant Maintenance Technology 3 Units 36 hours of lecture. Degree Appropriate 72 hours of lab. <i>Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73</i> Reciprocating and turbine engine lubricants and lubricating systems. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</p>
ALCOHOL DRUG COUNSELING		
<p>AIRM 92B — Airframe Maintenance Technology 3 Units Spring Semester Degree Appropriate 36 hours of lecture. 72 hours of lab. <i>Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73</i> Aircraft warning systems, aircraft instrument systems and aircraft fuel storage and transfer systems. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major.</p>	<p>AIRM 96B — Aircraft Powerplant Maintenance Technology 3 Units Fall Semester Degree Appropriate 36 hours of lecture. 72 hours of lab. <i>Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73</i> Propeller theory, nomenclature, application, constant speed devices, and propeller controls. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology Major. Required for FAA certification.</p>	<p>AD 1 — Alcohol/Drug Dependency 3 Units 54 hours of lecture. Degree Appropriate, CSU Presents an overview of alcohol and chemical dependencies and its 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. Includes familiarization with terms.</p>
<p>AIRM 93A — Airframe Maintenance Technology 3 Units Fall Semester Degree Appropriate 36 hours of lecture. 72 hours of lab. <i>Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73</i> Aircraft cabin heating and cooling, communication and navigation systems, and ice and rain control systems. Approved by the FAA and required for the Airframe & Aircraft Powerplant Maintenance Technology Major.</p>	<p>AIRM 97A — Aircraft Powerplant Maintenance Technology 3 Units 36 hours of lecture. Degree Appropriate 72 hours of lab. <i>Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73</i> Instrumentation used in small and large aircraft engine indicating systems, including analog and digital equipment. Smoke and fire detection and suppression systems used on small and large aircraft. Includes engine starting systems and electrical power generating devices. Approved by the FAA and required for the Airframe & Aircraft Powerplant Maintenance Technology Major.</p>	<p>AD 2 — Physiological Effects of Alcohol/Drugs 3 Units 54 hours of lecture. Degree Appropriate, CSU Examines in-depth the physiological effect of alcohol and other drugs on the human body. Includes aspects of tolerance, habituation, cross tolerance and synergistic effect.</p>
<p>AIRM 93B — Airframe Maintenance Technology 3 Units 36 hours of lecture. Degree Appropriate 72 hours of lab. <i>Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73</i> Aircraft fire detection and suppression systems. Aircraft inspection requirements and procedures. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</p>	<p>AIRM 97B — Aircraft Powerplant Maintenance Technology 3 Units Spring Semester Degree Appropriate 36 hours of lecture. 72 hours of lab. <i>Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73</i> Reciprocating engine and turbine engine fuels, fuel metering devices, and system operation. Approved by the FAA and required for the Airframe and Aircraft Powerplant Maintenance Technology major.</p>	<p>AD 3 — Chemical Dependency: Intervention, Treatment and Recovery 3 Units 54 hours of lecture. Degree Appropriate, CSU Examines and analyzes the tools and techniques necessary in moving the chemically dependent individual into the treatment process; the varying types of treatment programs, and the essentials of effective recovery.</p>
<p>AIRM 95A — Aircraft Powerplant Maintenance Technology 3 Units 36 hours of lecture. Degree Appropriate 72 hours of lab. <i>Advisory: AIRM 70A, AIRM 70B, AIRM 71, AIRM 72, AIRM 73</i> Piston powerplant theory. Calculations and construction. Approved by the FAA and required for the Airframe & Aircraft Powerplant Maintenance Technology Major.</p>		<p>AD 4 — Issues in Domestic Violence 3 Units 54 hours of lecture. Degree Appropriate Presents an overview of domestic violence and its ramifications. Examines the history, the law, the psychology of domestic violence, violence in families, the relationship of violence and chemical dependency, cultural and social aspects, breaking the cycle of violence, assessment/interventions, and resources in the community.</p> <p>AD 5 — Chemical Dependency: Prevention and Education 1.5 Units 27 hours of lecture. Degree Appropriate, CSU Reviews history, theories, models, and state of the art approaches to the prevention field. Examines identified risk factors, cultural/ethnic consideration, and community prevention strategies.</p>

<p>AD 6 — Dual Diagnosis 3 Units 54 hours of lecture. Degree Appropriate, CSU Overview of the complex interactions of mental disorders and chemical dependency. Reviews and examines the key areas involving dual diagnosis: definition, diagnosis, treatment and aftercare.</p>	<p>The first of a two-semester sequence which places students in Alcohol/Drug Abuse agencies and organizations. This first semester emphasizes growth in self-awareness and professionalism, interviewing skills and group process skills.</p>	<p>AMLA 42W — American Language Intermediate Writing 4 Units (May be taken two times for credit.) Pre-Collegiate (May be taken for option of letter grade or Credit/No Credit.) 72 hours of lecture. <i>Prerequisite:</i> Satisfactory score on the English Placement Test or successful completion of AMLA 41W or noncredit ESL level 5 or 6 or VESL <i>Advisory:</i> AMLA 32R taken prior or concurrently Intermediate grammar and writing for non-native speakers. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>AD 8 — Group Process and Leadership 3 Units 54 hours of lecture. Degree Appropriate <i>Advisory:</i> AD 1, AD 2, AD 3 taken prior and AD 4, AD 5, AD 6 taken prior or concurrently Introduces the theory and practice of group therapy, the group process and dynamics of group interaction, and the functions of the counselor as facilitator. Emphasizes the group process as a method of change.</p>	<p>AD 14 — Advanced Internship/Seminar 3.5 Units (May be taken for Credit/No Credit only.) Degree Appropriate, CSU 27 hours of lecture. 126 hours of lab. <i>Advisory:</i> AD 10 and AD 13 The second of a two-semester sequence in which the student applies the values, concepts and skills gained from previous courses to the actual process of helping chemically dependent persons.</p>	<p>AMLA 43W — American Language Advanced Writing 4 Units (May be taken two times for credit.) Pre-Collegiate (May be taken for option of letter grade or Credit/No Credit.) 72 hours of lecture. <i>Prerequisite:</i> Satisfactory score on the English Placement Test or successful completion of AMLA 42W <i>Advisory:</i> AMLA 33R taken prior or concurrently Advanced grammar and writing for non-native speakers. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>AD 9 — Family Counseling 3 Units 54 hours of lecture. Degree Appropriate <i>Advisory:</i> AD 1, AD 2, AD 3 taken prior and AD 4, AD 5, AD 6 taken prior or concurrently Explores methods of assisting others who are significant in the lives of chemically dependent persons. Examines the ideas and dynamics of those relationships and develops strategies for the counselor. Participates in exercises leading to the development of counseling skills.</p>	<p style="text-align: center;">AMERICAN LANGUAGE</p> <p>AMLA 31R — American Language Basic Reading 4 Units (May be taken two times for credit.) Pre-Collegiate (May be taken for option of letter grade or Credit/No Credit.) 72 hours of lecture. <i>Advisory:</i> Successful completion of noncredit ESL level 4 Basic reading and vocabulary for non-native speakers. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>AMLA 43W — American Language Advanced Writing 4 Units (May be taken two times for credit.) Pre-Collegiate (May be taken for option of letter grade or Credit/No Credit.) 72 hours of lecture. <i>Prerequisite:</i> Satisfactory score on the English Placement Test or successful completion of AMLA 42W <i>Advisory:</i> AMLA 33R taken prior or concurrently Advanced grammar and writing for non-native speakers. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>AD 10 — Client Record and Documentation 1.5 Units Spring Semester Degree Appropriate 27 hours of lecture. <i>Advisory:</i> AD 1, AD 2, AD 3 taken prior and AD 4, AD 5, AD 6 taken prior or concurrently Presents a comprehensive overview of the components, areas of responsibilities, and methods of documentation in the patient/client's clinical record as required by federal, state, county, and private regulatory bodies. The course is designed to meet the training needs of persons who will be working in chemical dependency programs. Special emphasis is directed to the formulation and development of the written clinical treatment plan based on the written intake of psychobiosocial history.</p>	<p>AMLA 32R — American Language Intermediate Reading 4 Units (May be taken two times for credit.) Pre-Collegiate (May be taken for option of letter grade or Credit/No Credit.) 72 hours of lecture. <i>Advisory:</i> Completion of AMLA 31R or successful completion of ESL levels 5 or 6 or VESL Intermediate reading and vocabulary for non-native speakers. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>AMLA 50 — American Language Speaking 3 Units (May be taken two times for credit.) Pre-Collegiate (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. Develops intermediate speaking and listening skills for non-native speakers. Concentration is on pronunciation. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>AD 11 — Techniques of Intervention and Referral 3 Units 54 hours of lecture. Degree Appropriate <i>Advisory:</i> AD 1, AD 2, AD 3 taken prior and AD 4, AD 5, AD 6 taken prior or concurrently Study and practice techniques used for crisis and beginning counseling, intake interviewing and referral. Using an experiential format, participants will learn and practice skills in attentive listening, recognizing and responding to different levels of client communication.</p>	<p>AMLA 33R — American Language Advanced Reading 4 Units (May be taken two times for credit.) Pre-Collegiate (May be taken for option of letter grade or Credit/No Credit.) 72 hours of lecture. <i>Advisory:</i> Completion of AMLA 32R Advanced reading and vocabulary for non-native speakers. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>AMLA 53 — American Language Speaking 3 Units Pre-Collegiate (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. Develops advanced speaking and listening skills for non-native speakers. Concentrates on formal and informal communication.</p>
<p>AD 13 — Internship/Seminar 3.5 Units (May be taken for Credit/No Credit only.) Degree Appropriate, CSU 27 hours of lecture. 126 hours of lab. <i>Advisory:</i> AD 1, AD 2, AD 3, AD 4, AD 5, AD 6, and six units of Restricted Electives taken prior and AD 8, AD 9, AD 10, AD 11 taken prior or concurrently</p>	<p>AMLA 41W — American Language Basic Writing 4 Units (May be taken two times for credit.) Pre-Collegiate (May be taken for option of letter grade or Credit/No Credit.) 72 hours of lecture. <i>Prerequisite:</i> Satisfactory score on the English Placement Test or successful completion of noncredit ESL level 4 <i>Advisory:</i> AMLA 31R taken prior or concurrently Basic grammar and writing for non-native speakers. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>AMLA 56 — American Language Nouns and Articles 1 Unit (May be taken two times for credit.) Pre-Collegiate (May be taken for option of letter grade or Credit/No Credit.) 18 hours of lecture. Concentrates on count and non-count nouns, article usage and other determiners for non-native learners of English. Writing practice and exercises will emphasize correct usage of these structures in writing and speaking. Students who repeat this course will improve skills through further instruction and practice.</p>

Course Descriptions

AMLA 57 — American Language Verb Review I **1 Unit**
(May be taken two times for credit.) Pre-Collegiate
(May be taken for option of letter grade or Credit/No Credit.)
18 hours of lecture.

Concentrates on verb tense, form, and use for non-native learners of English. Practice in present, past, and future verb tense forms, meaning, and use in both spoken and written English, with special emphasis on writing for college courses. Students who repeat this course will improve their skills through further instruction and practice.

AMLA 58 — American Language Verb Review II **1 Unit**
(May be taken two times for credit.) Pre-Collegiate
(May be taken for option of letter grade or Credit/No Credit.)
18 hours of lecture.

Advanced work on modals, passive voice, passive modals, and conditionals for non-native English students. Exercises and writing practice will emphasize improved verb usage in writing. Students who repeat this course will improve their skills through further instruction and practice.

AMLA 59 — American Language Prepositions **1 Unit**
(May be taken two times for credit.) Pre-Collegiate
(May be taken for option of letter grade or Credit/No Credit.)
18 hours of lecture.

Designed to help non-native learners of English practice their use of prepositions in spoken and written English. Students will analyze prepositions and idiomatic expressions through reading and will apply their knowledge to written work. Students who repeat this course will improve skills through further instruction and practice.

AMLA 60 — American Language Verb Review III **1 Unit**
(May be taken two times for credit.) Pre-Collegiate
(May be taken for option of letter grade or Credit/No Credit.)
18 hours of lecture.

Advanced work on gerunds, infinitives and participles for non-native English students. Exercises and writing practice will emphasize improved verbal usage in writing. Students who repeat this course will improve skills through further instruction and practice.

AMLA 61 — American Language Word Forms **1 Unit**
(May be taken two times for credit.) Pre-Collegiate
(May be taken for option of letter grade or Credit/No Credit.)
18 hours of lecture.

Helps non-native speakers of English practice noun, verb, adjective and adverb word forms in spoken and written English. Students who repeat the course will improve skills by further instruction and practice.

ANATOMY & PHYSIOLOGY

ANAT 10A — Introductory Human Anatomy **4 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
54 hours of lab.

A systematic study of the macroscopic and microscopic structures of the human body. Emphasis on cell structures, skeletal, muscular, respiratory, circulatory, nervous, digestive, excretory, endocrine, and reproductive systems.

ANAT 10B — Introductory Human Physiology **4 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
54 hours of lab.
Prerequisite: ANAT 10A

An integrated study of the function of and interaction between the skeletal, muscular, respiratory, circulatory, nervous, digestive, excretory (including electrolyte and acid-base balance), endocrine, and reproductive systems (including human genetics and embryology).

ANAT 35 — Human Anatomy **5 Units**
(CAN BIOL10) Degree Appropriate, CSU, UC
ANAT 35+36 = CAN BIOL SEQ B
54 hours of lecture.
108 hours of lab.

Structure of the organ systems at the gross, subgross, and microscopic levels based on human material and dissection of the cat. Designed to serve as an introduction to vertebrate embryology.

ANAT 36 — Human Physiology **5 Units**
(CAN BIOL12) Degree Appropriate, CSU, UC
ANAT 35+36 = CAN BIOL SEQ B
54 hours of lecture.
108 hours of lab.

Prerequisite: ANAT 35 and CHEM 10 or CHEM 40 or one year of high school chemistry

Extensive study of human physiology at the cellular and molecular levels covering muscular, nervous, circulatory, respiratory, renal, digestive, endocrine, and reproductive systems. Includes regulation and integration of organ systems where appropriate.

ANAT 50 — Basic Anatomy and Physiology **3 Units**
54 hours of lecture. Degree Appropriate
Introduction to human anatomy and physiology, with brief descriptions of biochemistry, cell biology and molecular biology.

ANTHROPOLOGY

ANTH 1 — Biological Anthropology **3 Units**
(CAN ANTH 2) Degree Appropriate, CSU, UC
54 hours of lecture.

Prerequisite: Eligibility for ENGL 68

The evolutionary biology of primates with particular emphasis on hominid evolution and behavior. The genetic and evolutionary mechanisms underlying evolution, human variation, primate field studies, and the hominid paleontological record are stressed.

ANTH 1H — Biological Anthropology – Honors **3 Units**
(CAN ANTH 2) Degree Appropriate, CSU, UC
54 hours of lecture.

Prerequisite: Acceptance into the Honors Program

The evolutionary biology of primates with particular emphasis on hominid evolution and behavior. The genetic and evolutionary mechanisms underlying evolution, human variation, primate field studies, and the hominid paleontological record are stressed. This enriched course is designed for the honors program allowing, for example, more student directed discussions and more extensive writing assignments. Students may not receive credit for both ANTH 1 and ANTH 1H.

ANTH 1L — Biological Anthropology Laboratory **1 Unit**
54 hours of lab. Degree Appropriate, CSU, UC
Corequisite: ANTH 1 or ANTH 1H (May have been taken previously)

Scientific study of human evolution. Students will generate and test hypotheses using the techniques and materials of biological anthropology. Includes genetic observations and calculations, osteological techniques and measurements, and primate behavior observations. One field trip to a zoo for primate observation is required.

ANTH 3 — Archaeology **3 Units**
(CAN ANTH 6) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours of lecture.

Prerequisite: Eligibility for ENGL 68

Introduction to the aims, methods and ethics of archaeological research and their application to the archaeological record, in contrast to popular depictions of archaeology. Topics include the evolution of culture from the earliest stone toolmakers to the primary civilizations of the Old and New Worlds, with emphasis on the invention and spread of agriculture and the impact of this change on prehistoric cultures.

ANTH 5 — Principles of Cultural Anthropology **3 Units**
(CAN ANTH 4) Degree Appropriate, CSU, UC
54 hours of 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**
54 hours of lecture. Degree Appropriate, CSU, UC

An introductory course to explore the nature of culture and how cultural anthropologists study cultural phenomena such as: language, personality, subsistence, economics, social and political organization, marriage, kinship systems, religion, the arts, and culture change. A substantial amount of case material will be drawn from at least three of the following: African Americans, indigenous peoples of the United States, Asian Americans, Chicano/Latino Americans, and European Americans. This course may meet the cultural diversity requirement at transfer universities.

ANTH 30 — The Native American **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
Surveys the prehistory and history of Native Americans. An overview of the classification system used to organize particular groups into culture areas related to adaptive strategies. Identification of world contributions and contemporary issues for modern Native Americans.

ANTH 99 — Special Projects in Anthropology **2 Units**
(May be taken four times for credit.) Degree Appropriate, CSU
36 hours of lecture.

To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.

ARCHITECTURAL TECHNOLOGY

ARCH 10 — Design I – Elements of Design **3 Units**
36 hours of lecture. Degree Appropriate, CSU
72 hours of lab.

Fundamentals of two- and three-dimensional design and design process. Elements include visualization, perception, presentation, expression, and site analysis of physical/contextual/cultural aspects of design and/or the urban environment. Portfolio will be produced.

ARCH 11 — Architectural Drawing **3 Units**
36 hours of lecture. Degree Appropriate, CSU, UC
72 hours of lab.

Advisory: Eligibility for MATH 51

Basic graphic and drawing techniques, including architectural graphics, building construction fundamentals, and methods of drawings considered prerequisite to architectural design.

ARCH 12 — Architectural Materials and Specifications **3 Units**
54 hours of lecture. Degree Appropriate, CSU

Advisory: Eligibility for MATH 51

Application and development of construction materials. Formulation of materials specification used in architecture and the construction industry.

ARCH 13 — Architectural Illustration **3 Units**
36 hours of lecture. Degree Appropriate, CSU, UC
72 hours of lab.

Advisory: ARCH 11 or equivalent experience

Architectural and interior illustration including perspective drawing, sketching, shades and shadows, entourage, and color application utilizing various media and development of project portfolio.

ARCH 14 — Building and Zoning Codes **3 Units**
54 hours of lecture. Degree Appropriate

Advisory: ARCH 11 or equivalent experience

Building and zoning codes, including code requirements related to architectural design and construction documentation. Process of obtaining design approvals and building permits from proper authorities having jurisdiction.

ARCH 15 — Architectural Working Drawings – I **3 Units**
36 hours of lecture. Degree Appropriate, CSU
72 hours of lab.

Advisory: ARCH 11, ARCH 12, ARCH 14, and eligibility for MATH 51

Methods and techniques used in the development of architectural construction documents for light frame structures (Type V construction) including construction theory, practice, and working drawings. Portfolio will be produced.

ARCH 16 — Basic CAD and Computer Application **4 Units**
(May be taken two times for credit.) Degree Appropriate, CSU, UC
54 hours of lecture.

54 hours of lab.

Advisory: Eligibility for MATH 51

Basic CAD (Computer Aided Design and Drafting) and computer application in architecture, engineering and related fields (including basic word processing, spreadsheet, CAD and presentation applications). Students who repeat this course will improve skills through further instruction and practice.

ARCH 18 — Architectural Computer Aided Design Elements **3 Units**
(May be taken two times for credit.) Degree Appropriate
36 hours of lecture.

72 hours of lab.

Advisory: ARCH 11, ARCH 16 or equivalent experience

Intermediate CAD (Computer Aided Design and Drafting) specifically for architectural design and production. Portfolio of 2-D drawings and 3-D CAD models will be produced. Students who repeat this course will improve skills through further instruction and practice.

ARCH 21 — Design II – Architectural Design **3 Units**
36 hours of lecture. Degree Appropriate, CSU
72 hours of lab.

Advisory: ARCH 10, ARCH 11, ARCH 13

Application of methods and theory used in architectural design projects. Includes graphic technique, design process, site analysis, presentation drawings and construction principles. Portfolio will be produced.

ARCH 23 — Architectural Presentations **3 Units**
36 hours of lecture. Degree Appropriate, CSU
72 hours of lab.

Advisory: ARCH 10, ARCH 11 taken prior

Analysis and preparation of architectural presentation projects, including schematic and final design, architectural models, oral presentation techniques, board layouts using hand-drawn and computer-aided techniques, and development of project portfolio.

ARCH 26 — Architectural CAD Working Drawings **3 Units**
(May be taken three times for credit.) Degree Appropriate
36 hours of lecture.

72 hours of lab.

Advisory: ARCH 15, ARCH 18 or equivalent experience

Advanced architectural CAD drawings. Portfolio of working drawing and presentation applications of integrated 2-D and 3-D CAD models will be produced. Students who repeat this course will improve skills through further instruction and practice.

ARCH 27 — Design III – Environmental Design **3 Units**
36 hours of lecture. Degree Appropriate, CSU, UC
72 hours of lab.

Advisory: ARCH 21, ARCH 23 or equivalent experience

Application of theory and principles of environmental design as applied to architecture, landscape architecture, urban design, urban planning and (civil) engineering. Portfolio will be produced.

ARCH 28 — Architectural CAD 3-D Illustration and Animation **3 Units**
(May be taken three times for credit.) Degree Appropriate, CSU
36 hours of lecture.

72 hours of lab.

Advisory: ARCH 18 or equivalent experience

Intermediate to advanced architectural CAD in 3-D illustration, rendering and animation. Virtual "walk-through" and "fly-through" of interior/exterior 3-D models with photo-realistic materials and lighting will be produced. Students who repeat this course will improve skills through further instruction and practice.

ARCH 29 — Design IV – Advanced Project **3 Units**
(May be taken two times for credit.) Degree Appropriate, CSU
36 hours of lecture.

72 hours of lab.

Advisory: ARCH 23, ARCH 27 or equivalent experience

Advanced design seminars and complex building design projects in architecture, including portfolio development. Students who repeat this course will improve skills through further instruction and practice.

ARCH 31 — World Architecture I **3 Units**
54 hours of lecture. Degree Appropriate, CSU

Development of architecture including ancient Egypt, Europe through the Middle Ages, and classic civilizations of Asia and the Americas. Influence of geography, religion, and socio-economic movements on architecture.

Course Descriptions

ARCH 32 — World Architecture II **3 Units**
54 hours of lecture. Degree Appropriate, CSU
Development of modern architecture from the Renaissance to the present day. Influence of environment, religion and socio-economic movements on architecture.

ARCH 89 — Architectural Work Experience **1 Unit**
(May be taken four times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
75 hours of lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog

This course is designed to provide actual on-the-job experience in architecture at an approved work site which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. This course is available to students achieving a minimum of 12 units in architecture. Students who repeat this course will improve skills through further instruction and practice.

ARCH 90 — Architectural Work Experience **2 Units**
(May be taken four times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
150 hours of lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog

This course is designed to provide actual on-the-job experience in architecture at an approved work site which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. This course is available to students achieving a minimum of 12 units in architecture. Students who repeat this course will improve skills through further instruction and practice.

ART HISTORY

AHIS 1 — Understanding the Visual Arts **3 Units**
Formerly ARTA Degree Appropriate, CSU, UC
54 hours of lecture.
Prerequisite: Eligibility for ENGL 68
Fundamentals of visual art forms and the role art plays in various historical periods and cultures. Students may not earn credit for both AHIS 1 and ARTB 1.

AHIS 1H — Understanding the Visual Arts – Honors **3 Units**
Formerly ARTA Degree Appropriate, CSU, UC
54 hours of lecture.
Prerequisite: Acceptance into the Honors Program

Fundamentals of visual art forms and the role art plays in various historical periods and cultures. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 1 (formerly ARTA 1) and AHIS 1H.

AHIS 2 — Topics in Visual Art and Culture **3 Units**
Formerly ARTA Degree Appropriate, CSU, UC
54 hours of lecture.
Advisory: Eligibility for ENGL 1A
A thematic introduction to selected works of art and visual culture, providing a framework for understanding the relationship between art and society and the differing ways art can be viewed. A global and/or interdisciplinary approach will be taken. Topics will vary with instructor.

AHIS 2H — Topics in Visual Art and Culture – Honors **3 Units**
Formerly ARTA Degree Appropriate, CSU, UC
54 hours of lecture.
Prerequisite: Acceptance into the Honors Program
A thematic introduction to selected works of art and visual culture, providing a framework for understanding the relationship between art and society and the differing ways art can be viewed. A global and/or interdisciplinary approach will be taken. Topics will vary with instructor. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS2 (formerly ARTA 2) and AHIS 2H.

AHIS 3 — History of Women and Gender in Art **3 Units**
Formerly ARTA Degree Appropriate, CSU, UC
54 hours of lecture.
Advisory: Eligibility for ENGL 1A
Survey of the roles of women and gender in cultural creation and production with a focus on the visual arts. A historical and global survey, covering the role of women artists in the history of art and the representation of gender in a variety of cultures and time periods.

AHIS 3H — History of Women and Gender in Art – Honors **3 Units**
Formerly ARTA Degree Appropriate, CSU, UC
54 hours of lecture.
Prerequisite: Acceptance into the Honors Program
Survey of the roles of women and gender in cultural creation and production with a focus on the visual arts. A historical and global survey, covering the role of women artists in the history of art and the representation of gender in a variety of cultures and time periods. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 3 (formerly ARTA 3) and AHIS 3H.

AHIS 4 — History of Western Art: Prehistoric Through Gothic **3 Units**
Formerly ARTA Degree Appropriate, CSU, UC
54 hours of lecture.
Prerequisite: Eligibility for ENGL 68
An examination of Western art from the Prehistoric through Gothic periods, demonstrating the relationship of various visual art forms to each other and to the cultural context in which they were produced.

AHIS 4H — History of Western Art: Prehistoric Through Gothic – Honors **3 Units**
Formerly ARTA Degree Appropriate, CSU, UC
54 hours of lecture.

Prerequisite: Acceptance into the Honors Program
Western art from the Prehistoric through Gothic periods demonstrating the relationship of various visual art forms to each other and to the cultural context in which they were produced. 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**
Formerly ARTA Degree Appropriate, CSU, UC
54 hours of lecture.
Western art from the Renaissance through Modern periods, demonstrating the relationship of various visual art forms to each other and to the cultural context in which they were produced.

AHIS 5H — History of Western Art: Renaissance Through Modern – Honors **3 Units**
Formerly ARTA Degree Appropriate, CSU, UC
54 hours of lecture.
Prerequisite: Acceptance into the Honors Program
Western art from the Renaissance through Modern periods demonstrating the relationship of various visual art forms to each other and to the cultural context in which they were produced. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 5 (formerly ARTA 5) and AHIS 5H.

AHIS 6 — History of Modern Art **3 Units**
Formerly ARTA Degree Appropriate, CSU, UC
54 hours of lecture.
Examines the artistic movements, influences, and individuals who have formed the Modern tradition. Emphasis is on the 20th century; the international and multicultural character of Modern art will be explored.

AHIS 6H — History of Modern Art – Honors **3 Units**
Formerly ARTA Degree Appropriate, CSU, UC
54 hours of lecture.
Prerequisite: Acceptance into the Honors Program
Examines the artistic movements, influences, and individuals who have formed the Modern tradition. Emphasis is on the 20th century; the international and multicultural character of Modern art will be explored. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 6 (formerly ARTA 6) and AHIS 6H.

AHIS 9 — History of Asian Art <i>Formerly ARTA</i> 54 hours of lecture. An examination of Asian artistic traditions. Major monuments of painting, sculpture, architecture and other visual art forms are studied within their religious and cultural contexts.	3 Units Degree Appropriate, CSU, UC
AHIS 11 — History of African, Oceanic, and Native American Art <i>Formerly ARTA</i> 54 hours of lecture. <i>Advisory: Eligibility for ENGL 1A</i> Examination of the traditional arts of African tribes and kingdoms, Oceania and Australia, and Native North America. Visual arts including painting, sculpture, architecture, body decoration, and ritual objects will be studied in their cultural contexts.	3 Units Degree Appropriate, CSU, UC
AHIS 12 — History of Precolumbian Art <i>Formerly ARTA</i> 54 hours of lecture. <i>Advisory: Eligibility for ENGL 68</i> 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.	3 Units Degree Appropriate, CSU, UC
AHIS 12H — History of Precolumbian Art – Honors <i>Formerly ARTA</i> 54 hours of lecture. <i>Prerequisite: Acceptance into the Honors Program</i> The arts of Pre-Columbian Mesoamerica and Andean South America. Major monuments of sculpture, painting, architecture, ceramics and textiles from civilizations including the Maya, Aztecs, and Inca will be examined in their cultural contexts. An honors course designed to provide an enriched experience. Students may not receive credit for both AHIS 12 (formerly ARTA 12) and AHIS 12H.	3 Units Degree Appropriate, CSU, UC
AHIS 99 — Special Projects in Art History <i>Formerly ARTA</i> (May be taken four times for credit.) (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lab. <i>Advisory: AHIS 1 (formerly ARTA 1)</i> To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer special projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.	2 Units Degree Appropriate, CSU

ART: ADVERTISING DESIGN/GRAPHICS	
ARTC 60 — Graphic Design: Lettering and Typography 36 hours of lecture. 72 hours of lab. <i>Prerequisite: Eligibility for ENGL 68</i> An entry level course emphasizing creative expression through a variation of design concepts, letter forms and style variation. Emphasis is placed on tools and techniques as applied to comprehensive graphic design images.	3 Units Degree Appropriate, CSU, UC
ARTC 66 — Portfolio 36 hours of lecture. 72 hours of lab. <i>Prerequisite: Completion of a minimum of 15 semester units in Advertising Design, Architectural Design, Art, Fashion Merchandising, Industrial Design, Interior Design or Photographics.</i> This course aids individuals from any of the visual art disciplines to assemble a portfolio, book, or package of works of art (that represents their individual development, interests and/or strengths) for use to enter a four-year institution, professional art school, or a professional field of choice.	3 Units Degree Appropriate
ARTC 70 — Computer Graphics: Introduction (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 72 hours of lab. Introduces basic art, design and color theory principles to the application of 2-dimensional computer graphics. Explores basic computer concepts applied to graphic projects utilizing a professional imaging software program: use of color scanner, digitized artist tablet, laser and color printers.	3 Units Degree Appropriate, CSU
ARTC 72A — Computer Graphics: 2-Dimensional Animation (May be taken two times for credit.) (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 72 hours of lab. <i>Prerequisite: ARTC 70</i> Explores methods of two-dimensional digital animation using a professional level animation application. Integration of cast members, script, score, behaviors, sound, and environments to create unique movies. Emphasis on design and animation principles synthesized with individual vision to create continuity and rhythm in animated sequences. Students who repeat this course will improve skills by further instruction and practice.	3 Units Degree Appropriate

ARTC 74 — Computer Graphics: Web Page Design Spring Semester (May be taken two times for credit.) 36 hours of lecture. 72 hours of lab. <i>Advisory: COMP 13 or COMP 14</i> Professional design concepts applied to the basic elements of Web page design and construction including: text entry, editing and formatting, graphics and multimedia, tables, forms and frames. Students who repeat this course will improve skills through further instruction and practice.	3 Units Degree Appropriate, CSU
ARTC 77 — Computer Graphics: Illustration (May be taken two times for credit.) 36 hours of lecture. 72 hours of lab. <i>Prerequisite: ARTD 15A and ARTC 70 or ANIM 104</i> Basic principles of art, design and color. Theory as applied to digital hand illustration will be explored and original illustrations created through use of professional illustration software. Students who repeat this course will improve skills by further instruction and practice.	3 Units Degree Appropriate
ARTC 161 — Graphic Design: Layout (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 72 hours of lab. <i>Prerequisite: ARTC 60</i> An introduction to the graphic design process with an emphasis on visual communication strategies that explore type and image, layout and design development, and the use of symbols related to the field of advertising and graphic design. The course uses various traditional media and layout design-related software to explore concept utilization and production, visualization, and professional presentation techniques.	3 Units Degree Appropriate, CSU
ARTC 165 — Illustration (May be taken two times for credit.) 36 hours of lecture. 72 hours of lab. <i>Corequisite: ARTD 20 or ARTD 15A or ANIM 104 or ARTD 17A or ANIM 101 (May have been taken previously)</i> Introduction to contemporary illustration with an emphasis on story, editorial, and advertising applications. Course covers the 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. Students who repeat this course will improve skills through further instruction and practice.	3 Units Degree Appropriate, CSU

Course Descriptions

ARTC 171 — Computer Graphics 2: Layout and Design with QuarkXpress **3 Units**

(May be taken two times for credit.) Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of lecture.
72 hours of lab.

Prerequisite: ARTC 70

An intermediate course in computer graphics that explores design issues in digital imaging systems used in the communication and publishing industry. Introduces page layout, and image processing in preparation of newsletters, brochures, posters, and advertising collateral. Emphasis is placed on clarity of communication, design and technical skills. Software: Adobe Photoshop, QuarkXpress, and Adobe InDesign. Students who repeat this course will improve skills by further instruction and practice.

ART: ANIMATION**ANIM 101 — Drawing – Gesture and Figure** **3 Units**

(May be taken four times for credit.) Degree Appropriate, CSU
36 hours of lecture.
72 hours of lab.

Explores contemporary and traditional approaches to sketching basic objects and the human figure using drawing techniques for rapid visualization. Emphasizes and develops perceptual and technical skills for capturing basic visual mechanics of motion and gesture. Students who repeat this course will improve skills through further instruction and practice.

ANIM 102 — Sculpture – Gesture **1 Unit**

(May be taken four times for credit.) Degree Appropriate
12 hours of lecture.
24 hours of lab.

Development of perceptual and technical skills in gestural sculpture. Emphasis will be on quick sculpting techniques capturing gesture and motion of human and other figures. Explores in sculpture the basic three-dimensional mechanics of motion and gesture. Students who repeat this course will improve skills through further instruction and practice.

ANIM 104 — Drawing Fundamentals **3 Units**

(May be taken two times for credit.) Degree Appropriate, CSU
36 hours of lecture.
72 hours of lab.

Emphasizes creative expression through the use of drawing media and techniques. Emphasis is placed on use of light logic, atmospheric and linear perspective. Includes basic drawing skills and methods of achieving compositional integrity through objective analysis and synthesis. Students who repeat this course will improve skills through further instruction and practice.

ANIM 105 — Two and Three Dimensional Figure Studies **1 Unit**

(May be taken four times for credit.) Degree Appropriate
12 hours of lecture.
24 hours of lab.

Development of perceptual and technical skills in two and three dimensional figure studies. Development of original drawings and sculptures based on human and animal forms and suitable as references for animation. Exploration of relationship of computer modeling to drawn and sculptured form. Students who repeat this course will improve skills by further instruction and practice.

ANIM 107 — Figure in Motion **3 Units**

(May be taken four times for credit.) Degree Appropriate
36 hours of lecture.
72 hours of lab.

Prerequisite: ANIM 101

Drawing human figures in motion. Anatomical landmarks, proportion, light and shadow, line composition, figure/ground relationship, the interaction of form and content, and the expressive potential of the human figure will be explored. Students who repeat this course will improve skills through further instruction and practice.

ANIM 108 — Principles of Animation **3 Units**

(May be taken four times for credit.) Degree Appropriate, CSU
36 hours of lecture.
72 hours of lab.

Fundamental principles of traditional animation mechanics and observing details for the creation of solid, three-dimensional line drawings for animation. Studies effects of the animation environment on the background, characters, and objects in a scene. Students who repeat this course will improve skills through further instruction and practice.

ANIM 109 — Advanced Principles of Animation **3 Units**

(May be taken four times for credit.) Degree Appropriate
36 hours of lecture.
72 hours of 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. Students who repeat this course will improve skills through further instruction and practice.

ANIM 111 — Animal Drawing **1.5 Units**

(May be taken two times for credit.) Degree Appropriate
18 hours of lecture.
36 hours of lab.

Prerequisite: ARTD 15A or ANIM 4 or ANIM 104

Explores both traditional and contemporary approaches to sketching and drawing animals. Gesture, anatomical structure, proportion, line and action analysis will be explored. Requires several off-campus field trips. Students who repeat this course will improve skills through further instruction and practice.

ANIM 115 — Storyboarding **3 Units**

(May be taken four times for credit.) Degree Appropriate
36 hours of lecture.
72 hours of lab.

Prerequisite: ARTD 15A or ANIM 104

Storyboarding for animation including script, idea and action development. Staging, expression, emotional appeal, camera movement, dialogue and character enhancement, and development will be included. Students who repeat this course will improve skills through further instruction and practice.

ANIM 116 — Character Development **1.5 Units**

(May be taken four times for credit.) Degree Appropriate
18 hours of lecture.
36 hours of lab.

Prerequisite: ARTD 15A or ANIM 104

Techniques for innovation and development of animated characters. Observation of details for drawings of character attitude, personality, movement, posing, point-of-view, dialog/mouth positions, body language, and development of consistent drawing techniques for model sheets. Students who repeat this course will improve skills through further instruction and practice.

ANIM 117 — Animation Background Layout **3 Units**

(May be taken four times for credit.) Degree Appropriate, CSU
36 hours of lecture.
72 hours of lab.

Prerequisite: ANIM 115 or ARTD 16

Basic principles of design and composition as applied to layout and background design for animation. Drawing and painting techniques exploring rendering, modeling, light logic, perspective, color, space and environments are included. Students who repeat this course will improve skills through further instruction and practice.

ANIM 118 — Background Painting **3 Units**

(May be taken three times for credit.) Degree Appropriate
36 hours of lecture.
72 hours of lab.

Analysis and production of environments for scenes in animation. Emphasis on the study of light logic and color as they pertain to the creation of atmosphere, mood and environments. Students who repeat this course will improve skills through further instruction and practice.

<p>ANIM 119 — Portfolio 1.5 Units (May be taken four times for credit.) Degree Appropriate 18 hours of lecture. 36 hours of lab. <i>Advisory: ANIM 115 and ANIM 116</i> Production of a portfolio representative of student interest, strength and skill for entry into animation fields, professional schools, or baccalaureate institutions. Selection of work for a portfolio will be determined by requirements of the animation specialty and institution to which it is directed. Students who repeat this course will improve their skills through further instruction and practice.</p>	<p>Advanced course exploring the animation techniques called dynamics. Covers building material for 3-D objects using bitmaps to create texture maps and using light effects in 3-D computer environments. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>ANIM 137C — Work Experience in New Digital Media 3 Units (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 225 hours of lab. <i>Advisory: Completion of the first and second semester of the Animation Program</i> This course is designed to provide actual on-the-job experience in Animation at an approved work site which is related to classroom instruction. A minimum of five hours per week of supervised work (60 non-paid clock hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>ANIM 120 — Script Development for Animation 3 Units (May be taken four times for credit.) Degree Appropriate 54 hours of lecture. Creative and problem solving processes as applied to story and script development. Scripts screenplays, live action and animated film, and the practical application of story adaptation to screenplay. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>ANIM 135 — Visual Effects II: Particle Systems 1.5 Units (May be taken four times for credit.) Degree Appropriate 18 hours of lecture. 36 hours of lab. <i>Advisory: ANIM 134</i> Advanced course in the creation of computer animated particle systems that imitate the natural forces of nature, the physical forces of the universe and plasma forces of combustion. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>ANIM 145 — Advanced 3-D Modeling 3 Units (May be taken four times for credit.) Degree Appropriate 36 hours of lecture. 72 hours of lab. <i>Advisory: ANIM 142 or ANIM 132</i> An advanced course in 3-D modeling with a focus on designing, modeling, and rigging a character for animation. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>ANIM 130 — Introduction to 3-D Computer Animation 3 Units (May be taken four times for credit.) Degree Appropriate 36 hours of lecture. 72 hours of lab. Explores 3-D computer animation interfaces, use of polygons, perspective views, contouring, links, external processors for special computer effects, and using the Alias MAYA software. 3-D modeling, rendering, and animation of primitive and complex poly-spline meshes used in environments, and following a storyboard developed for scene sequencing are included. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>ANIM 136 — Animation Environment Layout 3 Units (May be taken four times for credit.) Degree Appropriate 36 hours of lecture. 72 hours of lab. <i>Advisory: ANIM 132 or ANIM 142</i> Create computer animated environmental layout of a story to be animated. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>ANIM 146 — Advanced 3-D Animation 3 Units (May be taken four times for credit.) Degree Appropriate 36 hours of lecture. 72 hours of lab. <i>Advisory: ANIM 132 or 142</i> Animation of a pre-selected 3-D dynamic environment project and development of characteristics and personality of 3-D characters through animation. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>ANIM 132 — Modeling, Texture Mapping and Lighting 3 Units <i>Formerly ANIM 142</i> Degree Appropriate (May be taken four times for credit.) 36 hours of lecture. 72 hours of lab. <i>Advisory: ANIM 130</i> Explores 3-D poly-spline modeling and texture mapping and rendering for realistic perspective, reflections, transparency, and background and environmental building using the Alias MAYA software. Includes camera animation with stage and environmental scenes featuring fly-throughs and colored lighting effects. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>ANIM 137A — Work Experience in New Digital Media 1 Unit (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 75 hours of lab. <i>Advisory: Completion of the first and second semester of the Animation Program</i> This course is designed to provide actual on-the-job experience in Animation at an approved work site which is related to classroom instruction. A minimum of five hours per week of supervised work (60 non-paid clock hours or 75 paid clock hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>ANIM 148 — Demo-Reel 1.5 Units <i>Formerly ANIM 138</i> Degree Appropriate (May be taken four times for credit.) 18 hours of lecture. 36 hours of lab. <i>Prerequisite: ANIM 130</i> Production of a demo-reel representative of student interest, strength and skill for entry into animation fields, professional schools or baccalaureate institutions. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>ANIM 134 — Visual Effects I: Dynamics 1.5 Units (May be taken four times for credit.) Degree Appropriate 18 hours of lecture. 36 hours of lab. <i>Advisory: ANIM 132 or 142</i></p>	<p>ANIM 137B — Work Experience in New Digital Media 2 Units (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 150 hours of lab. <i>Advisory: Completion of the first and second semester of the Animation Program</i> This course is designed to provide actual on-the-job experience in Animation at an approved work site which is related to classroom instruction. A minimum of five hours per week of supervised work (60 non-paid clock hours or 75 paid clock hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>ANIM 172 — Motion Graphics with After Effects 3 Units (May be taken four times for credit.) Degree Appropriate (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 72 hours of lab. <i>Prerequisite: ARTC 70</i></p>

Course Descriptions

Explores the creative and technical processes for building motion-graphics using After Effects and/or other industry appropriate software. 2D and 3D compositing, animation, audio/visual effects, editing and rendering of motion-graphics for video, CD and DVD formats will be taught. Students who repeat this course will improve skills through further instruction and practice.

ANIM 175 — Web Animation with Flash **3 Units**
(May be taken two times for credit.) Degree Appropriate
36 hours of lecture.
72 hours of lab.

Prerequisite: ARTC 70

Basic principles and unique design considerations of animation for Webpage design will be explored and developed through use of professional Web animation software. Students who repeat this course will improve skills through further instruction and practice.

ART: BASIC STUDIO ARTS

ARTB 1 — Understanding the Visual Arts **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: Eligibility for ENGL 68
Fundamentals of visual art forms and the role art plays in various historical periods and cultures. Students may not earn credit for both ARTB 1 and AHIS 1.

ARTB 14 — Basic Studio Arts **3 Units**
36 hours of lecture. Degree Appropriate, CSU, UC
72 hours of lab.

Prerequisite: Eligibility for ENGL 68

An entry level course designed for non-art majors emphasizing creative expression through the visual arts. Painting, drawing, printmaking and sculpture are explored to introduce the student through various media to the arts.

ART: GALLERY & PROFESSIONAL PRACTICES

ARTG 20 — Intro Exhibition Design and Professional Practice **3 Units**
(May be taken two times for credit.) Degree Appropriate, CSU
36 hours of lecture.
72 hours of lab.

Provides knowledge and hands-on skills in exhibition design and installation to display an esthetically effective art exhibition. Students will be familiarized with the necessary practical knowledge used by an emerging artist; historical and contemporary terms, examination of cultural and universal symbology and application, issues, theories, movements, and media in the context of art exhibition productions. Students who repeat this course will improve skills through further instruction and practice.

ARTG 21A — Introduction to Exhibition Production **3 Units**
(May be taken two times for credit.) Degree Appropriate, CSU
36 hours of lecture.
72 hours of lab.

Prerequisite: ARTG 20

Designed to familiarize all art majors and serious artists with the concepts and hands-on applications of curatorial processes, management skills, and gallery operations. Explores the professional side of the arts, emphasizing contemporary art, theories and media. Students who repeat this course will improve skills through further instruction and practice.

ARTG 21B — Intermediate Exhibition Production **3 Units**
(May be taken two times for credit.) Degree Appropriate
36 hours of lecture.
72 hours of lab.

Prerequisite: ARTG 21A

Provides increasing responsibility in exhibition planning, research, operation and management. Focuses on art as a profession with emphasis on historical/contemporary terms, theories, movements and media in the context of an art exhibition production. Students who repeat this course will improve skills through further instruction and practice.

ARTG 22A — Exhibition Design and Art Gallery Operation **1 Unit**
Work Experience
(May be taken two times for credit.) Degree Appropriate
75 hours of lab.

Prerequisite: ARTG 20, ARTG 21A, ARTG 21B

Provides on-the-job experience in exhibition design and art gallery operation in an approved work site which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

ARTG 22B — Exhibition Design and Art Gallery Operation **2 Units**
Work Experience
(May be taken two times for credit.) Degree Appropriate
150 hours of lab.

Prerequisite: ARTG 20, ARTG 21A, ARTG 21B

Provides on-the-job experience in exhibition design and art gallery operation in an approved work site which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

ARTG 22C — Exhibition Design and Art Gallery Operation **3 Units**
Work Experience
(May be taken two times for credit.) Degree Appropriate
225 hours of lab.

Prerequisite: ARTG 20, ARTG 21A, ARTG 21B

Provides on-the-job experience in exhibition design and art gallery operation in an approved work site which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. It is recommended that the hours per week are equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

ART: SPECIAL STUDIO ARTS

ARTZ 50 — Specialized Studio-Art Studies **1 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU, UC
18 hours of lecture.
54 hours of lab.

Prerequisite: Satisfactory completion of all courses within a given art emphasis

Extended studio experiences supplementary to those available in the courses within a given art emphasis and allows the student to pursue more advanced and complex studio projects and experiments. Emphasis is placed upon the development of an individual creative direction. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.

ART: THREE-DIMENSIONAL STUDIO ARTS

ARTS 22 — Design: Three-Dimensional **3 Units**
(CAN ART 16) Degree Appropriate, CSU, UC
36 hours of lecture.
72 hours of lab.

Prerequisite: Eligibility for ENGL 68

Develops perception and enhances decision making within the three-dimensional world. Emphasis is placed on concept development and artistic expression utilizing principles and elements of three-dimensional design as well as practical experiments with various media.

ARTS 30A — Ceramics: Beginning **3 Units**
(CAN ART 6) Degree Appropriate, CSU, UC
36 hours of lecture.
72 hours of lab.

Entry-course emphasizing creative expression through the exploration of ceramics techniques. Emphasis on the vocabulary, theory, and analysis of the elements and principles of ceramics form through projects and oral/written criticism.

<p>ARTS 30B — Ceramics: Beginning 3 Units Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 72 hours of lab. <i>Prerequisite:</i> ARTS 30A Increases the various throwing skills and techniques developed in ARTS30A by the introduction of more involved techniques and use of larger masses of clay.</p>	<p>ARTS 41A — Sculpture: Life 3 Units Degree Appropriate, CSU, UC 36 hours of lecture. 72 hours of 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.</p>	<p>ARTD 15B — Drawing: Beginning 3 Units Degree Appropriate, CSU, UC 36 hours of lecture. 72 hours of lab. <i>Prerequisite:</i> ARTD 15A Drawing emphasizing further development of perceptual and technical skills attained in ARTD 15A. Students will advance their abilities in dry and fluid media, while expanding their use of the formal elements and principles in both representational and expressionistic styles.</p>
<p>ARTS 31A — Ceramics: Intermediate 3 Units Degree Appropriate, CSU, UC 36 hours of lecture. 72 hours of lab. <i>Prerequisite:</i> ARTS 30B Examines the problems of aesthetically integrating materials and design by means of advanced problems in the techniques of clay construction, glazing and firing.</p>	<p>ARTS 41B — Sculpture: Life 3 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC 36 hours of lecture. 72 hours of lab. <i>Prerequisite:</i> ARTS 41A Sculptural study of the human figure with emphasis on composition and human anatomy. Advanced projects using materials and techniques suitable for the human form. Students who repeat this course will further develop perceptual skills in clay modeling from the human figure.</p>	<p>ARTD 16 — Drawing: Perspective 3 Units Spring Semester Degree Appropriate, CSU, UC (May be taken two times for credit.) 36 hours of lecture. 72 hours of lab. <i>Prerequisite:</i> ARTD 15A or ANIM 104 Drawing using the elements and principles of linear perspective with lights and shadows to represent natural and fabricated forms. Emphasizes methods and techniques directly related to the artist's needs. Students who repeat this course improve skills through further instruction and practice.</p>
<p>ARTS 31B — Ceramics: Intermediate 3 Units Degree Appropriate, CSU, UC 36 hours of lecture. 72 hours of lab. <i>Prerequisite:</i> ARTS 31A Examines the problems of aesthetically integrating materials and design by means of advanced problems in the technique of clay construction, glazing and firing. Emphasis on firing procedures, stacking procedures and the variables of ceramic production.</p>	<p>ARTS 42 — Sculpture: Mold Making 3 Units (May be taken two times for credit.) Degree Appropriate (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 72 hours of lab. Construction and use of flexible and plaster molds. Students who repeat this course will improve skills by further instruction and practice.</p>	<p>ARTD 17A — Drawing: Life 3 Units (CAN ART 24) Degree Appropriate, CSU, UC 36 hours of lecture. 72 hours of lab. <i>Prerequisite:</i> ARTD 15A or ANIM 104 Explores both contemporary and traditional approaches to sketching/drawing the human figure. Anatomical landmarks and proportion, line, light and shadow, composition, negative and positive space, the interaction of form and content, and the expressive potential of the human figure with its psychological and emotional implications will be explored.</p>
<p>ARTS 33 — Ceramics: Hand Construction 3 Units Degree Appropriate, CSU, UC 36 hours of lecture. 72 hours of lab. <i>Prerequisite:</i> ARTS 30B Basic methods of hand construction. Special projects in structural, architectural and sculptural form.</p>	<p>ARTS 46 — Sculpture: Special Effects Makeup 3 Units (May be taken two times for credit.) Degree Appropriate (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 72 hours of lab. <i>Advisory:</i> ARTS 41 and/or ARTS 42 Modeling, molding, casting and application of special effects makeup appliances and masks to the human figure. Emphasis on human anatomy as it informs sculptural form and specialized molding and casting techniques and materials. Students who repeat this course will improve skills by further instruction and practice.</p>	<p>ARTD 17B — Drawing: Life 3 Units Degree Appropriate, CSU, UC 36 hours of lecture. 72 hours of lab. <i>Prerequisite:</i> ARTD 17A Extends and expands the principles and techniques introduced in ARTD 17A. More emphasis is placed on personal interpretation and individual expression.</p>
<p>ARTS 40A — Sculpture: Beginning 3 Units (CAN ART 12) Degree Appropriate, CSU, UC 36 hours of lecture. 72 hours of lab. An overview of traditional and contemporary approaches to sculpture. Emphasizes principles of sculptural design and concept development Includes exploration of technique and materials as an integral part of creative expression.</p>	ART: TWO-DIMENSIONAL STUDIO ARTS	
<p>ARTS 40B — Sculpture: Beginning 3 Units (May be taken two times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 72 hours of lab. <i>Prerequisite:</i> ARTS 40A Advanced projects in subtractive, additive and manipulative approaches are explored. Students who repeat this course will improve skills by further instruction and practice.</p>	<p>ARTD 15A — Drawing: Beginning 3 Units (CAN ART 8) Degree Appropriate, CSU, UC 36 hours of lecture. 72 hours of lab. An entry level course emphasizing creative expression through the use of drawing media. Emphasis is placed on basic drawing methods and skills, composition and exploration of drawing media.</p>	<p>ARTD 20 — Design: Two Dimensional 3 Units (May be taken two times for credit.) Degree Appropriate, CSU, UC 36 hours of lecture. 72 hours of lab. Development of perception through study of the relationships of two-dimensional dynamics and organization. Emphasis is placed on the vocabulary, theory, and analysis of the formal elements and principles of all forms of art through lecture, discussion, oral and written criticism and testing as they apply to studio projects in design for all disciplines of the arts. Study will emphasize the fundamental organization and workings of the two-dimensional picture plane in black/white and achromatic value and basic color mixing. Students who repeat this course will improve skills through further study and practice.</p>

Course Descriptions

ARTD 21 — Design: Color and Composition **3 Units**
(CAN ART 22) Degree Appropriate, CSU, UC
Spring Semester
(May be taken two times for credit.)
36 hours of lecture.
72 hours of lab.
Prerequisite: ARTD 20 or equivalency determined by a portfolio review
Synthesizes color theory and relationships of pigment and light. Emphasis will be placed on fundamental color harmonies, color matching, the effects of light, color perception and expression in their application to design and composition and as they are used in all other disciplines of the arts.

ARTD 23A — Drawing: Head and Hands **1.5 Units**
(May be taken two times for credit.) Degree Appropriate, CSU, UC
18 hours of lecture.
36 hours of 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. Students who repeat this course will improve skills through further instruction and practice.

ARTD 25A — Painting: Beginning **3 Units**
(CAN ART 10) Degree Appropriate, CSU, UC
36 hours of lecture.
72 hours of lab.
Emphasizes creative self-expression through the painting media. Students will develop the ability to conceptualize and solve compositional and technical painting problems.

ARTD 25B — Painting: Beginning **3 Units**
36 hours of lecture. Degree Appropriate, CSU, UC
72 hours of lab.
Prerequisite: ARTD 25A
An extension and expansion of principles and techniques introduced in 25A. More emphasis is placed on personal approach and individual expression.

ARTD 26A — Painting: Intermediate **3 Units**
36 hours of lecture. Degree Appropriate, CSU, UC
72 hours of lab.
Prerequisite: ARTD 25B
Develop a working knowledge of painting media. Painting problems are studied in order to broaden the student's knowledge of painting organization.

ARTD 26B — Painting: Intermediate **3 Units**
36 hours of lecture. Degree Appropriate, CSU, UC
72 hours of lab.
Prerequisite: ARTD 26A
Extends and expands the principles, techniques and painting problems that were introduced in ARTD 26A. More emphasis is placed on personal approach and expression.

ARTD 27 — Painting: Watercolor **3 Units**
(May be taken two times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of lecture.
72 hours of lab.
Prerequisite: ARTD 15A OR ARTD 20 OR ARTD 25A
Basic watercolor techniques as they relate to compositional and technical problems in painting. Emphasis is placed upon painting skills as related to transparent watercolor methods as well as exploration into opaque and mixed-media approaches. Students who repeat this course will improve skills through further instruction and practice.

ARTD 43 — Printmaking: Silk-Screen and Intaglio **3 Units**
(CAN ART 20) Degree Appropriate, CSU, UC
(ART 43 or ART 44 equals CAN ART 20)
(May be taken two times for credit.)
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of lecture.
72 hours of lab.
Prerequisite: ARTB 14, or ARTD 15A, or ARTD 17A, or ARTD 20
Techniques of making fine-art original prints using the processes of stencil and intaglio hand printing. Screen prints, etchings, and aquatints are emphasized as well as other related methods and new technologies. Students who repeat this course will improve skills through further instruction and practice.

ARTD 44 — Printmaking: Relief and Lithography **3 Units**
(CAN ART 20) Degree Appropriate, CSU, UC
ARTD 43 OR ARTD 44 = CAN ART 20
(May be taken two times for credit.)
36 hours of lecture.
72 hours of lab.
Prerequisite: ARTB 14 or ARTD 15A or ARTD 17A or ARTD 20
Development of the creative techniques of making fine art original prints using the processes of relief and planography hand printing. Woodcuts, linoleum cuts, monotypes, embossments, collographs, stone and aluminum plate lithography are explored. Students who repeat this course will improve skills through further instruction and practice.

ARTD 45 — Printmaking: Silk-Screening **3 Units**
(May be taken two times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of lecture.
72 hours of lab.
Prerequisite: ARTB 14 or ARTD 15A or ARTD 17A or ARTD 20
An intensive study in the use of silk-screening as an art form. Tusche-glue, direct block cuts, paper and lacquer stencils, and photographic method will be emphasized. Students who repeat this course will improve skills by further instruction and practice.

ASTRONOMY

ASTR 5 — Introduction to Astronomy **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: Eligibility for ENGL 1A
A non-technical survey of the Universe. Fundamental concepts and facts of astronomy. Topics include the origin and evolution of planets, stars, and galaxies; comets, meteorites, nebula; results of space exploration and modern cosmology. Student may enroll in ASTR 5 and ASTR 5L to receive laboratory science credit. Field trips may be required.

ASTR 5L — Astronomical Observing Laboratory **1 Unit**
Formerly ASTR 6 Degree Appropriate, CSU, UC
54 hours of lab.
Corequisite: ASTR 5 OR 7 OR 8 (May have been taken previously)
Provides practical experience in astronomy including use of telescopes and demonstrations in the college planetarium. Occasional evening observing sessions with the telescopes and other field trips are required.

ASTR 7 — Geology of the Solar System **3 Units**
54 hours of lecture. Degree Appropriate, CSU
A study of the Earth-like planets, satellites, and meteorites, from a geological point of view. Surveys geological methods and their application to the study of cratering, tectonic and volcanic activity, weathering, rock formation, landsliding, erosion, faulting, etc. Emphasis on solar system bodies other than Earth. Field trips may be required.

ASTR 8 — Introduction to Stars, Galaxies, and the Universe **3 Units**
54 hours of lecture. Degree Appropriate, CSU
Introduction to astronomy with emphasis on the structure and evolution of stars, galaxies, and the universe. Field trips required.

ASTR 90T — Topics in Astronomy **3 Units**
(May be taken four times for credit.) Degree Appropriate, CSU
54 hours of lecture.
Explores various topics of astronomy.

ASTR 99 — Special Projects in Astronomy **2 Units**
Spring Semester Degree Appropriate, CSU
(May be taken four times for credit.)
36 hours of lecture.
In order to offer selected students recognition for their academic interests and ability, and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Student must have instructor's authorization before enrolling in this class. Students who repeat this course will improve skills by further instruction and practice.

BIOLOGY			
<p>BIOL 1 — General Biology 4 Units 54 hours of lecture. Degree Appropriate, CSU, UC 54 hours of lab. <i>Prerequisite: Eligibility for ENGL 68</i> An introduction to the major principles and concepts of biology, including cellular biology, energy relationships, biological systems, heredity, evolution and ecology. BIOL 1 is recommended for non-majors. BIOL 4 is recommended for biology majors and those majors requiring a more rigorous biology background.</p>		<p>BIOL 4H — Biology for Majors – Honors 4 Units (CAN BIOL 2) Degree Appropriate, CSU, UC BIOL 4H + ZOOL 1 + BTNY 3 = CAN BIOL SEQ A 54 hours of lecture. 72 hours of lab. <i>Prerequisite: Acceptance into the Honors Program; CHEM 10 or one year of high school chemistry (C or better), AND MATH 71 or two years of high school algebra (C or better) or equivalent.</i> Explores core principles of biology required for advanced study, including concepts of cellular and molecular biology, bioenergetics, genetics, reproduction, evolution, biodiversity and ecology. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both BIOL 4 and BIOL 4H.</p>	<p>BIOL 12A — Natural History of California 3 Units Fall Semester Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. Field study of the natural history of the Sierra Nevada and adjacent regions. One 3 day and one 4 day weekend field trip will be required. Students may not receive credit for both BIOL 12A and GEOL 12A.</p>
<p>BIOL 2 — Plant and Animal Biology 4 Units 54 hours of lecture. Degree Appropriate, CSU, UC 54 hours of lab. <i>Prerequisite: BIOL 1 or BIOL 4; and MATH 71 or 2 years of high school algebra (C or better)</i> Basic structures and functions of plants and animals including concepts in systematics, evolution, physiology, ecology, and biotic relationships.</p>		<p>BIOL 5 — Contemporary Health Issues 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC Provides an overview of contemporary health issues known to affect the quality and longevity of life. Topics include: sexuality and reproduction, stress management, fitness and nutrition, substance use and abuse, and environmental quality. Emphasis is on prevention of illness and injuries. May satisfy the Health Education requirement for a California State Teaching Credential.</p>	<p>BIOL 12B — Natural History of California 3 Units Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. Field study of Peninsular Ranges, Transverse Ranges, Mojave and Colorado Deserts of southern California. Laboratory work is done during one 3-day and one 4-day weekend field trip. Students may not receive credit for both BIOL 12B and GEOL 12B.</p>
<p>BIOL 3 — Ecology and Field Biology 4 Units 54 hours of lecture. Degree Appropriate, CSU, UC 54 hours of lab. Identification and ecological relationships of common local plants and animals. Emphasizes evolutionary relationships; ecology including animal behavior, communities, ecosystems, wilderness and wildlife preservation, and population dynamics. Techniques of collecting and preserving. Many laboratory meetings conducted off campus; most trips require walking/ hiking. Includes one weekend or all day field trip.</p>		<p>BIOL 6 — Humans and the Environment 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: Eligibility for ENGL 68</i> Ecological concepts to aid understanding our environmental crisis and determining courses of action to correct the problem. Emphasis will be placed on specific problems of population, pollution, preservation of wildlife and wilderness, and open space. A historical appraisal of human attitudes toward the land and of the necessity of developing a new land ethic.</p>	<p>BIOL 13 — Human Reproduction, Development and Aging 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: Eligibility for ENGL 68</i> Provides a basic understanding of human development, from conception to death. Conception, growth, maturation and aging are studied as a natural continuum, influenced by our bio-physical and psycho-social environment. Several off-campus sites, related to course content, will be visited.</p>
<p>BIOL 4 — Biology for Majors 4 Units (CAN BIOL 2) Degree Appropriate, CSU, UC BIOL 4 + ZOOL 1 + BTNY 3 = BIOL SEQ A 54 hours of lecture. 54 hours of lab. 18 hours of activity. <i>Prerequisite: CHEM 10 or CHEM 40 or one year of high school chemistry (C or better), AND MATH 71 or two years of high school algebra (C or better) or equivalent</i> Examines core principles of biology required for advanced study, including concepts of cellular and molecular biology, bioenergetics, genetics, reproduction, evolution, biodiversity, and ecology. Includes one hour discussion group per week.</p>		<p>BIOL 6L — Humans and the Environment Laboratory 2 Units 108 hours of lab. Degree Appropriate, CSU, UC <i>Corequisite: BIOL 6 (May have been taken previously)</i> 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.</p>	<p>BIOL 15 — Human Sexuality 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: Eligibility for ENGL 68</i> A survey of the biological, behavioral, cultural and ethical aspects of human sexuality.</p>
		<p>BIOL 8 — Cell and Molecular Biology 4 Units 54 hours of lecture. Degree Appropriate, CSU, UC 54 hours of lab. <i>Prerequisite: BIOL 4 or BIOL 4H, and CHEM 50</i> Introduction to 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.</p>	<p>BIOL 15H — Human Sexuality – Honors 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: Acceptance into the Honors Program</i> A survey of the biological, behavioral, cultural and ethical aspects of human sexuality. An honors course designed to provide an enriched experience. Students may not receive credit for both BIOL 15 and BIOL 15H.</p>
			<p>BIOL 17 — Neurobiology and Behavior 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC An integrated analysis of the biological, ecological and evolutionary bases of behavior (ethology.) Historical and evolutionary contexts are emphasized through a detailed consideration of the psychobiological, ecological, ontological and sociobiological determinants of animal behavior. Field trips may be required.</p>

Course Descriptions

BIOL 20 — Marine Biology **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
An introduction to the marine environment including the principles of marine science, biology of marine invertebrates and vertebrates, structure and function of marine ecosystems, and human impact on the ocean. Field trip required.

BIOL 21 — Marine Biology Laboratory **1 Unit**
54 hours of lab. Degree Appropriate, CSU, UC
Corequisite: BIOL 20 (May have been taken previously)
An introduction to the field and laboratory aspects of the marine environment. Emphasizes the structure and functional biology of marine invertebrates and vertebrates, ecology of intertidal organisms and ecology of estuaries. Field trips required.

BIOL 99A — Special Projects in Biology **1 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU
18 hours of lecture.

In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor's authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to insure that proficiencies are enhanced.

BIOL 99B — Special Projects in Biology **2 Units**
(May be taken four times for credit.) Degree Appropriate, CSU
36 hours of lecture.

In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor's authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to insure that proficiencies are enhanced.

BOTANY

BTNY 3 — Plant Structures, Functions, and Diversity **5 Units**
(CAN BIOL 6) Degree Appropriate, CSU, UC
Spring Semester
BIOL 4 + ZOOL 1 + BTNY 3 = CAN BIOL SEQ A
54 hours of lecture.
108 hours of lab.
Advisory: BIOL 1 or BIOL 4. Eligibility for ENGL 1A. Completion of one year of high school chemistry (C or better) or equivalent.

An introduction to the structures, functions and comparative morphology, and phylogenetic relationships of organisms from bacteria to angiosperms with an emphasis on ethnobotany, evolution, classification, ecology and conservation. Several laboratory meetings are mandatory field trips, conducted off-campus, and students provide their own transportation.

BUSINESS: ACCOUNTING

BUSA 7 — Principles of Accounting – Financial **5 Units**
90 hours of lecture. Degree Appropriate, CSU, UC

Prerequisite: BUSA 11 or eligibility for MATH 51

Advisory: Eligibility for ENGL 1A

Introduction to financial accounting required of all Business Administration and Accounting majors which provides the foundation for continued coursework in accounting. Includes accounting concepts and techniques essential to the administration of a business enterprise, analyzing and recording financial transactions, accounting valuation and allocation practices and the preparation, analysis and interpretation of financial statements. Gives the student the tools and methods needed for decision making.

BUSA 8 — Principles of Accounting – Managerial **5 Units**
90 hours of lecture. Degree Appropriate, CSU, UC

Prerequisite: BUSA 7

Review of managerial accounting, job and process costing, cost-volume-profit analysis, cost behavior analysis and use, cost allocation, the budgeting process, responsibility accounting in a decentralized operation, standard costing, pricing decisions, relevant costs for decision making, segment reporting, variable costing, capital budgeting decisions, inventory management and analysis, and financial statement analysis. Gives the student the tools and methods needed for decision making.

BUSA 11 — Fundamentals of Accounting **3 Units**
54 hours of lecture. Degree Appropriate

Prerequisite: BUSA 68 or eligibility for MATH 50

Accounting vocabulary and theory, equations to solve word problems, percentages, simple and compound interest, payroll, business taxes, present value, investments, inventory, depreciation, financial statement analysis and ratios.

BUSA 21 — Cost Accounting **4 Units**
72 hours of lecture. Degree Appropriate

18 hours of lab.

Prerequisite: BUSA 8

Practical and theoretical concepts of cost accounting. Includes variable and fixed costs, cost-volume-profit analysis, job order and process costing, activity-based costing, general and flexible budgeting, standard costs, product costing/pricing methods, cost allocation, inventory management, capital budgeting, and transfer pricing.

BUSA 52 — Intermediate Accounting **3 Units**
54 hours of lecture. Degree Appropriate

Prerequisite: BUSA 8

Detailed review of basic accounting concepts and principles and an in-depth analysis of the balance sheet and income statement. Emphasis is placed on the changing nature of principles and practices, the application of present-value concepts, the complexity of transactions that arise in a complex economic environment and the use of accounting information in decision making.

BUSA 53 — Ten-Key Calculations **2 Units**
18 hours of lecture. Degree Appropriate

54 hours of lab.

Prerequisite: BUSA 68 or eligibility for MATH 50

Operation of electronic calculators by the touch method to solve business and accounting problems. Focuses on the application of calculator features to specific business concepts including banking records, payroll, invoice pricing and inventory.

BUSA 58 — Federal Income Tax Law **3 Units**
54 hours of lecture. Degree Appropriate

Prerequisite: BUSA 7 or BUSA 72

Federal and state income tax laws as related to individuals, partnership and corporation taxation including interpretations of recent changes. Emphasis is placed on individual income taxes and related problems in research through the use of a federal tax reporting service.

BUSA 68 — Business Mathematics **3 Units**
54 hours of lecture. Pre-Collegiate

Reviews addition, subtraction, multiplication, division, decimals, percentages, fractions, sign numbers, equations and problem solving.

BUSA 70 — Payroll and Tax Accounting **3 Units**
54 hours of lecture. Degree Appropriate

Prerequisite: Eligibility for BUSA 11

Examines all areas of on-the-job payroll accounting. Surveys the various tax procedures required by the employer and employee in filing the correct forms for Social Security, federal, and state income taxes and their reconciliation. Laws related to Worker's Compensation, State Disability Benefit Laws and Fair Employment Practices are discussed.

BUSA 71 — Financial Planning **3 Units**
54 hours of lecture. Degree Appropriate, CSU

Functional approach to personal finance, including budget systems, consumer credit, health care and insurance, debt collection systems, status obligation, accumulating reserves. Examines short-term and long-term financial goals. Applicable for personal and professional use. Students may not earn credit for both BUSA 71 and FCS 80.

BUSA 72 — Bookkeeping – Accounting **5 Units**
 90 hours of lecture. Degree Appropriate
Prerequisite: BUSA 68 or eligibility for MATH 50
 Fundamental bookkeeping and accounting principles including the accounting cycle for service and merchandising companies, cash management, payroll and special journals. Computerized simulations and completion of a practice set.

BUSA 75 — Using Microcomputers in Financial Accounting **1 Unit**
 18 hours of lecture. Degree Appropriate
Prerequisite: BUSA 7 or BUSA 72
 Application of basic accounting concepts utilizing a computerized ledger software program. Hands-on use of a microcomputer to process accounting transactions, prepare statements and reports, and complete accounting cycle tasks. Completion of a computerized accounting practice set will be required.

BUSA 76 — Using Microcomputers in Managerial Accounting **1 Unit**
 18 hours of lecture. Degree Appropriate
Prerequisite: BUSA 7 or BUSA 72
 Analyze financial data and prepare managerial accounting reports using Excel software. Development of “what-if” formulas to be used as an aid in decision-making. Manufacturing and consolidation worksheets, financial statement analysis, and statement of cash flows.

BUSA 81 — Work Experience in Accounting **1 Unit**
 (May be taken four times for credit.) Degree Appropriate
 (May be taken for Credit/No Credit only.)
 75 hours of lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Advisory: BUSA 7 or BUSA 72

Provides accounting students with actual on-the- job experience in an approved work site which is related to classroom-based learning. A minimum of 75paid 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.

BUSA 83 — Work Experience in Accounting **2 Units**
 (May be taken four times for credit.) Degree Appropriate
 (May be taken for Credit/No Credit only.)
 150 hours of lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Advisory: BUSA 7 or BUSA 72
 Provides accounting students with actual on-the- job experience in an approved work site which is related to classroom-based learning. A minimum of 75paid 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 their skills through further instruction and practice.

BUSA 84 — Work Experience in Accounting **3 Units**
 (May be taken four times for credit.) Degree Appropriate
 (May be taken for Credit/No Credit only.)
 225 hours of lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Advisory: BUSA 7 OR BUSA 72

Provides accounting students with actual on-the- job experience in an approved work site which is related to classroom-based learning. A minimum of 75paid 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.

BUSA 85 — Work Experience in Accounting **4 Units**
 (May be taken four times for credit.) Degree Appropriate
 (May be taken for Credit/No Credit only.)
 300 hours of lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Advisory: BUSA 7 or BUSA 72

Provides accounting students with actual on-the- job experience in an approved work site which is related to classroom-based learning. A minimum of 75paid 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: ECONOMICS

BUSC 1A — Principles of Economics – Macroeconomics **3 Units**
 (CAN ECON 2) Degree Appropriate, CSU, UC
 54 hours of lecture.
Prerequisite: Eligibility for ENGL 1A
 Principles of aggregate economic analysis; economic cycles including recession, unemployment, inflation and economic growth; national income accounts; money and financial institutions; monetary and fiscal policy; alternative economic viewpoint; budget deficits and public debts; international trade and finance.

BUSC 1AH — Principles of Economics – Macroeconomics – Honors **3 Units**
 (CAN ECON 2) Degree Appropriate, CSU, UC
 54 hours of lecture.
Prerequisite: Acceptance into the Honors Program
 Principles of aggregate economic analysis; economic cycles including recession, unemployment, inflation and economic growth; national income accounts; money and financial institutions; monetary and fiscal policy; alternative economic viewpoint; budget deficits and public debts; international trade and finance. An honors course designed to provide an enriched experience. Students may not receive credit for both BUSC 1A and BUSC 1AH.

BUSC 1B — Principles of Economics – Microeconomics **3 Units**
 (CAN ECON 4) Degree Appropriate, CSU, UC
 54 hours of lecture.
Prerequisite: BUSC 1A or BUSC 1AH
 Economic analysis with emphasis on price and distribution theory, scarcity, opportunity costs, supply, demand, elasticity; cost theory; price and output determination under various market structures; factor markets; public choice; income distribution; externalities and government regulation; comparative economic systems.

BUSC 1BH — Principles of Economics – Microeconomics – Honors **3 Units**
 (CAN ECON 4) Degree Appropriate, CSU, UC
 Spring Semester
 54 hours of lecture.
Prerequisite: BUSC 1A or BUSC 1AH
 Economic analysis with emphasis on price and distribution theory, scarcity, opportunity costs, supply, demand, elasticity; cost theory; price and output determination under various market structures; factor markets; public choice; income distribution, externalities and government regulations; comparative economic systems. An honors course designed to provide an enriched experience. Students may not receive credit for both BUSC 1B and BUSC 1BH.

BUSC 17 — Applied Business Statistics **3 Units**
 Fall Semester Degree Appropriate, CSU, UC
 54 hours of lecture.
Prerequisite: MATH 71 or four semesters of high school algebra (C or better) in the last two semesters
 Statistical reasoning and application of primary statistical techniques used in solving managerial problems. Topics include: collection and interpretation of data, measures of central tendency and dispersion, probability distributions, sampling and estimation, hypothesis testing, analysis of variance, linear regression and correlation and index numbers.

BUSINESS: LAW

BUSL 18 — Business Law **3 Units**
 (CAN BUS 8) Degree Appropriate, CSU, UC
 54 hours of lecture.
Prerequisite: Eligibility for ENGL 68
 Principles of business law emphasizing legal setting of business, nature of the law and court procedure, principles of contract law, sales of goods under the Uniform Commercial Code, personal property, bailments, and secured transactions.

Course Descriptions

<p>BUSL 18H — Business Law – Honors 3 Units (CAN BUS 8) Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite: Acceptance into the Honors Program</i> Principles of business law emphasizing legal setting of business, nature of the law and court procedure, principles of contract law, sales of goods under the Uniform Commercial Code, personal property, bailments, and secured transactions. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both BUSL 18 and BUSL 18H.</p>	<p>BUSL 33A — Civil Procedure Pretrial 3 Units 54 hours of lecture. Degree Appropriate <i>Corequisite: BUSL 30 (May have been taken previously)</i> Analysis of the pre-trial procedural steps to litigating a cause of action. Examines the concepts of jurisdiction, venue, parties to the action, summons, default judgments, and pleadings.</p>	<p>BUSL 38 — Employment and Ethical Issues in Paralegalism 2 Units 36 hours of lecture. Degree Appropriate <i>Prerequisite: BUSL 31A, BUSL 33A, BUSL 35A</i> <i>Corequisite: BUSL 31B, BUSL 33B, BUSL 35B, BUSL 37, BUSL 39 (May have been taken previously)</i> Job search skills including preparation of professional resumes and cover letters; interviewing techniques; networking; application of these skills in beginning the search for paralegal employment; paralegal and attorney ethics.</p>
<p>BUSL 19 — Advanced Business Law 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Advisory: BUSL 18</i> Second semester principles of business law emphasizing commercial paper, agency, partnerships, corporations, bankruptcy, regulation of trade and real property.</p>	<p>BUSL 33B — Civil Procedure-Trial and Post-Trial 3 Units 54 hours of lecture. Degree Appropriate <i>Prerequisite: BUSL 33A</i> Preparing for litigation. Includes discovery, preparation of law and motion documents, remedies, summary judgments, motions to dismiss, settlements, and arbitration.</p>	<p>BUSL 39 — Contract Law 3 Units 54 hours of lecture. Degree Appropriate Laws relating to the formation of contracts. Includes study of the statute of frauds, third-party rights, liability for breach of contract, remedies, discharge, and the Uniform Commercial Code.</p>
<p>BUSL 20 — International Business Law 3 Units 54 hours of lecture. Degree Appropriate <i>Advisory: Eligibility for ENGL 68</i> A comparative approach to the study of the international legal environment for business. Cultural, political, economic and ethical issues are emphasized as well as traditional business law subjects such as sales, commercial paper, corporate law, agency, licensing, employment, crimes, trade regulation and technology transfers.</p>	<p>BUSL 35A — Law Office Procedures 3 Units 54 hours of lecture. Degree Appropriate <i>Advisory: BUSL 30</i> Examines procedures utilized by a paralegal in a law office. Includes knowledge of court systems, preparation and filing of legal papers and court documents, and drafting specialized documents in such areas as estate planning, real estate, divorce, unlawful detainer, adoption, corporations, conservatorships and guardianships.</p>	<p>BUSL 40 — Landlord-Tenant Law 3 Units 54 hours of lecture. Degree Appropriate Landlord-tenant law and creation of legal documentation to represent the landlord-tenant relationship. Examination of the rights and liabilities of the landlord and the tenant.</p>
<p>BUSL 30 — Introduction to Paralegal/Legal 3 Units 54 hours of lecture. Degree Appropriate, CSU Basic knowledge required of paralegals: An overview of the federal and state legal systems, the relationship of paralegals to attorneys, an introduction to legal writing and research investigation of claims and legal ethics.</p>	<p>BUSL 35B — Automated Law Office Procedures 3 Units 54 hours of lecture. Degree Appropriate <i>Prerequisite: BUSL 35A</i> <i>Corequisite: BUSL 30 (May have been taken previously)</i> <i>Advisory: CISB 15 or equivalent computer experience</i> Use of the personal computer for special purposes in the law office; includes the drafting of pleadings, legal research, document control, preparation of billing, law office and case load management, and tax reports.</p>	<p>BUSL 41 — Property Law 3 Units 54 hours of lecture. Degree Appropriate Examination of the law relating to real and personal property. Analysis of the various forms of ownership of real property; easements, covenants, conditions, and licenses; constitutional questions; types of real estate deeds; and land use controls.</p>
<p>BUSL 31A — Legal Analysis and Writing 3 Units 54 hours of lecture. Degree Appropriate <i>Corequisite: BUSL 30 (May have been taken previously)</i> Use of a law library for legal research and references; reading and analyzing codes and statutes, preparation of case briefs and research reports.</p>	<p>BUSL 36 — Paralegal Internship 1 Unit (May be taken two times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 90 hours of lab. <i>Prerequisite: BUSL 31A, BUSL 33A, and BUSL 35A</i> <i>Corequisite: BUSL 31B, BUSL 33B, BUSL 35B, BUSL 37, BUSL 39 (May have been taken previously)</i> Designed to provide the student with actual on-the-job experience in the paralegal profession which relates to student's classroom based learning. Placement is not guaranteed but assistance is provided by the paralegal faculty. A minimum of five hours per week of supervised work (minimum 75 paid clock hours or 60 non-paid clock hours per semester) is required. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>BUSL 42 — Family Law 3 Units 54 hours of lecture. Degree Appropriate Laws relating to marriage, dissolution, nullity, and legal separation. Includes topics of community property, child custody, child support, spousal support, and prenuptial/antenuptial agreements.</p>
<p>BUSL 31B — Advanced Legal Analysis and Writing 3 Units 54 hours of lecture. Degree Appropriate <i>Prerequisite: BUSL 30 and BUSL 31A</i> Preparation of research memoranda, trial briefs, appellate briefs and other paralegal documents. Continuation of BUSL 31A, Legal Analysis and Writing.</p>	<p>BUSL 37 — Tort Law 3 Units 54 hours of lecture. Degree Appropriate 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.</p>	<p>BUSL 43 — Wills and Trusts 3 Units 54 hours of lecture. Degree Appropriate Fundamental principles of the laws of wills and trusts, organization and jurisdiction of the California Probate Courts, estate planning and estate taxes.</p>
		<p>BUSL 44 — Bankruptcy Law 3 Units 54 hours of lecture. Degree Appropriate Creation, scope, and administrative function of federal bankruptcy proceedings and arrangements. Includes wage earner plans and insolvency proceedings.</p> <p>BUSL 45 — Creditors' Rights 3 Units 54 hours of lecture. Degree Appropriate Creation, perfection, and enforcement of security interests in property; unsecured creditors and their methods of enforcing rights; and obtaining judgments.</p>

<p>BUSL 47A — Litigation Procedures 3 Units (May be taken two times for credit.) Degree Appropriate 54 hours of lecture. Overview of litigation procedures. Description of a trial and trial presentations are emphasized. Students will prepare opening statements, direct and cross examinations, and closing statements. Elements of oral argument are examined. Methods of responding to questioning are analyzed. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>BUSM 12 — Continuous Quality Improvement Team Building 3 Units (May be taken for option of letter grade or Credit/No Credit.) Degree Appropriate 54 hours of lecture. <i>Advisory: BUSM 10</i> Comprehensive instruction in building and using Continuous Quality Improvement project teams including selection of team members and evaluation of team performance. Includes creating and evaluating problem solutions, applying tools for improvement planning, team decision making, and building an effective improvement plan.</p>	<p>BUSM 60 — Human Relations in Business 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Prerequisite: Eligibility for ENGL 68 or BUSO 5</i> 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.</p>
<p>BUSL 47B — Litigation Practice 1.5 Units (May be taken two times for credit.) Degree Appropriate 27 hours of lecture. <i>Corequisite: BUSL 47A (May have been taken previously)</i> A continuation of Litigation Procedures where students will present a case and evaluate the effectiveness of their presentation. Continuous revision of arguments based on presented opposing arguments will be emphasized. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>BUSM 20 — Principles of Business 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: Eligibility for ENGL 68</i> Study of business and its functions, background, development, organization, and opportunities. Business terms, current trends, methods, contemporary and future problems, and current business practices are covered.</p>	<p>BUSM 61 — Business Organization and Management 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Advisory: BUSM 20</i> 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.</p>
<p>BUSL 48 — Criminal Law and Procedures 3 Units 54 hours of lecture. Degree Appropriate, CSU General principles of criminal law and procedure; elements of crimes against person and property; parties to a crime; defenses to crimes; analysis of procedural law relating to arrest, search and seizure, rights to counsel and a jury, evidentiary issues, sentencing and appeal.</p>	<p>BUSM 25 — Principles of E-Commerce 3 Units 54 hours of lecture. Degree Appropriate <i>Advisory: Eligibility for ENGL 68 or BUSO 5</i> A hands-on course focusing on learning the principles of E-commerce through the use of the internet. Students study the economic importance of E-commerce domestically and internationally. Includes uses of the internet, consumer buying, retail and business purchases, Internet marketing, digital advertising, global E-commerce and business Web sites.</p>	<p>BUSM 62 — Human Resource Management 3 Units 54 hours of lecture. Degree Appropriate <i>Prerequisite: Eligibility for ENGL 68 or BUSO 5</i> 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.</p>
<p>BUSL 49 — Evidence Law 3 Units 54 hours of lecture. Degree Appropriate Overview of evidence law in civil and criminal cases; principles of relevance and competence of evidence; hearsay and character evidence rules; evidentiary privileges; use and authentication of writings; use of evidence at trial; burdens of proof and presumptions; constitutional issues.</p>	<p>BUSM 50 — World Culture: A Business Perspective 3 Units 54 hours of lecture. Degree Appropriate, CSU An overview of the effects of culture on business communication and interaction. Cultural roles and components are described and related to the business environment and the student's own culture. World physical geography is surveyed, along with the cultural topics and demographics of each area.</p>	<p>BUSM 66 — Small Business Management 3 Units 54 hours of lecture. Degree Appropriate Practical problems encountered in organizing and operating a small business enterprise. Included are units in initiating the business, financial and administrative control, legal and government relationships and other related considerations.</p>
<p>BUSL 50 — Comparative Law 3 Units 54 hours of lecture. Degree Appropriate <i>Advisory: Eligibility for ENGL 1A</i> A comparison of the traditions and legal systems of various nations. Specific legal concepts and principles relating to areas of business, substantive law, and procedural law are compared to illustrate and distinguish those systems from the American system. Ethical, language, and management issues are considered with regard to doing business abroad.</p>	<p>BUSM 51 — Principles of International Business 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Advisory: Eligibility for ENGL 68 or BUSO 5</i> An overview of the rapidly changing international business environment, designed to provide a global perspective. Introduces global viewpoints across the full spectrum of business functions, including, but not limited to: accounting, finance, human resources, management, operations, production, purchasing, and strategic planning.</p>	<p>BUSM 81 — Work Experience in Business 1 Unit (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 75 hours of lab. <i>Corequisite: BUSM 20 (May have been taken previously)</i> 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.</p>
BUSINESS: MANAGEMENT		
<p>BUSM 10 — Principles of Continuous Quality Improvement 3 Units 54 hours of lecture. Degree Appropriate <i>Advisory: Eligibility for ENGL 68 or BUSO 5</i> 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.</p>	<p>BUSM 52 — Principles of Exporting and Importing 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Advisory: Eligibility for ENGL 68 or BUSO 5</i> Acquaints the student with the vocabulary, acronyms and the basic information needed for an understanding of and participating in the exporting and importing of goods and services.</p>	

Course Descriptions

BUSM 82 — Work Experience in Business **2 Units**
(May be taken four times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
150 hours of lab.

Corequisite: BUSM 20 (May have been taken previously)

Provides business students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid 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 by the business faculty. Students who repeat this course will improve skills through further instruction and practice.

BUSM 83 — Work Experience in Business **3 Units**
(May be taken four times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
225 hours of 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 or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. Work Experience placement is not guaranteed but assistance is provided by the business faculty. Students who repeat this course will improve skills through further instruction and practice.

BUSM 84 — Work Experience in Business **4 Units**
Spring Semester Degree Appropriate
(May be taken four times for credit.)
(May be taken for Credit/No Credit only.)
300 hours of lab.

Corequisite: BUSM 20 (May have been taken previously)

Provides business students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. Work Experience placement is not guaranteed but assistance is provided by the business faculty. Students who repeat this course will improve skills through further instruction and practice.

BUSM 85 — Special Issues in Business **2 Units**
Spring Semester Degree Appropriate
(May be taken two times for credit.)
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of lecture.

Provide business majors with a forum to gain knowledge, develop techniques, problem solve and implement an actual business plan. Special emphasis will be placed on the particular project of the actual business used as the class project. Students who repeat this course will improve skills through further instruction and practice.

BUSINESS: OFFICE TECHNOLOGY

BUSO 5 — Business English **3 Units**
(May be taken two times for credit.) Degree Appropriate
54 hours of lecture.

Prerequisite: Eligibility for ENGL 68 or BUSO 5

Thorough training in the skills and techniques of English, as applied to business situations, with emphasis on effective paragraphs and memos. Students who repeat this course will improve skills by further instruction and practice.

BUSO 25 — Business Communications **3 Units**
54 hours of lecture. Degree Appropriate, CSU

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.

BUSO 26 — Oral Communications for Business **3 Units**
Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)

54 hours of lecture.

Designed to help business people communicate more effectively in spoken communication situations such as training sessions, presentations, and professional discussions.

BUSO 96A — Business Vocabulary **1.5 Units**
Degree Appropriate

(May be taken for option of letter grade or Credit/No Credit.)
27 hours of lecture.

Develops a broad word command of new and specialized business vocabulary for use in various businesses. Improves vocabulary to enhance written and oral communication.

BUSO 98A — Office Professional Seminar **1 Unit**
(May be taken for Credit/No Credit only.) Degree Appropriate
18 hours of lecture.

Prerequisite: BUSO 1 and BUSO 5 and BUSO 65, plus COMP 12 or COMP 16
Corequisite: BUSO 98B

Advisory: BUSO 68 and BUSM 60, plus COMP 20 OR COMP 26

A capstone class for students preparing for an office professional career. Students share and critique experiences emphasizing professionalism and problem-solving techniques related to internship experience.

BUSO 98B — Office Professional Internship **1 Unit**
(May be taken for Credit/No Credit only.) Degree Appropriate
75 hours of lab.

Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog

Provides the student with actual on-the-job experience in the office professional field which relates to student's classroom-based learning. Placement is not guaranteed, but assistance is provided by Office Technology faculty. 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.

BUSINESS: REAL ESTATE

BUSR 50 — Real Estate Principles **3 Units**
54 hours of lecture. Degree Appropriate, CSU

Introductory real estate law, public control, property valuation, finance and real estate practice. Meets some of the California Real Estate Salesperson and Broker License requirements and meets 30 hours toward Basic Appraisal Procedures 2008 Appraiser Qualifications Board (AWB) requirements for certified-residential/certified-general appraiser license. Also provides 30 hours toward office of real estate Appraisers (OREA) requirements for state licensing.

BUSR 51 — Legal Aspects of Real Estate **3 Units**
54 hours of lecture. Degree Appropriate

Prerequisite: BUSR 50 or employment in the real estate field

Real estate contracts, leases, deeds, foreclosures, homesteads, agency, and disclosures. Can be used to meet the additional educational requirements for the salesperson or broker license.

BUSR 52 — Real Estate Practice **3 Units**
54 hours of lecture. Degree Appropriate

Prerequisite: BUSR 50 or employment in the real estate field

Office procedures and practices in listings, advertising, prospecting, financing, exchanges, property management, salesmanship, land utilization and public relations. A course in real estate practice must be completed within 18 months of licensure.

BUSR 52D — Real Estate Practice Work Experience **4 Units**
(May be taken two times for credit.) Degree Appropriate

300 hours of lab.

Prerequisite: BUSR 50 and not possessing a permanent California real estate license at time of enrollment

Corequisite: Student must be enrolled in 7 units minimum, including the work experience units.

Provides a minimum of 240 hours of on-site real estate office and/or field work experience under the supervision of a licensed California real estate professional and a college instructor/coordinator. Designed to satisfy Department of Real Estate licensing requirements serving as an equivalent to BUSR 52. Students who repeat this course will improve their skills through further instruction and practice.

BUSR 53 — Real Estate Finance **3 Units**
54 hours of lecture. Degree Appropriate

Prerequisite: BUSR 50 or employment in the real estate field

Real estate financing sources, loans underwriting, applications, and appraisals. Can be used to meet the additional education requirement of the salesperson or broker license.

<p>BUSR 54 — Real Estate Appraisal 3 Units 54 hours of lecture. Degree Appropriate <i>Prerequisite:</i> BUSR 50 or employment in the real estate field Introductory topics in real estate appraisal. Real estate appraisal course must be completed to take the Office of Real Estate Appraisers (OREA) exam. Can also be used to meet the additional education requirement for a sales or broker license.</p>	<p>BUSR 60 — Real Estate Investment Planning 3 Units 54 hours of lecture. Degree Appropriate <i>Prerequisite:</i> BUSR 50 or employment in the real estate field A comprehensive analysis of various investment strategies, techniques, systems, and theories involving all forms of real estate with particular emphasis on research methods needed for successful investing.</p>	<p>BUSS 35 — Professional Selling 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Prerequisite:</i> 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.</p>
<p>BUSR 54SE — Standards, Ethics and Statistics for Professional Practice 1.5 Units 27 hours of lecture. Degree Appropriate <i>Prerequisite:</i> BUSR 54 or employment in the real estate field Meets 27 hours towards the license and certification requirements of the Office of Real Estate Appraisers (OREA). Emphasizes appraisal standards, professional ethics, application of statistics to real property valuation, and use of income and expense analysis to develop operating expense ratios.</p>	<p>BUSR 62 — Mortgage Loan Brokering and Lending 3 Units Fall Semester Degree Appropriate 54 hours of lecture. <i>Prerequisite:</i> BUSR 50 or employment in the real estate field Overview of the technical knowledge of the State and Federal laws that govern the practice of mortgage loan brokerage and lending in the State of California as well as mortgage lending history and process.</p>	<p>BUSS 36 — Principles of Marketing 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Prerequisite:</i> 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.</p>
<p>BUSR 55 — Real Estate Economics 3 Units 54 hours of lecture. Degree Appropriate <i>Prerequisite:</i> BUSR 50 or employment in the real estate field Analysis of international, national and local factors which determine the value of real estate. Meets California real estate license requirements for salesperson and broker.</p>	<p>BUSR 66 — General Appraiser Report Writing and Case Studies 3 Units 54 hours of lecture. Degree Appropriate <i>Prerequisite:</i> BUSR 50 or employment in the real estate/appraisal field <i>Advisory:</i> BUSR 56 Appraisal cases from all areas of real estate transactions with emphasis on cash flow estimates, measures of cash flow, internal rate of return, and discounted cash flow analysis for non-residential properties. Designed to meet 54 hours toward 2008 Appraiser Qualification Board (AWB) requirements for certified-residential/certified-general appraiser license. Also meets Office of Real Estate Appraisers (OREA) licensing requirements.</p>	<p>BUSS 50 — Retail Store Management and Merchandising 3 Units 54 hours of lecture. Degree Appropriate, CSU Principles and practices used in the management and merchandising of retail stores. Includes all aspects of the critical buying function, merchandising, promotional techniques, site selection, layout, staffing, market positioning and customer service. Students may not receive credit for both FASH 62 and BUSS 50.</p>
<p>BUSR 56 — Advanced Real Estate Appraisal 3 Units Spring Semester Degree Appropriate 54 hours of lecture. <i>Prerequisite:</i> BUSR 54 Appraisal of residential apartment buildings, small office buildings, shopping centers, and industrial buildings. Designed to meet 54 hours toward Office of Real Estate Appraisers (OREA) requirements for certificate-residential/certificate-general appraisal requirements. Meets California real estate broker license requirements.</p>	<p>BUSR 76 — Escrow Procedures I 3 Units 54 hours of lecture. Degree Appropriate A case study method of escrow procedures including processing of sale escrows with and without new trust deed financing; learning and using the vocabulary of escrow; drawing of documents; and other processing details pertinent to handling escrows from inception to closing.</p>	<p>BUSS 70 — International Marketing Concepts 3 Units 54 hours of lecture. Degree Appropriate <i>Prerequisite:</i> BUSR 36 Factors unique to foreign economics, cultural environments, political/legal problems, marketing intelligence procedures, international product policy, distribution and market channels, promotion, and pricing decisions.</p>
<p>BUSR 57 — Income Tax Aspects of Real Estate Investments 3 Units 54 hours of lecture. Degree Appropriate Current income tax principles governing the acquisition, ownership, operation and disposition of real property investments with special emphasis on tax planning and integration of tax concepts with procedural aspects. Meets California real estate license requirements for broker.</p>	<p>BUSR 77 — Escrow Procedures II 3 Units 54 hours of lecture. Degree Appropriate <i>Prerequisite:</i> BUSR 76 and BUSA 68 or appropriate score on math placement test Advanced escrow procedures covering the more unusual and difficult types of escrows and evaluating the possible solutions. Emphasis on practical processing of real estate sale and loan transactions with some personal property sales. Designed to assist those either directly or indirectly connected with the escrow industry.</p>	<p>BUSS 79 — Work Experience in Marketing Management 1 Unit (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 75 hours of lab. <i>Prerequisite:</i> BUSR 33 or BUSS 35 or BUSS 36 or BUSS 50 and compliance with Work Experience regulations as designated in the College Catalog Provides marketing students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work Experience placement is not guaranteed but assistance is provided by the business faculty. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>BUSR 59 — Real Estate Property Management 3 Units 54 hours of lecture. Degree Appropriate <i>Prerequisite:</i> BUSR 50 Property management for owners and managers of residential and commercial income properties. Meets California real estate license requirements for salesperson and broker.</p>	BUSINESS: SALES, MERCHANDISING & MARKETING	
<p>BUSS 33 — Advertising and Promotion 3 Units 54 hours of lecture. Degree Appropriate, CSU Characteristics and role of advertising and promotion in business are explored. Emphasis is placed on promotional mix, trend and forecast research, and developing a comprehensive multimedia promotion plan including advertising layout and copy. Students may not receive credit for both BUSS 33 and FASH 63.</p>		

Course Descriptions

BUSS 80 — Work Experience in Marketing Management 2 Units
(May be taken four times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
150 hours of lab.

Prerequisite: BUSS 33 or BUSS 35 or BUSS 36 or BUSS 50 and compliance with Work Experience regulations as designated in the College Catalog
Provides marketing students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work Experience placement is not guaranteed but assistance is provided by the business faculty. Students who repeat this course will improve skills through further instruction and practice.

BUSS 81 — Work Experience in Marketing Management 3 Units
(May be taken for Credit/No Credit only.) Degree Appropriate
225 hours of lab.

Prerequisite: BUSS 33 or BUSS 35 or BUSS 36 or BUSS 50 and compliance with Work Experience regulations as designated in the College Catalog
Provides marketing students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work Experience placement is not guaranteed but assistance is provided by the business faculty. Students who repeat this course will improve skills through further instruction and practice.

BUSS 82 — Work Experience in Marketing Management 4 Units
(May be taken four times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
300 hours of lab.

Prerequisite: BUSS 33 or BUSS 35 or BUSS 36 or BUSS 50 and compliance with Work Experience regulations as designated in the College Catalog
Provides marketing students with actual on-the-job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work Experience placement is not guaranteed but assistance is provided by the business faculty. Students who repeat this course will improve skills through further instruction and practice.

BUSS 85 — Special Issues in Marketing 2 Units
Fall Semester Degree Appropriate
(May be taken two times for credit.)
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of lecture.

Prerequisite: BUSS 33 or BUSS 35 or BUSS 36 or BUSS 50

Provides marketing majors with a forum to gain knowledge, develop techniques, problem solve, and implement an actual business marketing plan. Special emphasis will be placed on the particular project of the actual business used as the class project. Students who repeat this course will improve skills through further instruction and practice.

CHEMICAL TECHNOLOGY

CHMT 1 — Introduction to Chemical Laboratory Technology 3 Units
36 hours of lecture. Degree Appropriate
54 hours of lab.

Prerequisite: CHEM 10 or one year of high school chemistry (C or better)
A survey of chemical laboratory professional and ethical responsibilities, aspects of environmental health and safety, safe handling of chemicals, data collection, data presentation, and strategies for quality improvement. Group projects and case studies will be used to illustrate specific aspects of the course. May include field trips.

CHMT 5 — Elementary Principles of Chemical Processing 2 Units
36 hours of lecture. Degree Appropriate, CSU

Prerequisite: CHEM 50
Fundamental theories of industrial chemical processing. Includes mass transfer, heat transfer, real time instrument measurement, water treatment, materials of construction and corrosion, separation by solubility, distillation, mixing systems and chemical reactions.

CHMT 8 — Work Experience in Chemical Technology 1 Unit
(May be taken four times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
75 hours of lab.

Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Provides Chemistry Technology 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.

CHMT 9 — Work Experience in Chemical Technology 2 Units
(May be taken four times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
150 hours of lab.

Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Provides Chemistry Technology 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.

CHEMISTRY

CHEM 10 — Chemistry for Allied Health Majors 4 Units
(CAN CHEM6) Degree Appropriate, CSU, UC
CHEM 10 + 20 = CAN CHEM SEQ B
54 hours of lecture.

72 hours of lab.
Prerequisite: MATH 51 or MATH 59 or one year of high school algebra (C or better)

Principles of inorganic chemistry including measurements, structure, nomenclature, reactions, radioactivity, energy, properties of matter, acids/bases and solutions. For Allied Health majors such as nursing, dental hygiene, radiation technology. Completion does not give eligibility for CHEM 50.

CHEM 20 — Introductory Organic and Biochemistry 5 Units
(CAN CHEM 8) Degree Appropriate, CSU, UC

CHEM 10 + 20 = CAN CHEM SEQ B
54 hours of lecture.
108 hours of lab.

Prerequisite: CHEM 10 or CHEM 40
Nomenclature, structure, function and reactions of major classes of organic compounds and of biomolecules, including amino acids, lipids, carbohydrates, nucleic acids and proteins. Structure and function of vitamins, coenzymes and enzymes. Metabolic pathways and biochemical energy.

CHEM 40 — Introduction to General Chemistry 4 Units
54 hours of lecture. Degree Appropriate, CSU
72 hours of lab.

Prerequisite: MATH 51 or MATH 59 or one year of high school algebra ("C" or better)

Advisory: Eligibility for ENGL 1A
Introduction to measurements, structure and properties of matter, writing/balancing equations, stoichiometry, properties and behavior of gases, and properties of solutions. For science/ engineering majors preparing for admission into General Chemistry (CHEM 50.)

CHEM 50 — General Chemistry I 5 Units
(CAN CHEM 2) Degree Appropriate, CSU, UC

CHEM 50 + 51 = CAN CHEM SEQ A
54 hours of lecture.
108 hours of lab.

Prerequisite: (1) One year high school chemistry with minimum "C" grade each semester; (2) Satisfactory score on Chemistry Placement Examination; (3) Grade of "C" or better in second-year algebra (may not be taken concurrently with CHEM 50.) Successful completion of CHEM 40 will satisfy the first and second prerequisites.

Topics in general chemistry such as scientific method, measurements, nomenclature, formulas and equations, reaction patterns, stoichiometry, thermodynamic processes, periodic trends, atomic structure, molecular bonding and geometry, properties of gases, liquids, solids and solutions. Emphasis is on critical thinking and mathematical problem-solving

using dimensional analysis. Hands-on laboratory experiments use computer and calculator-based technologies in data acquisition and analysis. Introduces techniques of scientific writing.

CHEM 50H — General Chemistry I – Honors **5 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
108 hours of lab.

Prerequisite: Acceptance into the Honors Program. Also, (1) one year high school chemistry with minimum "C" grade each semester; (2) satisfactory score on Chemistry Placement Test; (3) grade of "C" or better in second-year algebra (may not be taken concurrently with CHEM 40 will satisfy the first and second prerequisites.

Topics in general chemistry such as scientific method, measurements, nomenclature, formulas and equations, reaction patterns, stoichiometry, thermodynamic processes, periodic trends, atomic structure, molecular bonding and geometry, properties of gases, liquids, solids and solutions. Emphasis is on critical thinking and mathematical problem-solving using dimensional analysis. Hands-on laboratory experiments use computer and calculator-based technologies in data acquisition and analysis. Introduces techniques of scientific writing. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both CHEM 50 and CHEM 50H.

CHEM 51 — General Chemistry II **5 Units**
(CAN CHEM 4) Degree Appropriate, CSU, UC
CHEM 50 + 51 = CAN CHEM SEQ A
54 hours of lecture.
108 hours of lab.

Prerequisite: CHEM 50 or CHEM 50H

The application of the laws, theories and principles presented in CHEM50 to a variety of chemical systems. Topics include kinetics, equilibrium, thermodynamics, acid-base and oxidation-reduction reactions, transition metals, electrochemistry and nuclear chemistry. Emphasis is on critical thinking and mathematical problem-solving. Laboratory experiments use computer and calculator-based technologies in data acquisition and analysis.

CHEM 58 — Essential Skills for Chemistry **1 Unit**
Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
18 hours of lecture.

Designed for students who are apprehensive about and/or wish to improve their skills in General Chemistry. Includes development of a study plan, test strategies, preparing for the laboratory, data collection, graphical analysis and drawing conclusions.

CHEM 60 — Quantitative Chemical Analysis **5 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
108 hours of lab.
Prerequisite: CHEM 51

Techniques of gravimetric, volumetric and instrumental analysis. Precision in measurements, computations, accurate record keeping and report writing. General procedures, skills, methods, practices, philosophies, terminologies and ethics found in industrial, governmental and academic laboratories.

CHEM 75 — Instrumental Analysis **5 Units**
54 hours of lecture. Degree Appropriate
108 hours of lab.

Prerequisite: CHEM 51

Introduction to a variety of instruments used in chemical industries. Includes theory, hands-on experience and basic maintenance of chemical instrumentation.

CHEM 80 — Organic Chemistry **5 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
108 hours of lab.

Prerequisite: CHEM 51

Designed for chemistry, biochemistry, chemical engineering and biology majors; also for those in pre-professional programs such as medicine, veterinary medicine, dentistry, optometry and pharmacy. Structure/reactivity relationships, energetics, reactions, reaction mechanisms, synthesis, separation, characterization and spectroscopic methods for organic compounds. To assure that all content material is covered, it is recommended that students complete the entire one-year sequence at one campus prior to transfer.

CHEM 81 — Organic Chemistry **5 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
108 hours of lab.

Prerequisite: CHEM 80

Continuation of CHEM 80. Designed for chemistry, biochemistry, chemical engineering and biology majors; also for those in pre-professional programs such as medicine, veterinary medicine, dentistry, optometry and pharmacy. Structure/reactivity relationships, energetics, reactions, reaction mechanisms, synthesis, separation, characterization and spectroscopic methods. Structure, synthesis and representative reactions of carbohydrates, lipids and proteins.

CHEM 99 — Special Projects in Chemistry **2 Units**
(May be taken two times for credit.) Degree Appropriate, CSU
36 hours of lecture.

In order to offer students the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester, and depend on the particular project under consideration. Students must have an instructor's authorization before enrolling in this class. Students repeating this course will make individual contracts of a more advanced nature to ensure that proficiencies are enhanced.

CHILD DEVELOPMENT

CHLD 1 — Child, Family and Community **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC

Prerequisite: Eligibility for ENGL 68

Child development is presented as the interaction and collaboration between children, parents, family, school and community. Studies of family systems in contemporary society as they impact children and their individual heritage, diverse culture, ability and language. Explores the value of communication, the development of child advocacy skills and the ability to use community resources to empower families and children.

CHLD 5 — Principles/Practices in Child Development Programs **3 Units**

54 hours of lecture. Degree Appropriate, CSU
Overview of early child development programs: their histories, philosophies and emphasis; methods of guidance and discipline, licensing and regulations for state, federal and private programs. Reviews philosophies of educating young children and learning, while examining developmentally appropriate practices, including the influence of culture and inclusive environments on the developing child. Explores career paths, professional growth, and ethics. Student assignments involve ten hours outside of class time observation and participation in children's programs.

CHLD 6 — Survey of Child Development Curriculum **3 Units**
54 hours of lecture. Degree Appropriate, CSU

Prerequisite: CHLD 5 or CHLD 10

Overview of curriculum design for early childhood programs, including planning, implementation and evaluation of curriculum, and observing the interaction of play and development of the whole child. Organization of materials, curriculum areas, and resources are explored.

CHLD 10 — Child Growth and Development **3 Units**
(CAN FCS 14) Degree Appropriate, CSU, UC

54 hours of lecture.
Developmental approach to the study of the child identifying forces affecting growth processes from conception through adulthood. Meets requirements for Title 22 and Title V Regulations pertaining to Child Development Permit. Out-of-class observations and interviews required. TB test required.

CHLD 10H — Child Growth and Development – Honors **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC

Prerequisite: Acceptance into the Honors Program
Developmental approach to the study of the child identifying forces affecting growth processes from conception through adulthood. Meets requirements for Title 22 and Title V Regulations pertaining to Child Development Permit. Out-of-class observations and interviews required. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both CHLD 10 and CHLD 10H. TB test required.

Course Descriptions

CHLD 50 — Multicultural Education: Anti-Bias Perspective 3 Units
54 hours of lecture. Degree Appropriate
Advisory: CHLD 1

Current approaches to diversity in the early childhood setting. Students will create culturally relevant and inclusive teaching environments while fostering the goals of anti-bias curriculum. An emphasis is placed on addressing issues of bias that children and families experience on a daily basis in our society and recognizing effective and respectful handling of bias.

CHLD 51 — Early Literacy in Child Development 3 Units
54 hours of lecture. Degree Appropriate
Advisory: CHLD 61

Examines the developmental continuum of literacy from birth through early childhood. Considerations of cultural and linguistic diversity are applied to the study of how children become competent in all areas of language. An appreciation of the importance of interaction and cooperation between home and school underlies the exploration of language and literacy acquisition. Issues of early literacy in public policy are reviewed.

CHLD 61 — Language Arts and Art Media for Young Children 3 Units
54 hours of lecture. Degree Appropriate

Language and literacy development of young children (0 to 6 years) is explored through developmentally appropriate activities, language study, games and play. Describes the role of creative art in the curriculum in relationship to the child's development and creativity. Emphasizes ways to develop an inclusive culturally and linguistically appropriate learning environment which encourages the child's use of senses and builds an awareness of aesthetic materials.

CHLD 62 — Music and Motor Development for Young Children 3 Units

54 hours of lecture. Degree Appropriate, CSU
Exploration of the role of music and movement in a child's development. Emphasizes students development in practical activities including making music, movement, singing and musical instruments.

CHLD 63 — Creative Sciencing and Math for Young Children 3 Units
54 hours of lecture. Degree Appropriate

Advisory: Eligibility for ENGL 68
Exploration of children's thinking processes and problem solving abilities as they become aware of the physical world. Discussion, planning, and creating basic science and math experiences. Emphasizes creative aspects of math and science.

CHLD 64 — Health, Safety and Nutrition of Young Children 3 Units
54 hours of lecture. Degree Appropriate

Examines the relationship between a child's health status, safe learning environments, and proper nutrition. Emphasizes the adult role in preventative health care, legal and ethical reporting of abuse, assisting families to access community services while supporting family practices from diverse populations. Includes universal health precautions, evaluate center/agency policies with licensing requirements, and food program service with guidelines for food handling.

CHLD 66 — Early Childhood Development Observation 2 Units
36 hours of lecture. Degree Appropriate, CSU

Prerequisite: CHLD 5 and CHLD 10 or CHLD 10H
Corequisite: CHLD 66L (May have been taken previously)
Provides the student with the importance of observation of children's behavior and its significance in understanding child development principles. Focus will be on the interaction of the preschool child with the environment and with significant people.

CHLD 66L — Early Childhood Development Observation Laboratory 1 Unit

54 hours of lab. Degree Appropriate, CSU
Corequisite: CHLD 66
Provides the student with an understanding of child development through observations in the laboratory school. The holistic approach to child study is emphasized. Students use information which they have recorded and relates to different areas of the preschool child's interaction with environment and significant people.

CHLD 67 — Early Childhood Development Participation 2 Units
36 hours of lecture. Degree Appropriate, CSU

Prerequisite: CHLD 6 and CHLD 66
Corequisite: CHLD 67L
Application of knowledge of child development principles in the preschool children's classroom setting and recognition of skills necessary for the teacher of young children. Evaluation of participation experiences.

CHLD 67L — Early Childhood Development Participation Laboratory 1 Unit

63 hours of lab. Degree Appropriate, CSU
Corequisite: CHLD 67
Teaching experiences in the preschool children's classroom related to creating environment, managing program, preparing materials, planning and carrying out activities for individual children and groups of children.

CHLD 68 — Children with Special Needs 3 Units
54 hours of lecture. Degree Appropriate, CSU

Prerequisite: CHLD 10 or CHLD 10H
Characteristics of the needs of typically and atypically developing children in areas of cognitive, physical, neurological, emotional and social development. Identifies legal requirements, current issues, community

resources and the IEP/IFSP process. Emphasizes modifications, adaptations, accommodations and teaching techniques involved in the inclusive classroom. Required observations in community agencies.

CHLD 69 — Early Childhood Development Field Work Seminar 2 Units

36 hours of lecture. Degree Appropriate
Prerequisite: CHLD 67, CHLD 67L
Corequisite: CHLD 91
Selected topics pertinent to problems of students placed in community sites. Topics include philosophical orientation, curriculum, parent involvement, staff relations, professionalism and professional growth, and will involve study, discussion and research.

CHLD 71A — Administration of Child Development Programs 3 Units
54 hours of lecture. Degree Appropriate, CSU

Advisory: CHLD 1, CHLD 5, CHLD 6, CHLD 10 or CHLD 10H, or experience as an Administrator of a Children's Program
History of the education of children in context of their care and development, laws governing children's programs in California, and goals of childhood development. The administrator's job description, program budget, personnel selection and standards, records and reports, and staff policies are included.

CHLD 71B — Management/Marketing/Personnel for ECD Programs 3 Units

54 hours of lecture. Degree Appropriate
Prerequisite: CHLD 71A
Strategic planning for ECD programs, including financial administration, budgeting and marketing. Investigates basic financial/data management programs; examines personnel management practices designed to facilitate director/administrator/staff relationships; and explores staff development strategies and techniques employed in creative teaching methods.

CHLD 72 — Teacher, Parent, and Child Relationships 3 Units
54 hours of lecture. Degree Appropriate

Comprehensive examination of child/parent/teacher relationships to better understand family dynamics and to recognize influences in the child development setting. Theories of sequential changes in parent/child/school relations within the large social context. Strategies dealing with issues that emerge when working with children and their families in the school setting.

CHLD 73 — Infant/Toddler Care and Development 3 Units
54 hours of lecture. Degree Appropriate, CSU

Advisory: CHLD 10 or CHLD 10H
Caregivers and parents learn developmentally appropriate practices for infants and toddlers applicable to families and group care, environmental planning, and developing relationships between diverse families and staff. Student assignments involve up to ten hours of observations and participation with infants and toddlers outside of class time.

CHLD 74 — Program Planning for the School Age Child 3 Units
Degree Appropriate

54 hours of lecture.

Advisory: CHLD 10 or CHLD 10H

Integrates principles of child development related to working with the school-age child. Program planning and legal requirements for school-age programs are emphasized. Explores age-appropriate discipline and conflict resolution. Develops activity planning consistent with school-age content standards. Student assignments will include observations of school-age programs.

CHLD 75 — Supervising Adults in Early Childhood Settings 2 Units
Degree Appropriate

36 hours of lecture.

Advisory: CHLD 1 and CHLD 5

Methods and principles of working with and supervising adults in the early childhood setting. Emphasis is on the role of the experienced children's teacher who functions as a model and mentor to new teachers as s/he addresses the needs of children, parents and staff.

CHLD 81 — Current Curriculum Models in ECD 1 Unit
Non-Degree Credit

(May be taken two times for credit.)

(May be taken for option of letter grade or Credit/No Credit.)

18 hours of lecture.

Provides students with a working knowledge of a specific curriculum model being used in preschools in the community. Origins, practices in classroom, pros and cons of model and evaluation methods will be included. Model covered will change with course offerings.

CHLD 82 — Advocacy in Early Childhood Development 1 Unit
Degree Appropriate

(May be taken two times for credit.)

(May be taken for option of letter grade or Credit/No Credit.)

18 hours of lecture.

Clarifies current issues in ECD on which teachers need to work with their administration and parents. Develops skills in advocacy for children. Students who repeat this course will improve skills by further instruction and practice.

CHLD 83 — Current Issues in Child Development 1 Unit
Degree Appropriate

(May be taken four times for credit.)

(May be taken for option of letter grade or Credit/No Credit.)

18 hours of lecture.

Advisory: CHLD 5, CHLD 10 or CHLD 10H

Provides students with a working knowledge of current research in child development and helps them apply that research to their programs and teaching. Issues covered will change with course offerings. Students who repeat this course will improve skills through further instruction and practice.

CHLD 84 — Guidance and Discipline in Child Development Settings 1 Unit
Degree Appropriate

18 hours of lecture.

Advisory: CHLD 5

Problem solving approach to guidance and discipline of children in child development settings. Investigation of appropriate developmental and attitudinal aspects of producing a respectful environment between children, caregivers and parents.

CHLD 85 — Infants At Risk 3 Units
Degree Appropriate

54 hours of lecture.

*Prerequisite: CHLD 64 and CHLD 73**Advisory: CHLD 5*

Principles and methods of working with infants and toddlers who are disabled or at-risk in the early childhood setting. Emphasis is placed on issues affecting normal development prevention, intervention, referrals and transition to school. Course will prepare teachers of young children for appropriate planning in these settings.

CHLD 91 — Early Childhood Development Field Work 1 Unit
Degree Appropriate

(May be taken for Credit/No Credit only.)

75 hours of lab.

A teacher-supervised work experience course which permits students to apply early childhood development principles in community preschools. CHLD 69 Seminar will supplement student's progress. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester.

CHLD 92 — Family Child Care 3 Units
Degree Appropriate

54 hours of lecture.

Advisory: CHLD 1, 5, 6 and 10

An overall view of home-based early education programs which includes standards of quality for the field of family child care in relationships, environments, activities, developmental learning goals, safety/health, professional and business practices.

CHINESE**CHIN 1 — Elementary Chinese** 4 Units
Degree Appropriate, CSU, UC

(CAN CHIN 2)

CHIN 1+2 = CAN CHIN SEQ A

72 hours of lecture.

Intended for students without previous exposure to Chinese. Begins to develop the ability to converse, read, and write in Mandarin Chinese. Includes the study of essentials of pronunciation, vocabulary, idioms, and grammatical structures along with an introduction to Chinese culture.

CHIN 2 — Continuing Elementary Chinese 4 Units
Degree Appropriate, CSU, UC

(CAN CHIN 4)

CHIN 1+2 = CAN CHIN SEQ A

72 hours of lecture.

Prerequisite: CHIN 1 or equivalent

Further develops conversational, reading, and writing skills in Mandarin Chinese with special emphasis on verbs, grammar, and extension of vocabulary.

CHIN 3 — Intermediate Chinese 4 Units
Degree Appropriate, CSU, UC

(CAN CHIN 8)

Spring Semester

72 hours of lecture.

Prerequisite: CHIN 2 or equivalent

Further development of Mandarin Chinese language skills and their use as tools in exploring Chinese civilization. Further study and review of grammar, exercises in word building, derivation, and the extension of the active and recognition vocabularies.

CHIN 4 — Continuing Intermediate Chinese 4 Units
Degree Appropriate, CSU, UC

72 hours of lecture.

Prerequisite: CHIN 3 or equivalent

Enables students to use Mandarin in traveling, telling stories, describing experiences and discussing Chinese literary works, festivals and food. Students learn advanced grammar such as the directional and potential complements, repetition of adjectives, the focus construction, the ba and bei structures.

CHIN 35 — Chinese Language Laboratory .5 Unit
Degree Appropriate, CSU

(May be taken four times for credit.)

(May be taken for Credit/No Credit only.)

27 hours of lab.

Prerequisite: Concurrent or previous enrollment in Chinese

An independent study laboratory course for students who wish to improve their skills in Mandarin Chinese. May supplement any other Chinese course. Requires 24 hours in the language laboratory to receive credit. Students who repeat this course will improve skills through further practice and drill.

COMPUTER & NETWORKING TECHNOLOGY**CNET 50 — PC Servicing** 4 Units
Degree Appropriate

54 hours of lecture.

54 hours of lab.

Advisory: ELEC 50B taken prior or concurrently

PC and peripheral servicing techniques, preventative maintenance, hardware configurations, software configurations, software diagnostics, and the use of test equipment.

Course Descriptions

<p>CNET 52 — PC Operating Systems 4 Units 54 hours of lecture. Degree Appropriate 54 hours of lab. <i>Advisory: CNET 50 taken prior</i> Current operating systems required for A+ and Network+ Certification and general computer servicing. Topics include: identification of major components, installation, configuration, upgrading and troubleshooting.</p>	<p>CNET 66 — Security + Certification Preparation 3 Units Spring Semester Degree Appropriate (May be taken two times for credit.) 54 hours of lecture. <i>Advisory: CNET 56 taken prior</i> 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.</p>	<p>COMP 10 — Operating the Macintosh Computer 1.5 Units Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 27 hours of lecture. Basic skills and in-depth practice operating the Apple Macintosh computer. Includes introduction to the operating system, paint, draw, word-processing, database, spreadsheet, and multi-media applications.</p>
<p>CNET 54 — PC Troubleshooting 4 Units 54 hours of lecture. Degree Appropriate 54 hours of lab. <i>Advisory: CNET 50 taken prior</i> Advanced microcomputer servicing. Includes: isolating, identifying, and repairing specific problems in the computer environment at the hardware level. Prepares students for the A+ Certification Exam.</p>	<p style="text-align: center;">COMPUTER APPLICATIONS</p> <p>COMP 1 — Computer Keyboarding 4 Units 54 hours of lecture. Degree Appropriate, CSU 54 hours of lab. Develops basic alpha/numeric keyboarding skills on a personal computer; develops a straight-copy rate of 25 to 40 gross words a minute with a predetermined error limit; includes keyboarding of letters, tables and manuscripts.</p>	<p>COMP 11 — Internet Research for Business 2 Units Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 27 hours of lecture. 27 hours of lab. <i>Advisory: COMP 10 or CISB 13</i> Practical hands-on instruction using the Internet for research in a business environment. Master Internet-specific research techniques, discover timesaving tips for locating and managing information, and use the entire Internet, newsgroups, FTP (File Transfer Protocol) and mailing lists.</p>
<p>CNET 56 — Computer Networks 4 Units 54 hours of lecture. Degree Appropriate 54 hours of lab. <i>Advisory: CNET 54 taken prior</i> Standards, terminology, design, implementation and troubleshooting techniques as they relate to both Local and Wide Area Networks. Emphasis on hardware and software components, network architecture and data transmission methods. Of special interest to computer and network technicians and those seeking certification in A+, Network+, or other MSCE certifications.</p>	<p>COMP 1A — Computer Keyboarding 2 Units Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 27 hours of lecture. 27 hours of lab. Develops basic alpha/numeric keyboarding with skills on a personal computer; develops a straight-copy rate of 25 to 30 gross words a minute with a predetermined error limit.</p>	<p>COMP 12 — Office Computer Applications 4 Units Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. 54 hours of lab. In depth study of computer applications utilized in the office environment. Includes extensive hands-on instruction in word processing, spreadsheet, data management, and business graphics. Intended for the student who needs to upgrade or acquire office computer skills.</p>
<p>CNET 60 — A+ Certification Preparation 3 Units (May be taken two times for credit.) Degree Appropriate 54 hours of lecture. <i>Advisory: CNET 54</i> 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.</p>	<p>COMP 1B — Computer Keyboarding 2 Units 27 hours of lecture. Degree Appropriate, CSU 27 hours of lab. <i>Advisory: COMP 1A or BUSO 1A, or ability to type 20 wpm with test verification at first class meeting</i> Develops a straight-copy rate of 25 to 40 gross words a minute with a predetermined error limit and includes keyboarding of letters, tables, and manuscripts.</p>	<p>COMP 13 — Using Web Page Software 4 Units Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. 54 hours of lab. <i>Advisory: COMP 10 or COMP 12 or CISB 13 or CISB 15</i> Using industry leading Web page authoring software to plan, develop, and publish effective professional Web sites. Includes working with text and graphics; creating hyperlinks; creating tables and layers; collecting data with forms; adding multimedia objects; creating and applying cascading style sheets; creating interactions and behaviors; publishing a Web site.</p>
<p>CNET 62 — Network+ Certification Preparation 3 Units (May be taken two times for credit.) Degree Appropriate 54 hours of lecture. <i>Advisory: CNET 56</i> 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.</p>	<p>COMP 2 — Intermediate Computer Keyboarding 4 Units 54 hours of lecture. Degree Appropriate 54 hours of lab. <i>Prerequisite: COMP 1 or COMP 1B or BUSO 1 or BUSO 1B, or one year of high school keyboarding</i> Develops computer keyboarding speed and accuracy with a proficiency standard upon completion of 35- 55 gross words a minute with a predetermined error limit. Using word processing software, extensive instruction given for formatting of letters, memos, reports, tables and other related business documents.</p>	<p>COMP 18 — Data Entry 3 Units (May be taken two times for credit.) Degree Appropriate 54 hours of lecture. Data entry using a microcomputer. Includes intensive skill building on the ten-key pad and development of keyboarding skills for entering formatted and non-formatted text, both alphabetic and numeric, in a variety of business applications. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>CNET 64 — Server + Certification Preparation 3 Units Spring Semester Degree Appropriate (May be taken two times for credit.) 54 hours of lecture. <i>Advisory: CNET 56 taken prior</i> Prepares the computer/network service technician for the CompTIA Server+ certification examination.</p>		

COMP 20 — Word for the Business Professional 4 Units
(May be taken two times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
54 hours of lecture.
54 hours of lab.

Advisory: COMP 10 or CISB 13 and ability to type 25 wpm with test verification at first class meeting

Extensive hands-on instruction using Microsoft Word and its editing, formatting, and language tools to create, revise and format various business and report documents. Also create flyers, newsletters, and other publication documents using advanced formatting techniques and tools. Students who repeat this course will improve skills through further instruction and practice.

COMP 28 — Office Management Skills 3 Units
54 hours of lecture. Degree Appropriate

Advisory: COMP 1 or COMP 1A, or BUSO 1 or BUSO 1A, and BUSO 5

Training and skill building in filing systems and procedures, proofreading, telephone techniques, faxing, emailing, and electronic calendaring of events, appointments and meetings.

COMP 50 — Desktop Presentations Using PowerPoint 4 Units
(May be taken two times for credit.) Degree Appropriate, CSU

54 hours of lecture.

54 hours of lab.

Advisory: COMP 10 or COMP 12 or CISB 13 or CISB 15

Use PowerPoint to plan, design, and produce effective presentations. Includes creating charts, diagrams, and storyboards; developing appropriate text content; adding sound, animation, and movies. Students who repeat this course will improve skills through further instruction and practice.

COMP 60 — Desktop Publishing with InDesign or Pagemaker 4 Units
(May be taken three times for credit.) Degree Appropriate, CSU

(May be taken for option of letter grade or Credit/No Credit.)

54 hours of lecture.

54 hours of lab.

Advisory: COMP 10 or COMP 12 or CISB 13 or CISB 15

Using InDesign or PageMaker desktop publishing software to integrate text and graphics for designing, editing and producing high-quality business publications.

COMP 62 — Desktop Publishing with QuarkXpress 4 Units
(May be taken three times for credit.) Degree Appropriate

(May be taken for option of letter grade or Credit/No Credit.)

54 hours of lecture.

54 hours of lab.

Advisory: COMP 10 or COMP 12 or CISB 13 or CISB 15 or equivalent experience

Using QuarkXpress desktop publishing software on a microcomputer to integrate text and graphics for designing, editing, and producing high-quality business publications. Students who repeat this course will improve skills through further instruction and practice.

COMP 63 — Adobe Illustrator for Desktop Publishers 4 Units
(May be taken three times for credit.) Degree Appropriate

(May be taken for option of letter grade or Credit/No Credit.)

54 hours of lecture.

54 hours of lab.

Advisory: COMP 10 or COMP 12 or CISB 13 or CISB 15 or equivalent experience. Eligibility for BUSO 5 or ENGL 68.

Using Adobe Illustrator on a microcomputer to design and produce graphic images that can be used independently or incorporated into a page layout or presentation program. Students who repeat this course will improve skills through further instruction and practice.

COMP 64 — Desktop Publishing Seminar 2.5 Units
(May be taken three times for credit.) Degree Appropriate

(May be taken for Credit/No Credit only.)

36 hours of lecture.

27 hours of lab.

Prerequisite: COMP 60 or COMP 62 and COMP 65

Advisory: COMP 63

Students will produce "real life" publishing products emphasizing creative design and effective production. Students will gain practical experience through working with clients and working in teams. Students who repeat this course will improve skills and create additional portfolio pieces.

COMP 65 — Modifying Images for Desktop Publishing 4 Units
(May be taken three times for credit.) Degree Appropriate

(May be taken for option of letter grade or Credit/No Credit.)

54 hours of lecture.

54 hours of lab.

Advisory: COMP 10 or COMP 12 or CISB 13 or CISB 15 or equivalent experience

Using Adobe PhotoShop on a microcomputer as applied from the office perspective. Students will learn to modify images that can be used independently or incorporated into a page layout or presentation program. Students who repeat this course will improve skills through further instruction and practice.

COMP 68 — Transcription Techniques 3 Units
Degree Appropriate

(May be taken for option of letter grade or Credit/No Credit.)

54 hours of lecture.

Develops the language competencies and formatting knowledge required to produce acceptable business documents; emphasizes punctuation, number usage, proofreading, spelling and word division; and reinforces through a series of sentence applications, paragraphs and business documents.

COMP 120A — Microsoft Word – Level 1 1 Unit
(May be taken two times for credit.) Degree Appropriate

(May be taken for Credit/No Credit only.)

18 hours of lecture.

Advisory: COMP 10 or CISB 13 and ability to type 25 wpm with test verification at first class meeting

Hands-on instruction in word processing in a Windows environment. Includes initial creation and revision of documents, formatting, spell check, thesaurus, and files management. Students who repeat this course will improve skills through further instruction and practice.

COMP 120B — Microsoft Word – Level 2 1 Unit
(May be taken two times for credit.) Degree Appropriate

(May be taken for Credit/No Credit only.)

18 hours of lecture.

Prerequisite: COMP 120A or COMP 12 or CISB 15

A continuation of COMP 120A with hands-on instruction in word processing in a Windows environment. Includes advanced formatting features, tables, columns, outlines, merge, sort, graphics and table of contents. Students who repeat this course will improve skills through further instruction and practice.

COMP 150 — Basic PowerPoint 1 Unit
(May be taken for Credit/No Credit only.) Degree Appropriate

18 hours of lecture.

Overview and basic instruction using one of the most popular presentation software packages. Recommended for all students who need to know how to create presentations. Not recommended for Office Technology majors.

COMPUTER GRAPHICS

GRAP 1 — Computer Graphics Lab 1 Unit
Formerly GRAP 50 Degree Appropriate

(May be taken two times for credit.)

(May be taken for option of letter grade or Credit/No Credit.)

54 hours of lab.

Advisory: COMP 10 or equivalent computer experience

Provides computer laboratory experience to supplement the regular program, and provides opportunities for students to pursue more advanced projects. Students who repeat this course will improve skills through further instruction and practice.

Course Descriptions

GRAP 10 — Photo Editing with Photoshop **3 Units**
Formerly GRAP 52A Degree Appropriate

(May be taken two times for credit.)
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of lecture.
54 hours of lab.

Advisory: COMP 10 or PHOT 4

Basic techniques to adjust and modify photos using Photoshop software tools. Includes digital color theory and photo quality standards; practice photoscan reproduction, resolution and scaling, masking, layer editing and effects, filters, color correction and file formats; output for editing, restoring, and retouching. Students who repeat this course will improve skills through further instruction and practice.

GRAP 12 — Advanced Photo Editing with Photoshop **3 Units**
Formerly GRAP 52B Degree Appropriate

(May be taken two times for credit.)
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of lecture.
54 hours of lab.

Prerequisite: GRAP 10

Advanced training in Photoshop editing, color, exposure, sharpness, and contrast enhancement, layer and object masking, vector tools, image compositing, and the uses of blended modes; design of realistic and imaginary photo illustrations using 8- and 16-bit high resolution digital images. Students who repeat this course will improve skills through further instruction and practice.

GRAP 14 — Digital Color Management **3 Units**
(May be taken two times for credit.) Degree Appropriate

(May be taken for option of letter grade or Credit/No Credit.)
36 hours of lecture.
54 hours of lab.

Prerequisite: GRAP 10

Advanced techniques of digital photo color management systems and workflow. System color architectures, monitors, printers, proofers, and other digital devices; spectrophotometer techniques; scripting Photoshop actions, using "digital raw" meta data to organize photo storage; advanced special editing techniques for 16-bit raw color and grayscale images. Students who repeat this course will improve skills through further instruction and practice.

GRAP 16 — Digital Image Design with Illustrator & Freehand **3 Units**
Formerly GRAP 49 Degree Appropriate

(May be taken two times for credit.)
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of lecture.
54 hours of lab.

Advisory: COMP 10 or equivalent computer experience

Basic digital image drawing techniques using Adobe Illustrator or Macromedia Freehand. Includes software tools, applying color, using layers, typography, measurement, and paper systems. Practice importing photo scans, creating layouts, layer animation, choosing fonts, special effects, export file formats, and output in a digital workflow. Students who repeat this course will improve skills through further instruction and practice.

GRAP 18 — Advanced Image Design – 3D Modeling Techniques **3 Units**
Formerly GRAP 58 Degree Appropriate

(May be taken two times for credit.)
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of lecture.
54 hours of lab.

Prerequisite: GRAP 16

Corequisite: GRAP 1 (May have been taken previously)

Advanced digital image drawing emphasizing creation of photorealistic 3D models and environments. Principles of perspective, coordinate space, photographic lighting, object animation, photo and video texture mapping, and common techniques for rendering still or animated QuickTime image movies for digital compositing and post-production. Students who repeat this course will improve skills through further instruction and practice.

GRAP 20 — Applying Photos and Images in Multimedia **3 Units**
Formerly GRAP 54 Degree Appropriate

(May be taken two times for credit.)
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of lecture.
54 hours of lab.

Advisory: GRAP 10

Principles of digital storytelling, combining still photos, graphics images, type, video, and audio content output to digital CD or DVD media, video, or Web pages. Commonly used tools and techniques of Apple's iPhoto, iMovie, iDVD, iTunes, GarageBand, and QuickTime Pro multimedia software, Mac OS X features, and other multimedia software and hardware. Students who repeat this course will improve skills through further instruction and practice.

GRAP 24 — Work Experience in Computer Graphics **2 Units**
(May be taken four times for credit.) Degree Appropriate

(May be taken for option of letter grade or Credit/No Credit.)
150 hours of lab.

Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog

Provides Computer Graphics students with actual on-the-job experience in an approved work setting which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

GRAP 28 — Digital Portfolio **2 Units**
Formerly GRAP 53 Degree Appropriate

(May be taken for option of letter grade or Credit/No Credit.)
18 hours of lecture.
54 hours of lab.

Prerequisite: GRAP 12 and GRAP 20

Preparation of a personal computer graphics portfolio containing key samples of work for presentation or career evaluation. The portfolio displays the learner's skills mastery, knowledge, and capacities for communicating, synthesis, and problem solving.

GRAP 99 — Special Projects in Computer Graphics **2 Units**
(May be taken four times for credit.) Degree Appropriate, CSU

(May be taken for Credit/No Credit only.)
36 hours of lecture.

In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor's authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to insure that proficiencies are enhanced.

COMPUTER INFORMATION SYSTEMS: AUXILIARY**CISX 94 — Laboratory Studies in Computer Information Systems** **1 Unit**

(May be taken two times for credit.) Degree Appropriate, CSU
(May be taken for Credit/No Credit only.)
54 hours of lab.

Prerequisite: Laboratory course in the same subject field and program specialization and depending on space availability

This course provides extended laboratory experiences supplementary to those available in the regular program and allows the student to pursue more advanced and complex laboratory projects and experiments. Students who repeat this course will increase skill proficiencies in Computer Information Systems.

CISX 95 — Laboratory Studies in Computer Information Systems **2 Units**

(May be taken two times for credit.) Degree Appropriate, CSU
(May be taken for Credit/No Credit only.)
108 hours of lab.

Prerequisite: Laboratory course in the same subject field and program specialization and depending on space availability

This course provides extended laboratory experiences supplementary to those available in the regular program and allows the student to pursue more advanced and complex laboratory projects and experiments. Students who repeat this course will increase skill proficiencies in Computer Information Systems.

CISX 96 — Laboratory Studies in Computer Information Systems 3 Units

(May be taken two times for credit.) Degree Appropriate, CSU
 (May be taken for Credit/No Credit only.)
 162 hours of lab.

Prerequisite: Laboratory course in the same subject field and program specialization and depending on space availability

This course provides extended laboratory experiences supplementary to those available in the regular program and allows the student to pursue more advanced and complex laboratory projects and experiments. Students who repeat this course will increase skill proficiencies in Computer Information Systems.

CISX 97 — Work Experience in Computer Information Systems 1 Unit

(May be taken four times for credit.) Degree Appropriate
 (May be taken for Credit/No Credit only.)
 75 hours of lab.

Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog

Advisory: CISD 14, CISP 14, CISM 31

Provides CIS students with actual on-the- job experience in an approved work site which is related to classroom-based learning. A minimum of 75 paid clock hours or 60 non-paid clock hours per semester is required for each one unit of credit. Work experience placement is not guaranteed but assistance is provided. Students who repeat this course will improve skills through further instruction and practice.

COMPUTER INFORMATION SYSTEMS: BEGINNING**CISB 11 — Computer Information Systems 3.5 Units**

(CAN BUS 6) Degree Appropriate, CSU, UC
 54 hours of lecture.
 27 hours of lab.

Provide an understanding of computer information systems: computer hardware, software, data communications, computer ethics, computer security, systems analysis and design, Internet, problem solving and programming using multiple computer platforms

CISB 13 — Microsoft Windows 2 Units

27 hours of lecture. Degree Appropriate, CSU
 27 hours of lab.

Hands-on instruction using Microsoft Windows Operating System to manage files, folders, and disks. Personalize the Windows environment. Use the Search feature to locate files. Browse the web using Internet Explorer.

CISB 15 — Microcomputer Applications 4 Units

54 hours of lecture. Degree Appropriate, CSU, UC
 54 hours of lab.

Introduction of windows based operating system and applications. Simple business examples using up-to-date browser, word processing, spreadsheet, database management and presentation software; and integration of software applications. Hands-on instruction on windows based computers.

CISB 21 — Microsoft Excel 4 Units

54 hours of lecture. Degree Appropriate
 54 hours of lab.

Spreadsheet concepts using Microsoft Excel including formatting formula and function use, charting, linking worksheets, pivot tables, macros, and VGA code basics.

COMPUTER INFORMATION SYSTEMS: DATABASE**CISD 11 — Database Management – Microcomputers 4 Units**

54 hours of lecture. Degree Appropriate, CSU
 54 hours of lab.

Advisory: COMP 12 or CISP 11 and CISB 15

Design, creation and management of relational databases using Microsoft's Access or similar DBMS. Basic database design, creation of tables, queries, forms, reports, data access pages, and macros. Creation of Custom Graphical UserInterface using Switchboard Manager and VBC code. Extensive hands-on experience on a Windows-based PC.

CISD 14 — Advanced Database Management – Microcomputers 4 Units

54 hours of lecture. Degree Appropriate
 54 hours of lab.

Advisory: CISD 11 and CISP 11

Advanced Access programming techniques using Visual Basic language; event-driven programming; access object model, DAO object model, ADO object model; VB structures, arrays, error handling, multi-user applications, transaction processing, client-server; security issues. Extensive hands-on experience on a windows-based PC.

CISD 21 — SQL Server 4 Units

54 hours of lecture. Degree Appropriate
 54 hours of lab.

Advisory: CISB 11 or CISB 15
 Provides comprehensive instruction in structured query language (SQL) and transact-SQL for Microsoft SQL Server users. Students design a database, create database objects, view and update data, define cursors, develop program units, manage transactions, and handle database security.

CISD 31 — Database Management 4 Units

54 hours of lecture. Degree Appropriate
 54 hours of lab.

Advisory: CISB 11

Oracle database functions, concepts, and terms. PL/SQL will be used to code, test and implement stored procedures, functions, triggers, and packages. Relational database projects will be built using PL/SQL.

CISD 32 — Oracle Forms and Reports 4 Units

54 hours of lecture. Degree Appropriate
 54 hours of lab.

Advisory: CISD 31

Design, creation and implementation of interactive single forms with multiple canvases, multiple forms and reports using PL/SQL triggers, the Object Navigator, and Form and Report Builder. Reports and interactive forms will use single and multiple tables in a realistic business setting.

CISD 33 — Oracle Database Architecture and Administration 4 Units

54 hours of lecture. Degree Appropriate
 54 hours of lab.

Advisory: CISD 31 highly recommended

Provides the Oracle data-base administrator (DBA) a firm foundation in basic administrative tasks and the necessary knowledge and skills to set up, maintain, organize and troubleshoot an Oracle database. Presents an in-depth coverage on Oracle internal structures, the database administrative tools, user management, management of database logical and physical layouts.

CISD 34 — High Performance Oracle SQL Tuning 2 Units

27 hours of lecture. Degree Appropriate
 27 hours of lab.

Advisory: CISD 33

Provides Oracle Data Base Administration and Oracle Application Developers with the knowledge and hands-on skills necessary to tune the performance of Oracle applications. Concepts and hands-on programming skills necessary to code efficient SQL statements, use Oracle Optimizers, resources, and path tracing.

CISD 40 — Database Design 2 Units

27 hours of lecture. Degree Appropriate
 27 hours of lab.

Advisory: CISD 11

Students will analyze database needs and functions, create data models, E-R diagrams and UML diagrams, use normalization rules and principles to create properly-designed databases and learn basic DBA objectives and tasks.

Course Descriptions

CISD 50 — Web Based Applications with PL/SQL **4 Units**
54 hours of lecture. Degree Appropriate, CSU
54 hours of lab.
Advisory: CISD 31
Development of web based applications with PL/SQL. Includes general understanding of web DB, incorporating Oracle database into PL/SQL web applications and building objects and components.

COMPUTER INFORMATION SYSTEMS: MANAGEMENT

CISM 11 — Systems Analysis and Design **3.5 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
27 hours of lab.
Advisory: CISB 15 or COMP 12 and CISB 11
Develops basic understanding of information systems, general system solutions and the discipline of systems analysis in relation to the information system life cycle. Develops skills in applying the tools, techniques, and concepts of systems analysis to information systems development.

CISM 14 — Computer Information Systems Seminar **4 Units**
Spring Semester Degree Appropriate
(May be taken two times for credit.)
54 hours of lecture.
54 hours of lab.
Advisory: CISM 11 and at least one of the following: CISD 14, CISP 14, CISP 34

A guided experience in the performance, management and documentation of a computer-based system project. The student independently or as a team member will initiate and complete a semester project. Includes defining the problem, designing the new system, developing a working system and preparing the system documentation. The project must be completed in a programming language for which an advanced course has been completed. Students who repeat this course will improve skills through further instruction and practice.

CISM 21 — Client/Server Architecture **4 Units**
54 hours of lecture. Degree Appropriate
54 hours of lab.
Advisory: CISD 14 or CISP 14 or CISP 41
Architectural framework and components of a client/server environment. Includes standards groups, data access and distribution, application development, systems and network management, implementation issues; selection criteria for client hardware and software, server hardware and software, relational databases, applications development tools, and distributed systems management; and application prototyping.

CISM 31 — AS/400 System Administration **4 Units**
54 hours of lecture. Degree Appropriate
54 hours of lab.
Advisory: CISB 11 or computer work experience
Administering the IBM AS/400 Computer System using OS/400 (operating system/400) services: OS/400 user interface, CL command interface, navigating system hardware features and licensed programs, managing devices, system IPL, system security, objects and object management, libraries and library lists, AS/400 job scheduling and job descriptions, work management objects, objects, save and restore functions, AS/400 utilities, SDA menu creation, DDS-described physical, logical and display files, and basic interactive and batch CL programs.

CISM 34 — AS/400 Advanced System Administration **4 Units**
54 hours of lecture. Degree Appropriate
54 hours of lab.
Advisory: CISM 31
The AS/400 computer system: Batch and interactive CL system utility programs, including a standard error handling routine, CL parameter passing, data areas, message subfiles, and *OUTFILE processing. Save and Restore requirements, backup strategies, the AS/400 System Software upgrade procedures, tape device maintenance, work management objects, work management scenarios, disk analysis, and job scheduling will also be discussed and incorporated into student-developed CL based solutions. Course includes extensive hands-on experience using an AS/400.

COMPUTER INFORMATION SYSTEMS: NETWORKING

CISN 11 — Telecommunications/Networking **4 Units**
54 hours of lecture. Degree Appropriate, CSU
54 hours of lab.
Advisory: CISB 11 or CISB 15
NASM core. Prepare for Cisco CCNA 1st year certification. Covers fundamental concepts and design in telecommunications/networking including: network standards, TCP/IP, OSI, network protocols, transmission media, hardware architecture, local area network, wide area network, remote connectivity, Network operating system (Microsoft Windows, Novell NetWare, and UNIX), troubleshooting, maintaining/ upgrading network, network security, vulnerability, and intrusion detection.

CISN 14 — Advanced Telecommunications **4 Units**
54 hours of lecture. Degree Appropriate
54 hours of lab.
Advisory: CISM 11, CISN 11, CISN 41
Concepts of advanced telecommunication and network analysis. Topics including: review of networking and telecommunications protocols; advanced TCP/IP subnet and OSI Model applications; use of protocol analysis tool to capture dataframe and troubleshoot advanced network problems through the decode analysis of the captured data frame; design and analysis of LAN, WAN, and Wireless networks in various environments and appraisal of network security, vulnerability and intrusion detection.

CISN 21 — Windows Operating System **4 Units**
54 hours of lecture. Degree Appropriate, CSU
54 hours of lab.
Advisory: CISB 11 or CISB 15 OR COMP 12
Employing a Windows operating system to manage disks, files and applications. Creating and editing documents with Wordpad and Paint applications, analyze and debug Windows operating environment problems, secure a Windows environment, conduct research on the Internet.

CISN 24 — Window Server Network & Security Administration **4 Units**
54 hours of lecture. Degree Appropriate, CSU
54 hours of lab.
Advisory: CISB 15 or CISB 11 or CISN 11 OR CISN 21
Active directory security and policy management, server/client installation, DHCP (Dynamic Host Configuration Protocol), DNS (Domain Name Service), file system security, logon script, network printing, web and terminal server, NAT, IPsec and secure VPN.

CISN 31 — Linux Operating System **4 Units**
54 hours of lecture. Degree Appropriate, CSU
54 hours of lab.
Advisory: CISB 11
Concepts and skills in planning and installing Linux Operating System and its graphical interface; using Linux Shells and system administration commands; managing user accounts; installing hardware and software; creating scripts to automate system administration; and maintaining file systems and system resources.

CISN 34 — LINUX Networking and Security **4 Units**
54 hours of lecture. Degree Appropriate, CSU
54 hours of lab.
Advisory: CISN 31
Network installation and management using Linux operating system and its security components. In-depth study of concepts TCP/IP, IP addressing, network protocols and servers, gateways, routers, bridges and applications. Creating Linux intranets and connecting to Internet.

CISN 41 — Novell/SUSE Linux Enterprise Server Administration **4 Units**
54 hours of lecture. Degree Appropriate, CSU
54 hours of lab.
Advisory: CISB 15, CISN 11, OR CISN 21
Novell, Microsoft Windows, and Linux server network integrations. NDS (Novell Directory Services), server and client installation, shared resources, NDS and file system security, login script, network printing and management, ZEN (Zero Effort Network), IP subnet.

CISN 51 — Cisco CCNA Networking Fundamentals and Routing **4 Units**

54 hours of lecture. Degree Appropriate, CSU
54 hours of lab.

Advisory: CISN 11 or CISN 24 or CISN 34 or CISN 41

Concepts of WAN (Wide Area Network) fundamentals, advanced IP subnet, TCP/IP, IPX/SPX, IGP, EGP, and network design. CISCO configuration of IOS, router, access list, PPP, frame relay, routing protocols (Static Route, RIP, IGRP, EIGRP, and OSPF), switching and VLAN are included.

COMPUTER INFORMATION SYSTEMS: PROGRAMMING**CISP 11 — Basic Programming** **4 Units**

54 hours of lecture. Degree Appropriate, CSU, UC
54 hours of lab.

Advisory: CISB 11 OR CISB 15 or computer work experience

Programming using Visual Basic. Planning and writing object-oriented applications using Windows Forms and Web Forms; user interface design classes, objects, properties, methods and events; control structures; lists and arrays; printing and Print Previews; accessing a database.

CISP 14 — Advanced Basic Programming **4 Units**

54 hours of lecture. Degree Appropriate, CSU, UC
54 hours of lab.

Advisory: CISP 11

Advanced computer programming concepts using Visual Basic as the programming language. Designing, coding, testing, and implementing event-driven programs; creating and updating sequential and random files; validating input data; trapping errors; designing, displaying, searching, and updating database tables; creating record sets using SQL, producing business graphics; using OLE objects and DLLs; distributing applications.

CISP 21 — Programming in Java **4 Units**

54 hours of lecture. Degree Appropriate, CSU, UC
54 hours of lab.

Advisory: CISB 11 OR CISB 15

Programming using Java as the programming language. Design and develop object-oriented programs and Web-based applets; documentation and debugging techniques; user-interface, objects, properties, methods, and events; elementary control structures, lists, arrays, streams and serialization. Provides students with hands-on experience.

CISP 24 — Advanced Java Programming **4 Units**

54 hours of lecture. Degree Appropriate
54 hours of lab.

Advisory: CISP 21

Advanced object-oriented programming concepts and techniques in Java. Course is designed to teach serialization, multithreading, advanced Swing components, networking, server-side technology (servlets, RMI), JDBC, Java Beans, Security (PKI).

CISP 31 — Programming in C++ **4 Units**

54 hours of lecture. Degree Appropriate, CSU, UC
54 hours of lab.

Advisory: CISP 11 or CISP 21

Object-oriented programming using C++ as the programming language. Object oriented design, documentation, and debugging techniques. Elementary control structures, classes, overload operators and functions, single and multiple inheritance.

CISP 34 — Advanced C++ Programming **4 Units**

54 hours of lecture. Degree Appropriate, CSU, UC
54 hours of lab.

Advisory: CISP 31

Advanced object-oriented programming concepts and principles of object-oriented design in C++. Data structures: vectors, linked lists, queues, stacks and hash tables. Programs with graphical-user interface. Access to a database. Web services.

CISP 41 — Programming in C# **4 Units**

(May be taken for option of letter grade or Credit/No Credit.)
54 hours of lecture. Degree Appropriate
54 hours of lab.

Advisory: CISB 11 or CISB 15

Plan, develop and debug C# applications using Windows Forms and Web Forms. Course covers loops, if statements, switch blocks, database connections, multiple forms, object-oriented programming concepts. Course taught in hands-on environment and requires projects implementing each concept.

CISP 44 — Advanced Programming in C# **4 Units**

(May be taken for option of letter grade or Credit/No Credit.)
54 hours of lecture. Degree Appropriate
54 hours of lab.

Prerequisite: CISP 41 or industry experience in C#

Advanced programming concepts using C#. Designing, coding, testing and implementing object-oriented multi-tier applications; displaying, searching, and updating SQL/Client databases using Data Readers and Data Adapters with both Windows Forms and Web Forms; creating user controls, Web Services, and container classes classes; creating HTML help files, deploying applications, and developing mobile applications.

CISP 51 — Principles of Object-Oriented Design **2 Units**

27 hours of lecture. Degree Appropriate
27 hours of lab.

Advisory: CISP 11 or CISP 21 or CISP 31

Provides instruction in object-oriented design and patterns, vital concepts for object-oriented programming language. Includes object-oriented design, patterns and UML within programming that will enable students to build large packages and business applications.

CISP 90T — Topics in Computer Programming **4 Units**

(May be taken four times for credit.) Degree Appropriate
54 hours of lecture.

54 hours of lab.

Covers special topics in computer programming providing opportunity to explore disciplines in greater depth. The content and methods of study vary from semester to semester depending upon the particular project and topics under consideration.

COMPUTER INFORMATION SYSTEMS: SECURITY**CISS 11 — Practical Computer Security** **2 Units**

27 hours of lecture. Degree Appropriate
27 hours of lab.

Advisory: CISB 11

Introductory course in computer security. Provides awareness for all computer users to protect user accounts and computer systems from attacks. Hands-on projects illustrate security software and hardware configuration.

CISS 13 — Principles of Information Systems Security **4 Units**

54 hours of lecture. Degree Appropriate
54 hours of lab.

Advisory: CISB 11

Introductory course in information systems security covering the ten domains needed for the Certified Information Systems Security Professional (CISSP).

CISS 15 — Operating Systems Security **4 Units**

54 hours of lecture. Degree Appropriate
54 hours of lab.

Advisory: CISB 11, CISN 21

Advanced aspects of operating systems security: from how attackers operate to how viruses strike. Covers strengthening operating systems and repelling attacks. Fundamental knowledge of a full range of security concepts and techniques and application to different operating systems (Windows, Unix etc.)

CISS 21 — Network Vulnerabilities and Countermeasures **4 Units**

54 hours of lecture. Degree Appropriate, CSU
54 hours of lab.

Concepts of network vulnerabilities from a hacker's perspective. Addresses the latest cutting edge attacks and common attacks still prevalent though hands-on lab assignments; explores legal issues associated with computer network attacks; provides students knowledge to design, build and operate network systems to prevent, detect, and respond to attacks. Communication protocols, mediums, security classes, well-known ports and services, discovery and scanning techniques, port, socket and service vulnerability penetrations are some topics addressed.

Course Descriptions

CISS 23 — Network Analysis and Intrusion Detection Systems **4 Units**

54 hours of lecture. Degree Appropriate, CSU
54 hours of lab.
Concepts of NIDS (network intrusion detection systems) and network protocol and analyzing tools. Discusses qualities that go into a sound and appropriate NIDS in different scenarios. Hands-on practice of the tools such as Snort, Cisco Thread, Sniffer, Ethereal, Windows Network Monitor, WildPackets TCPDump, WinDUMP, Dsniff and Sniffit to detect network attack and troubleshoot network problems.

CISS 25 — Network Security and Firewalls **4 Units**

54 hours of lecture. Degree Appropriate, CSU
54 hours of lab.
Concepts of design and implementation of a secured network. Addresses an in-depth coverage of network security design, implementation and configuration of firewall and VPN in various environments and platforms, implementing security with Cisco routers, firewall log analysis, IPsec, Ssh (Secure Shell), and secure Perimeter design. Lab assignments will provide hands-on practice in installing.

**COMPUTER INFORMATION SYSTEMS:
WEB APPLICATIONS****CISW 11 — Introduction to Internet Technologies** **4 Units**

54 hours of lecture. Degree Appropriate, CSU
54 hours of lab.
Advisory: CISB 11 or CISB 13 or CISB 15
Overview of Internet concepts and how to use Internet technologies securely, including: e-mail, World Wide Web, chat, instant messaging, voice over IP, searching the Internet, file-sharing, streaming media, creating Web pages and Web sites, blogging, podcasting, wikis, RSS, social networking, multiplayer gaming, and e-commerce.

CISW 21 — Web Programming **4 Units**

54 hours of lecture. Degree Appropriate
54 hours of lab.
Advisory: CISB 15 or CISW 11
Programming skills for the web including web user interfaces, and web servers and databases. Uses different web programming, scripting and markup languages including HTML, DHTML, CSS, XML, JavaScript, ASP, JSP.

CISW 24 — Secure Server Side Web Programming **4 Units**

54 hours of lecture. Degree Appropriate
54 hours of lab.
Advisory: CISW 21
Advanced Web programming such as creating Web user interfaces like interactive CGI (Common Gateway Interface), programming databases, managing files, extracting information, report formatting, and accessing Web servers by using a Web scripting or programming language like PERL.

CISW 31 — Web Servers **4 Units**

54 hours of lecture. Degree Appropriate
54 hours of lab.
Advisory: CISW 31 OR CISW 21
Concepts and skills in planning, installing, and managing Web Servers like Apache, Jigsaw, MS Personal Web Server or IIS. Course topics include kernel reconfiguration, device drivers, NFS setup, mail, news, FTP, firewall, security, encryption, database servers, subnetting, routing and bridging, and DNS.

CISW 41 — XML Secure Programming **3 Units**

54 hours of lecture. Degree Appropriate
Advisory: CISW 21
Principles, components and benefits of the Extensible Markup Language (XML), including advanced concepts of XPointers, XLink, and XSLT. Apply XML secure programming using DOM and SAX and standards such as Canonicalization, Signatures and Encryption.

CISW 49 — Service Oriented Architecture Concepts & Practice **3 Units**

54 hours of lecture. Degree Appropriate
Prerequisite: CISW 41
Concepts and design principles of Service Oriented Architecture (SOA) and best practices on how to integrate SOA; XML technologies like DTD, XSD, XLST, XQuery and XPath; and Web Services technologies like WSDL, SOAP, and UDDI. Best practices on integrating SML and Web Services into applications and databases and enterprise level systems.

COMPUTER SCIENCE**CSCI 110 — Fundamentals of Computer Science** **3.5 Units**

54 hours of lecture. Degree Appropriate, CSU, UC
27 hours of lab.
Prerequisite: MATH 71 or MATH 71B or MATH 72 or equivalent
Advisory: Eligibility for ENGL 1A
Basic concepts of computer hardware and software. General computer organization and information representation. Binary and hexadecimal number systems. Algorithm design and problem-solving techniques. Introduction to programming using a high level language (C, C++ or Java.)

CSCI 140 — C++ Language and Object Development **4 Units**

(CAN CSC118) Degree Appropriate, CSU, UC
54 hours of lecture.
54 hours of lab.
Prerequisite: CSCI 110 or equivalent programming experience
For computer science, mathematics, engineering and other science students. Introduction to C++ programming and object-oriented paradigm. Control structures, functions, arrays, pointers and strings, classes and data abstraction, C++ object programming, operator overloading, inheritance, virtual functions and polymorphism, stream input and output, templates, exception handling, file processing. Introduction to data structures in C++, string processing and recursion.

CSCI 145 — Java Language and Object Oriented Programming **4 Units**

54 hours of lecture. Degree Appropriate, CSU, UC
54 hours of lab.
Prerequisite: Completion of CSCI 110
Introduction to Java language and object oriented programming with Java as well as general concepts and techniques of computer programming. Topics include: Java expressions, flow control, methods and program structure, Java classes, overloading, object references, inheritance, Java library packages, exceptions, file I/O, applets, GUI, and event handling. A course for computer science, engineering, mathematics, and other science students

CSCI 150 — Assembly Language/Machine Architecture **3 Units**

CSCI 150 + 150L = CAN CSCI 10 Degree Appropriate, CSU, UC
54 hours of lecture.
Prerequisite: CSCI 110
Corequisite: CSCI 150L
Organization and operation of real computer systems at the assembly language level using the Intel 80x86 family of processors; mapping statements and constructs in a high-level language onto sequences of machine instructions; internal representations of simple data types and structures; numerical computation, noting various data representation errors and potential procedural errors; investigation of basic principles of operating systems; and programming language translation process.

CSCI 150L — Assembly Language Laboratory **1 Unit**

CSCI 150 + 150L = CAN CSCI 10 Degree Appropriate, CSU, UC
(May be taken for Credit/No Credit only.)
54 hours of lab.
Corequisite: CSCI 150 and scientific algorithms and data structures in C++ or Java is strongly recommended
Advisory: CSCI 140; Language experience programming general and scientific algorithms and data structures in C++ or Java is strongly recommended
Complements the lecture material in CSCI 150. Development/debugging of assembly language programs.

CSCI 170 — Introduction to Unix Operating System **3.5 Units**

Fall Semester Degree Appropriate, CSU, UC
54 hours of lecture.
27 hours of lab.
Prerequisite: Completion of CSCI 110
Introduction to the UNIX operating system, system administration and networking. Topics include: process synchronization and communication mechanisms, process management, scheduling and protection, memory organization and management, virtual memory, I/O devices management, file systems, networking, system administration for UNIX.

<p>CSCI 190 — Discrete Mathematics Applied to Computer Science 4 Units 72 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: MATH 71 or equivalent</i> Provides students with the mathematical background necessary in Computer Science: set theory, logic, modular arithmetic, combinatorics, finite probability and graphs. Topics include propositional and predicate calculus, recursion, binary search trees and counting techniques.</p>
<p>CSCI 210 — Applied Logic for Computers 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: CSCI 110</i> Basic concepts of digital systems, introduction to Boolean algebra, truth tables, Karnaugh maps, combinational elements and networks, state diagrams, state tables, sequential elements and networks.</p>
<p>CSCI 220 — Data Structures I 3 Units Fall Semester Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite: CSCI 140 or CSCI 145</i> <i>Corequisite: CSCI 220L</i> 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.</p>
<p>CSCI 220L — Data Structures I Laboratory 1 Unit Fall Semester Degree Appropriate, CSU, UC (May be taken for Credit/No Credit only.) 54 hours of lab. <i>Corequisite: CSCI 220</i> An independent study program designed to complement the lecture material presented in CSCI 220, Data Structures. Hands-on computer work will include problem solving in linear data structures, strings, and trees.</p>
<p>CSCI 230 — Data Structures II 3 Units Spring Semester Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite: CSCI 220</i> <i>Corequisite: CSCI 230L</i> Basic searching/sorting algorithms, hashing, graphs, memory/disk management, B-trees, advanced tree structures and analysis.</p>
<p>CSCI 230L — Data Structures II Laboratory 1 Unit Spring Semester Degree Appropriate, CSU, UC (May be taken for Credit/No Credit only.) 54 hours of lab. <i>Corequisite: CSCI 230</i> An independent study program designed to complement the lecture material presented in CSCI 230, Data Structures II. Hands on computer work will include problem solving in searching, sorting, and graphs.</p>

CORRECTIONAL SCIENCES	
<p>CORS 10 — Introduction to Correctional Sciences 3 Units Spring Semester Degree Appropriate, CSU 54 hours of lecture. Overview of the field of corrections: county jail, probation, the California Youth Authority and the Department of Corrections as a member of the Criminal Justice System. Includes philosophy, past and the present practices and the criminal justice and correctional processes.</p>	
<p>CORS 15 — Control and Supervision of the Offender 3 Units Fall Semester Degree Appropriate 54 hours of lecture. Examine methods of controlling and supervising inmates. Emphasizes California's methods in rapidly-expanding institutions.</p>	
<p>CORS 20 — Correctional Law 3 Units Spring Semester Degree Appropriate 54 hours of lecture. Legal and due process rights for inmates. Inmate rights vs. needs of society. State, federal, and appellate court decisions.</p>	
<p>CORS 25 — Probation and Parole 3 Units Fall Semester Degree Appropriate 54 hours of lecture. Historical development of probation and parole with emphasis on current California programs. Defines the roles of courts, parole boards and the duties and responsibilities of the staff of probation and parole agencies.</p>	
<p>CORS 30 — Ethnic Relations in Corrections 3 Units Spring Semester Degree Appropriate 54 hours of lecture. A historical survey of minority roles, problems and relationships in America. Stresses cultural and racial differences and interpersonal relationships of correctional staff and clients.</p>	
<p>CORS 35 — Interviewing and Counseling in Corrections 3 Units 54 hours of lecture. Degree Appropriate Techniques of interviewing and counseling in the field of corrections with emphasis on practical application. Needs of the client and agency will be stressed.</p>	
<p>CORS 40 — Crime and Delinquency 3 Units 54 hours of lecture. Degree Appropriate 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.</p>	
<p>CORS 45 — The Violent Offender 3 Units 54 hours of lecture. Degree Appropriate Violent crimes of felony assault, robbery, rape, the various types of homicide, and the characteristics of both the offender and the victim.</p>	

COUNSELING	
<p>COUN 1 — Introduction to College 1 Unit (May be taken two times for credit.) Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 18 hours of lecture. Introduction to higher education and the college experience. Includes orientation to college life and higher education resources. Explores graduation, transfer, and career options, factors in educational decision making, and educational planning. Students who repeat this course will improve skills through further instruction and practice.</p>	
<p>COUN 2 — College Success Strategies 3 Units Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. Assists students in evaluating their readiness for a successful college experience. Explores strategies and techniques to be an effective college student, including time management, study skills, college resources, career exploration and educational planning. Develops skills necessary to reach educational and career goals.</p>	
<p>COUN 5 — Career/Life Planning 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Prerequisite: Eligibility for ENGL 68</i> A systematic approach to self exploration and career life planning which includes: identification of values, interests, skills, and self management style. Development of decision making and goal setting skills and identification of barriers to success. Explores careers and job search techniques.</p>	
<p>COUN 20 — Peer Counselor Training 2 Units (May be taken two times for credit.) Degree Appropriate, CSU 36 hours of lecture. <i>Prerequisite: Eligibility for ENGL 68</i> Designed for group experiences with interpersonal communication and discussion of approaches to peer counseling and advising. Provides opportunities for students to develop skills with a variety of communication styles that include open expression, active listening, and feedback. Upon completion of this course, opportunities may be available for students to become employed as peer counselors. Students who repeat this course will improve skills through further instruction and practice.</p>	
<p>COUN 50 — College Orientation and Educational Planning .5 Unit (May be taken for Credit/No Credit only.) Degree Appropriate 9 hours of lecture. Helps students to take charge of their college experience. Students will receive important information about Mt. SAC's support services, academic policies and regulations, study skills/test-taking techniques, and requirements for educational planning. Intended to assist students in the development of an individual educational plan.</p>	

Course Descriptions

COUN 51 — Career Planning **1 Unit**
(May be taken two times for credit.) Degree Appropriate, CSU
(May be taken for Credit/No Credit only.)
18 hours of lecture.
Designed for students who want assistance in making career decisions. A variety of assessments, inventories, and computer generated information will be used in analyzing the student's potential in the world of work. Students who repeat this course will improve skills through further instruction and practice.

COUN 54 — Single Parent Academy **3 Units**
54 hours of lecture. Degree Appropriate
Develop personal, educational, and career life planning skills for single parents.

COUN 57 — College Orientation and Educational Planning for Student Athletes **1 Unit**
(May be taken two times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
18 hours of lecture.
Included are requirements for certificates and degrees and the requirements necessary for transferring to four-year colleges and universities as a student-athlete or student. Transfer rules for NCAA and NAIA will be explained, along with CLCC rules. Students required to complete an educational plan. Students who repeat this course will improve skills through further instruction and practice.

COUN 58 — College Orientation and Educational Planning for International Students **1 Unit**
(May be taken for Credit/No Credit only.) Degree Appropriate
18 hours of lecture.
Helps students to take charge of their college experience. Students will receive important information about Mt. SAC's support services, academic policies and regulations, study skills/test-taking techniques, and requirements for educational planning. Introduction to self-assessment will help students to establish educational goal. Orientation to the American educational system and cultural values will be provided for international students.

COUN 60 — Planning Your Job Search **.5 Unit**
Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
9 hours of lecture.
Prepares students for the employment process including identification of goals and job skills, how to complete an application, prepare a resume and complete the interview process. Employment testing and the rights of employees and employers are also components of the course.

COUN 99A — Special Projects in Counseling **1 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU
18 hours of lecture.
In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. 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.

COUN 99B — Special Projects in Counseling **2 Units**
(May be taken four times for credit.) Degree Appropriate, CSU
36 hours of lecture.
In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. 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.

DANCE: ACTIVITY

DNCE 1 — Ballet Fundamentals **2 Units**
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
72 hours of activity.
Fundamentals of ballet dance styles and an exploration of composition in the ballet dance form. Students who repeat this course will improve proficiency through continued instruction and practice.

DNCE 1-2 — Ballet Fundamentals **.5 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of activity.
Introduces the fundamentals of ballet and an appreciation of ballet as an art form. Students who repeat this course will improve skills through further instruction and practice.

DNCE 2A — Ballet I **1 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of activity.
Basic vocabulary, technique, and movement combinations for ballet. Students who repeat this course will improve proficiency through continued instruction and practice.

DNCE 2A-2 — Ballet I **.5 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of activity.
Basic vocabulary, technique and movement combinations for ballet. Students who repeat this course will improve skills through further instruction and practice.

DNCE 2B — Ballet II **1 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours of activity.
Intermediate technique, vocabulary and movement combinations of ballet. Students who repeat this course will improve proficiency through continued instruction and practice.

DNCE 2B-2 — Ballet II **.5 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of activity.
Intermediate technique, vocabulary and movement combinations for ballet. Students who repeat this course will improve skills through further instruction and practice.

DNCE 3 — Ballet Performance **1 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of activity.
Introduces the experienced dance student to the performance aspect of ballet. Provides the opportunity to develop the ability to analyze form leading to composition of advanced movement combinations. Students who repeat this course will improve proficiency through continued instruction and practice.

DNCE 3-2 — Ballet Performance **.5 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of activity.
Introduces the experienced dance student to the performance aspect of ballet. Provides the opportunity to develop the ability to analyze form leading to composition of advanced movement combinations. Students who repeat this course will improve skills through further instruction and practice.

DNCE 4 — Choreography **2 Units**
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
108 hours of activity.
Prerequisite: DNCE 12A or DNCE 12B or DNCE 13
Designed for the experienced dancer to learn the techniques of choreography. Presents basic choreographic forms and compositional design. Students who repeat this course will improve technical and compositional skills through further practice and instruction.

<p>DNCE 4-2 — Choreography .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. <i>Prerequisite:</i> DNCE 12A or DNCE 12B or DNCE 13 Designed for the experienced dancer to learn the techniques of choreography. Presents basic choreographic forms and compositional design. Students who repeat this course will improve technical and compositional skills through further practice and instruction.</p>	<p>DNCE 12A-2 — Modern I .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Basic vocabulary, technique and movement combinations for Modern dance. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 14A — Jazz I 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Basic vocabulary, technique, movement combinations and routines for jazz dance. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>DNCE 4-3 — Choreography 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. <i>Prerequisite:</i> DNCE 12A or DNCE 12B or DNCE 13 Designed for the experienced dancer to learn the techniques of choreography. Presents basic choreographic forms and compositional design. Students who repeat this course will improve technical and compositional skills through further practice and instruction.</p>	<p>DNCE 12B — Modern II 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Intermediate technique and movement combinations for modern dance. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 14A-2 — Jazz I .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Basic vocabulary, technique, movement combinations and routines for jazz dance. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>DNCE 11A-2 — Social Dance Forms I .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Designed to teach basic social dance techniques. Focus on fundamentals of music, dance positions, dance formations and choreography to be used in the study of, but not limited to Swing, Salsa, Waltz, Foxtrot and Tango. Students who repeat this course will improve proficiency through continued instruction and practice.</p>	<p>DNCE 12B-2 — Modern II .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Intermediate technique and movement combinations for modern dance. Students who repeat this course will improve proficiency through continued instruction and practice.</p>	<p>DNCE 14B — Jazz II 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Intermediate technique, movement combinations and routines for jazz dance. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>DNCE 11B — Social Dance Forms II 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Advanced social dance technique. Focus on improving fundamentals of rhythm, dance positions, dance formations and introduction of advanced techniques to be used in the study of, but not limited to, Swing, Salsa, Foxtrot, Waltz, Folk, Polka, Cha Cha and Tango.</p>	<p>DNCE 13 — Modern Performance 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 108 hours of activity. Introduces the experienced modern dance student to an overview of modern dance styles and choreography elements, enabling them to choreograph and perform. Students who repeat this course will improve proficiency through continued instruction and practice.</p>	<p>DNCE 14B-2 — Jazz II .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Intermediate technique, movement combinations and routines for jazz dance. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>DNCE 12A — Modern I 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Basic vocabulary, technique, and movement combinations for Modern dance. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 13-2 — Modern Performance .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Introduces the experienced modern dance student to an overview of modern dance styles and choreography elements, enabling them to choreograph and perform. Students who repeat this course will improve proficiency through continued instruction and practice.</p>	<p>DNCE 15 — Jazz Performance 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Introduces the experienced dancer to the performance aspect of jazz dance by providing advanced techniques leading to the performance of compositions. Students who repeat this course will improve skills through further ipractice.</p>
	<p>DNCE 13-3 — Modern Performance 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Introduces the experienced modern dance student to an overview of modern dance styles and choreography elements, enabling them to choreograph and perform. Students who repeat this course will improve proficiency through continued instruction and practice.</p>	<p>DNCE 15-2 — Jazz Performance .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Introduces the experienced dancer to the performance aspect of jazz dance by providing advanced techniques leading to the performance of compositions. Students who repeat this course will improve skills through further instruction and practice.</p>

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<p>DNCE 17 — Jazz Fundamentals 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 108 hours of activity. Fundamentals of jazz dance and an exploration of composition in jazz form. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 18B-2 — Tap II .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Intermediate technique, rhythms and routines for tap dance. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 24-3 — Dance Production 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Designed for the experienced dancer to apply previously learned choreographic skill, to conduct stage rehearsals and learn costuming techniques. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>DNCE 17-2 — Jazz Fundamentals .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Fundamentals of jazz dance and an exploration of composition in jazz form. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 19 — Tap Performance 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Introduces the experienced dancer to the performance aspects of tap by providing advanced techniques leading to the performance of compositions. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 24-4 — Dance Production 1.5 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 81 hours of activity. Designed for the experienced dancer to apply previously learned choreographic skill, to conduct stage rehearsals and learn costuming techniques. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>DNCE 17-3 — Jazz Fundamentals 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Fundamentals of jazz dance and an exploration of composition in jazz form. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 19-2 — Tap Performance .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Introduces the experienced dancer to the performance aspects of tap by providing advanced techniques leading to the performance of compositions. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 28 — Theater Dance I 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Provides an opportunity to learn simple dance excerpts from various theater musicals and/or movies. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>DNCE 18A — Tap I 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Presents basic technique, rhythms and routines for tap dance. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 22 — Dance Rehearsal 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Designed for the experienced dancer to work in a rehearsal environment and to be a participant in the beginning elements of concert production. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 28-2 — Theater Dance I .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Provides an opportunity to learn simple dance excerpts from various theater musicals and/or movies. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>DNCE 18A-2 — Tap I .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Presents basic technique, rhythms and routines for tap dance. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 22-2 — Dance Rehearsal .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Designed for the experienced dancer to work in a rehearsal environment and to be a participant in the beginning elements of concert production. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 29 — Theater Dance II 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Provides an opportunity to learn complex dance excerpts from various theater musicals and/or movies. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>DNCE 18B — Tap II 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Intermediate technique, rhythms and routines for tap dance. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 24 — Dance Production 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 108 hours of activity. Designed for the experienced dancer to apply previously learned choreographic skill, to conduct stage rehearsals and learn costuming techniques. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 29-2 — Theater Dance II .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Provides an opportunity to learn complex dance excerpts from various theater musicals and/or movies. Students who repeat this course will improve skills through further instruction and practice.</p>

<p>DNCE 30 — Contemporary Dance 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Provides the beginning to advanced dancer the opportunity to experience different techniques of leading contemporary dancers and choreographers. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 32-2 — Commercial Dance .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Provides the intermediate to advanced jazz dancer the opportunity to experience the different techniques of leading commercial dancers, teachers and choreographers. Students who repeat this course will improve skills through further practice.</p>	<p>DNCE 39A-2 — Alignment and Correctives I .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Based on exercises and concepts developed by Joseph Pilates. Includes basic “mat-work”, “floor-barre”, special conditioning exercises and body awareness resulting in improved alignment, strength, flexibility, control, coordination and breathing. The “mat-work” leads to apparatus work (on the professional reformer) emphasizing stretch, strength and trunk stability and alignment. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>DNCE 30-2 — Contemporary Dance .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Provides the beginning to advanced dancer the opportunity to experience different techniques of leading contemporary dancers and choreographers. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 33 — Improvisation 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Provides the opportunity to experience the creative process of improvisation in dance and choreography. For all levels of Modern Dance. Students who repeat this course will improve proficiency through continued instruction and practice.</p>	<p>DNCE 39B — Alignment and Correctives II 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. <i>Advisory: DNCE 39A</i> Based on exercises and concepts developed by Joseph Pilates. Includes intermediate and advanced “mat-work”. Focus will be primarily on apparatus work (on the professional reformer) developing in improved body alignment, strength, flexibility and control. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>DNCE 31 — Classical Dance 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 108 hours of activity. Provides the proficient ballet student the opportunity to experience the different schools of ballet technique. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 34 — Dance Directives 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. <i>Prerequisite: Admission by audition</i> Provides the intermediate or advanced student the practical experience to assist an instructor in the creation and instruction of a dance class. Students who repeat this course will improve proficiency through continued instruction and practice.</p>	<p>DNCE 39B-2 — Alignment and Correctives II .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. <i>Advisory: DNCE 39A</i> Based on exercises and concepts developed by Joseph Pilates. Includes intermediate and advanced “mat-work”. Focus will be primarily on apparatus work (on the professional reformer) developing in improved body alignment, strength, flexibility and control. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>DNCE 31-2 — Classical Dance .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Provides the proficient ballet dancer the opportunity to experience the different schools of ballet technique. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 35 — Repertory 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 108 hours of activity. <i>Prerequisite: Admission by audition</i> 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.</p>	<p>DNCE 40 — Conditioning Through Dance 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Improves fitness through the coordination of dance exercises. Focuses on strength, flexibility and range of motion. Designed for the non-dancer. However, balance and coordination will benefit dancer and non-dancer alike. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>DNCE 31-3 — Classical Dance 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Provides the proficient ballet dancer the opportunity to experience the different schools of ballet technique. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>DNCE 39A — Alignment and Correctives I 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Based on exercises and concepts developed by Joseph Pilates. Includes basic “mat-work”, “floor-barre”, special conditioning exercises and body awareness resulting in improved alignment, strength, flexibility, control, coordination and breathing. The “mat-work” leads to apparatus work (on the professional reformer) emphasizing stretch, strength and trunk stability and alignment. Students who repeat this course will improve skills through further instruction and practice.</p>	
<p>DNCE 32 — Commercial Dance 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Provides the intermediate to advanced jazz dancer the opportunity to experience the different techniques of leading commercial dancers, teachers and choreographers. Students who repeat this course will improve skills through further practice.</p>		

Course Descriptions

DNCE 40-2 — Conditioning Through Dance **.5 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Improves fitness through the coordination of dance exercises. Focuses on strength, flexibility and range of motion. Designed for the non-dancer. However, balance and coordination will benefit dancer and non-dancer alike. Students who repeat this course will improve skills through further instruction and practice.

DANCE: THEORY

DN-T 18 — Introduction to Dance **3 Units**
 54 hours of lecture. Degree Appropriate, CSU, UC
Advisory: Eligibility for ENGL 68
 A survey of the profession of dance and its various art forms through lecture, discussion, demonstration, and participation. Includes multi-cultural dance interpretations.

DN-T 20 — History and Appreciation of Dance **3 Units**
 54 hours of lecture. Degree Appropriate, CSU, UC
Advisory: Eligibility for ENGL 68
 Survey of dance in western civilization. History of dance in chronological sequence emphasizing the cultural background and historical development of various forms and styles of dance to include discussion of the influence of dance on other art forms.

DISABLED STUDENTS

DSPS 10 — College Transition Strategies for Students with Disabilities **3 Units**
Formerly DSPS 61 Non-Degree Credit
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of lecture.
Advisory: Eligibility for READ 80
 Introduces students with disabilities to college, including campus resources and college success factors. Explores strategies for successful transition to college. Topics include self-advocacy, college resources, self-management, educational accommodations, effective learning methods, and goal setting.

DSPS 11 — Assessment of Learning Disabilities **1 Unit**
Formerly DSPS 50 Non-Degree Credit
 (May be taken for Credit/No Credit only.)
 18 hours of lecture.
Advisory: Approval by DSPS Counselor or DSPS Staff
 Introduction to types and causes of learning disabilities and the legal definition of “learning disabled.” Assessment according to statewide assessment procedure. Understanding learning patterns, identifying educational limitations, and evaluating appropriate support services. Orients students to Mt. SAC’s Learning Disability Program.

DSPS 15 — Personalized Career Exploration for Students with Disabilities **1 Unit**
Formerly DSPS 65 Non-Degree Credit
 (May be taken three times for credit.)
 (May be taken for Credit/No Credit only.)
 18 hours of lecture.

Self-evaluation including interests, experiences, personality, values, and disability-related limitations as they relate to educational and career decisions. Identification of skills and resources, including those that relate to disability factors. Students who repeat this course will improve skills through further instruction and practice.

DSPS 16 — Educational and Career Options for Students with Disabilities **1 Unit**
Formerly DSPS 66 Non-Degree Credit
 (May be taken three times for credit.)
 (May be taken for Credit/No Credit only.)
 18 hours of lecture.

Students will identify educational and career options. Emphasis on strategies that facilitate disability-sensitive career and educational planning. Barriers to employment and other disability issues are addressed. Students who repeat this course will improve skills through further instruction and practice.

DSPS 20 — Improving Spelling and Reading of Words **3 Units**
 (May be taken three times for credit.) Pre-Collegiate
 (May be taken for Credit/No Credit only.)
 54 hours of lecture.

Improve reading and spelling skills for multi-syllabic words. Includes sounding letters, oral movements, and common “rules” for reading and spelling words. Students who repeat this course will improve skills through further instruction and practice.

DSPS 30 — Academic Success Strategies for Students with Disabilities **1 Unit**
 (May be taken four times for credit.) Non-Degree Credit
 (May be taken for Credit/No Credit only.)
 54 hours of lab.
Advisory: Concurrent enrollment in ENGL 67 or above, or MATH 50 to MATH 130

Strategies for academic success in relationship to disabilities. Primary emphasis will be on the effects of and strategies for auditory processing, language expression, memory, fluid reasoning and performance speed. Secondary emphasis will be on strategies to improve subject-specific performance. Students who repeat this course will improve skills through further instruction and practice.

DSPS 31 — Memory Strategies for Students with Disabilities **3 Units**
 (May be taken two times for credit.) Non-Degree Credit
 (May be taken for Credit/No Credit only.)
 54 hours of lecture.
Advisory: Eligibility for READ 80. Student should have at least one other academic class for application of strategies.

Principles of the memory process as it applies to academic coursework. Focus on understanding the memory process, improving specific memory components, identifying key concepts to memorize, and the independent application of memory strategies to students’ other academic courses. Students who repeat this course will improve skills through further instruction and practice.

DSPS 52 — Cognitive Processing Skills **1 Unit**
 (May be taken four times for credit.) Pre-Collegiate
 (May be taken for Credit/No Credit only.)
 54 hours of lab.

Improves cognitive skills (attention, memory, thinking) essential for success in college course work. Secondary emphasis on perceptual skills (visual-perceptual and auditory conceptualization) when problems in such skills affect academic performance. Students who repeat this course will improve skills through further instruction and practice.

DSPS 53 — Understanding Language in Print **3 Units**
 (May be taken two times for credit.) Pre-Collegiate
 (May be taken for Credit/No Credit only.)
 54 hours of lecture.

Designed to improve the learning disabled student’s overall reading skills, especially in college level textbooks. Using a variety of printed materials and computer drills, student will strengthen his/her reading comprehension, textbook reading skills, and vocabulary skills. Students who repeat will continue to improve their reading skills.

DSPS 54 — Producing Language in Print **3 Units**
 (May be taken two times for credit.) Non-Degree Credit
 (May be taken for Credit/No Credit only.)
 54 hours of lecture.

Designed for the student with specific learning disabilities. Emphasis will be on the types of writing problems that a learning disability may cause and the appropriate strategies for overcoming these problems. Students who repeat will continue to improve writing skills.

DSPS 55 — Mathematical Concepts and Strategies for the Learning Disabled **3 Units**
 (May be taken two times for credit.) Pre-Collegiate
 (May be taken for Credit/No Credit only.)
 54 hours of lecture.

Designed for the student with a learning disability to master quantitative concepts and develop problem-solving skills in arithmetic. Additionally, the student will acquire learning strategies allowing them to function successfully upon qualification for a mainstream math class (MATH 50 or 51). Students who repeat this course will increase their skills and proficiency through further instruction and practice.

DSPS 56 — Fundamental Reading Skills **3 Units**
 (May be taken three times for credit.) Pre-Collegiate
 (May be taken for Credit/No Credit only.)
 54 hours of lecture.
 Designed to improve the reading comprehension of students who are deaf or hard of hearing. Emphasis will be placed on vocabulary development, learning meaning from context, and identifying the main idea. Students who repeat this course will improve skills through further instruction and practice.

DSPS 57 — Fundamental Grammar Skills **3 Units**
 (May be taken three times for credit.) Pre-Collegiate
 (May be taken for Credit/No Credit only.)
 54 hours of lecture.
 Designed to improve the basic writing skills of students who are deaf or hard of hearing. Emphasis will be placed on spelling, grammar, vocabulary, and basic sentence structure. Students who repeat this course will improve skills through further instruction and practice.

DSPS 63 — Improving Communicative Effectiveness **3 Units**
 (May be taken four times for credit.) Non-Degree Credit
 (May be taken for Credit/No Credit only.)
 54 hours of lecture.
 Develops effective communication skills for interpersonal communication and public presentations. Increases skills in effective listening, speaking conversationally, attending to the nonverbal and social "rules" of communication, and making oral presentations to a group. Prepares students for SPCH 1A or other speech classes. Students who repeat this course will improve skills through further instruction and practice.

DSPS 67 — Job Search for Students with Disabilities **1 Unit**
 (May be taken two times for credit.) Pre-Collegiate
 (May be taken for Credit/No Credit only.)
 18 hours of lecture.
 Assists students with disabilities in conducting job searches. Addresses issues faced by students with disabilities, including the Americans with Disabilities Act, illegal questions about disabilities, and when and how to discuss appropriate on-the-job accommodations. Students who repeat this course will improve skills through further instruction and practice.

EDUCATION

EDUC 10 — Introduction to Education **3 Units**
 54 hours of lecture. Degree Appropriate, CSU, UC
 An introduction to the field of education for students interested in teaching at the elementary or secondary level. Principles and issues are explored including: history, philosophy, politics of education, needs of learners, curricula and educational specialization. Course includes guidance in the selection of a future area of specialization as well as classroom observations.

EDUC 16 — Aspects and Issues in Teaching Service Learning **3 Units**
 54 hours of lecture. Degree Appropriate, CSU, UC
Advisory: Eligibility for ENGL 68
 Survey of the teaching profession, providing students opportunities to explore aspects of the career, including teaching and learning styles, state content standards and testing, recent California and national legislation, social issues, school funding and teacher rights and responsibilities.

ELECTRONICS

ELEC 11 — Technical Applications in Microcomputers **3 Units**
 (May be taken two times for credit.) Degree Appropriate, CSU
 36 hours of lecture.
 54 hours of lab.
 Use of the personal computer (PC) in electronics for technically related applications. Includes word processing, spreadsheets, database, computer presentation methods, e-mail, and job searches. Students who repeat this course will improve skills through further instruction and practice.

ELEC 12 — Computer Simulation and Troubleshooting **2 Units**
 (May be taken two times for credit.) Degree Appropriate
 18 hours of lecture.
 54 hours of lab.
Advisory: ELEC 51, ELEC 56 taken prior
 Use of the personal computer for simulation and troubleshooting of both analog and digital electronic circuits. Circuit analysis, value substitution, and fault diagnostics will be done with the emphasis on "Electronics Workbench/Multisim" software. Students who repeat this course will improve skills through further instruction and practice.

ELEC 50A — Electronics Theory **2 Units**
 36 hours of lecture. Degree Appropriate, CSU
Advisory: Eligibility for MATH 51; ELEC 50AL, ELEC 61, ELMA 65A taken concurrently
 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.)

ELEC 50AL — Electronics Laboratory **1 Unit**
 54 hours of lab. Degree Appropriate, CSU
Corequisite: ELEC 50A
 Laboratory experiments in DC circuitry covering concepts presented in ELEC 50A. Emphasizes safety, breadboarding skills, data collection and reporting, and test equipment.

ELEC 50B — Electronics Theory **2 Units**
 36 hours of lecture. Degree Appropriate, CSU
Advisory: ELEC 50A taken prior; ELEC 50BL, ELMA 65B taken concurrently
 AC circuit theory covering inductors, capacitors, impedance, filters, decibels, and resonance. Analysis involves the use of complex numbers. Stresses passive components.

ELEC 50BL — Electronics Laboratory **1 Unit**
 54 hours of lab. Degree Appropriate, CSU
Corequisite: ELEC 50B
 Laboratory experiments in AC circuitry covering concepts presented in ELEC 50B. Emphasizes breadboarding skills, data collection and reporting, and test equipment.

ELEC 51 — Electronic Devices Theory **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
Advisory: ELEC 50B taken prior and ELEC 51L taken concurrently
 Solid-state devices and circuits, including BJT and FET transistors, rectifier diodes, op-amps, voltage regulators, oscillators, and timers. Emphasizes configurations, classes, load lines, characteristics curves, gain, troubleshooting, and frequency response.

ELEC 51L — Electronic Devices Laboratory **1 Unit**
 54 hours of lab. Degree Appropriate, CSU
Advisory: ELEC 51 taken concurrently
 Laboratory experiments in solid-state circuitry, covering concepts presented in ELEC 51. Emphasizes bread boarding skills, data collection and reporting, troubleshooting, and test equipment.

ELEC 53 — Communications Circuits Theory **3 Units**
 54 hours of lecture. Degree Appropriate
Advisory: ELEC 51 taken prior, ELEC 53L taken concurrently
 Analog and digital communication circuits theory. Emphasizes analog and digital modulation principles in AM, FM, SSB, PLL, FDM, TDM, modems, fiber optics, and telecommunications circuits.

ELEC 53L — Communications Circuits Laboratory **1 Unit**
 54 hours of lab. Degree Appropriate
Advisory: ELEC 51 taken prior and ELEC 53 taken concurrently
 Laboratory experiments in communication circuits covering concepts presented in ELEC 53. Emphasis is on proper use of test equipment, test procedures, breadboarding, and analysis in both analog and digital modulation circuits.

ELEC 54A — Industrial Circuits Theory **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
Advisory: ELEC 51 taken prior and ELEC 54AL taken concurrently
 Industrial electronic components and basic control circuits. Includes time delay controls, solid-state controls, relays, opto devices, DC motor control, transducers, SCR, and UJT devices.

ELEC 54AL — Industrial Circuits Laboratory **1 Unit**
 54 hours of lab. Degree Appropriate, CSU
Corequisite: ELEC 54A
 Laboratory experiments in industrial circuits, covering concepts presented in ELEC 54A. Emphasizes basic industrial control circuits, test equipment, and proper testing procedures.

Course Descriptions

ELEC 54B — Industrial Electronic Systems **2 Units**
36 hours of lecture. Degree Appropriate, CSU
Advisory: ELEC 54A taken prior; ELEC 54BL taken concurrently
Expands on circuit theory and demonstrates systems application of industrial electronics including robotics, industrial production, automation, programmable and motor controllers. Emphasis is on programmable logic controllers.

ELEC 54BL — Industrial Electronic Systems Laboratory **1 Unit**
54 hours of lab. Degree Appropriate, CSU
Corequisite: ELEC 54B
Laboratory experiments in industrial control circuits, covering concepts presented in ELEC 54B. Includes troubleshooting procedures and system application of industrial electronics. Emphasizes programmable logic controllers and use of "ladder diagrams."

ELEC 55 — Microwave Communications **3 Units**
54 hours of lecture. Degree Appropriate
Advisory: ELEC 53 taken prior and ELEC 55L taken concurrently
Microwave components, circuit theory, and their applications with emphasis on satellite technology. Stresses Gunn diode oscillators, transmission lines, waveguides, Smith Charts, components, amplification, frequency analysis, and measurement techniques.

ELEC 55L — Microwave Communications Laboratory **1 Unit**
54 hours of lab. Degree Appropriate
Advisory: ELEC 55 taken concurrently
Laboratory experiments in microwave communication theory covering concepts presented in ELEC 55. Emphasizes data collection and reporting, measurement techniques, and test equipment.

ELEC 56 — Digital Electronics **3 Units**
54 hours of lecture. Degree Appropriate, CSU
Advisory: ELEC 56L taken concurrently
Combinational and sequential logic circuits emphasizing number systems, binary math, basic gates, Boolean algebra, Karnaugh maps, flip-flops, counters, and registers. Stresses design and troubleshooting techniques.

ELEC 56L — Digital Electronics Laboratory **1 Unit**
54 hours of lab. Degree Appropriate, CSU
Corequisite: ELEC 56
Laboratory experiments in combinational and sequential logic circuits covering concepts presented in ELEC 56. Emphasizes breadboarding skills, data collection and reporting, and test equipment.

ELEC 60 — Customer Relations for the Technician **1 Unit**
(May be taken two times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
18 hours of lecture.
Customer relations (soft skills) for the technician including benefits of knowing and using effective customer contact tools, proper customer interactions, ethics, and maintaining customer satisfaction.

ELEC 61 — Electronic Assembly and Fabrication **2 Units**
(May be taken two times for credit.) Degree Appropriate, CSU
18 hours of lecture.
54 hours of lab.
Assembly and fabrication techniques in basic soldering, de-soldering, and surface mount technology. Construction of coaxial and Category 5 cabling and connectors. Includes an overview of types of printed circuit board design. Students who repeat this course will improve skills through instruction and practice.

ELEC 62 — Advanced Surface Mount Assembly and Rework **2 Units**
(May be taken two times for credit.) Non-Degree Credit
18 hours of lecture.
54 hours of lab.
Advisory: ELEC 61, ELEC 61L
Advanced course in assembly and repair on surface mount assemblies. Prepares student for PACE surface mount assembly and rework certification. Students who repeat this course will improve skills through further instruction and practice.

ELEC 74 — Microprocessor Systems **3 Units**
54 hours of lecture. Degree Appropriate, CSU
Advisory: ELEC 56 taken prior and ELEC 74L taken concurrently
Emphasizes the software/hardware architecture for the typical microprocessor environment. The software instruction set and the hardware interface circuit design are covered for the microprocessor. Fundamentals and terms are covered for the personal computer (PC).

ELEC 74L — Microprocessor Systems Laboratory **1 Unit**
54 hours of lab. Degree Appropriate, CSU
Advisory: ELEC 74 taken concurrently
Laboratory experiments in microprocessor programming and interfacing utilizing concepts presented in the lecture portion of this class. Emphasis is on the programming and debugging of software programs and interfacing circuits.

ELEC 76 — Radio Telephone Communications **3 Units**
(May be taken two times for credit.) Non-Degree Credit
54 hours of lecture.
Prepares qualified electronic technicians for the F.C.C. and/or N.A.R.T.E. commercial licenses for technicians and engineers in the communications field. Students who repeat this course will improve skills through further instruction and practice.

ELEC 81 — Laboratory Studies in Electronics Technology **1 Unit**
(May be taken two times for credit.) Degree Appropriate
54 hours of lab.
Advisory: ELEC 50B taken prior or concurrently plus a laboratory course in the same subject field
Extended laboratory experience supplementary to that available in the regular program. Allows the student to pursue more advanced and complex laboratory projects and experiments.

ELEC 82 — Laboratory Studies in Electronics Technology **2 Units**
(May be taken two times for credit.) Non-Degree Credit
108 hours of lab.
Advisory: ELEC 50B taken prior or concurrently plus a laboratory course in the same subject field
Extended laboratory experience supplementary to that available in the regular program. Allows student to pursue more advanced and complex laboratory projects and experiments.

ELEC 90 — Survey of Electronics **3 Units**
54 hours of lecture. Non-Degree Credit
Overview of the electronics industry for those with no background in electronics. Includes electronic components, basic DC and AC circuits, solid-state devices, circuit theory, schematic diagrams, and their applications to the computer, industrial, and communication fields of electronics. Surveys employment opportunities, job descriptions, and degree requirements for various types of electronic jobs.

ELEC 91 — Work Experience in Electronics **1 Unit**
(May be taken four times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
75 hours of lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Advisory: ELEC 56
Provides actual on-the-job experience in Electronics at an approved work site which is related to classroom instruction. A minimum of five hours per week of supervised work (60 non-paid clock hours or 75 paid clock hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.

ELEC 92 — Work Experience in Electronics **2 Units**
Spring Semester Degree Appropriate
(May be taken four times for credit.)
(May be taken for Credit/No Credit only.)
150 hours of lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
Advisory: ELEC 56
Provides actual on-the-job experience in Electronics at an approved work site which is related to classroom instruction. A minimum of five hours per week of supervised work (60 non-paid clock hours or 75 paid clock hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.

ELEC 93 — Work Experience in Electronics **3 Units**
 (May be taken four times for credit.) Degree Appropriate
 (May be taken for Credit/No Credit only.)
 225 hours of lab.

Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog

Advisory: ELEC 56

Provides actual on-the-job experience in Electronics at an approved work site which is related to classroom instruction. A minimum of five hours per week of supervised work (60 non-paid clock hours or 75 paid clock hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.

ELEC 94 — Work Experience in Electronics **4 Units**
 (May be taken four times for credit.) Degree Appropriate
 (May be taken for Credit/No Credit only.)
 300 hours of lab.

Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog

Advisory: ELEC 56

Provides actual on-the-job experience in Electronics at an approved work site which is related to classroom instruction. A minimum of five hours per week of supervised work (60 non-paid clock hours or 75 paid clock hours per semester) is required for each one unit of credit. Students who repeat this course will improve skills through further instruction and practice.

ELECTRONICS CABLING & WIRING TECHNOLOGY

ECWT 50 — Electrical Fundamentals for Cable Installations **4 Units**
 54 hours of lecture. Degree Appropriate
 54 hours of 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.

ECWT 52 — Fabrication Techniques for Cable Installations **4 Units**
 54 hours of lecture. Degree Appropriate
 54 hours of 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.

ECWT 54 — Cabling and Wiring Standards **4 Units**
 54 hours of lecture. Degree Appropriate
 54 hours of lab.

Advisory: ECWT 50, ECWT 52

Cable and wire standards of video, voice, and data wiring for home theater, computer networks, home automation, telecommunications, and other low voltage system installations. Emphasis on copper wire, coax, fiber optic, and structured cables.

ECWT 56 — Home Theater and Home Automation Systems **4 Units**
 54 hours of lecture. Degree Appropriate
 54 hours of lab.

Advisory: ECWT 54

Home theater, home automation, and other home management systems. Emphasis on home theater, home management PLCs, security hardware and programming, and the installation and servicing of such systems.

ELECTRONICS MATHEMATICS

ELMA 65A — Mathematics of Electronics **2 Units**
 36 hours of lecture. Degree Appropriate, CSU

Advisory: Eligibility for MATH 51; ELEC 50A taken concurrently
 Mathematics of DC circuits analyzing passive circuits including Ohm's Law, Kirchoff's Law, voltage dividers, current dividers, and network theorems.

ELMA 65B — Mathematics of Electronics **2 Units**
 36 hours of lecture. Degree Appropriate, CSU

Advisory: ELMA 65A taken prior; ELEC 50B taken concurrently
 Mathematics of AC circuits analyzing passive circuits including resistance, reactance, impedance, resonance, and complex numbers (polar and rectangular).

EMERGENCY MEDICAL SERVICE

EMS 1 — Fundamentals for Paramedics **4 Units**
 (May be taken four times for credit.) Degree Appropriate
 72 hours of lecture.

Prerequisite: Completed Paramedic Program application, current California EMT I (Basic) certificate, and six months employment as an EMT I
Advisory: Eligibility for ENGL 68

Overview of emergency medical services (EMS) competencies, current practices, medical terminology, emphasis on applied physiology and structure and function of human body systems. Pre-course for the Paramedic Program. Students who repeat this course will improve skills through further instruction and practice.

EMS 10 — Anatomy and Physiology for Paramedics **2 Units**
 39 hours of lecture. Degree Appropriate

Prerequisite: Admission to Paramedic Program and EMS 1
Corequisite: EMS 20, EMS 30, EMS 40, EMS 50, and EMS 60

Gross anatomy and physiology of the human body, with applications to paramedic practices.

EMS 20 — Emergency Cardiac Care for Paramedics **1 Unit**
 20 hours of lecture. Degree Appropriate
 6 hours of lab.

Prerequisite: Admission to the Paramedic Program

Corequisite: EMS 10, EMS 30, EMS 40, EMS 50, and EMS 60

Certifies paramedics in Basic Life Support (BLS-CPR), Pediatric Advanced Life Support (PALS), and Advanced Cardiac Life Support (ACLS).

EMS 30 — Pharmacology for Paramedics **2 Units**
 39 hours of lecture. Degree Appropriate
 13 hours of lab.

Prerequisite: Admission to the Paramedic Program

Corequisite: EMS 10, EMS 20, EMS 40, EMS 50, EMS 60 taken concurrently
 Commonly used paramedic drugs, with emphasis on dosages supplied and ordered, routes of administration, expected therapeutic outcomes and possible adverse reactions.

EMS 40 — Cardiology for Paramedics **5 Units**
 91 hours of lecture. Degree Appropriate

Prerequisite: Admission to the Paramedic Program

Corequisite: EMS 10, EMS 20, EMS 30, EMS 50, EMS 60 taken concurrently
 Familiarizes the paramedic with the normal and the diseased heart; includes assessment tools, interpretation of various dysrhythmias and appropriate paramedic interventions.

EMS 50 — Paramedic Skills Competency **4.5 Units**
 52 hours of lecture. Degree Appropriate
 104 hours of lab.

Prerequisite: Admission to the Paramedic Program

Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, and EMS 60

Perfect the paramedic skills required for field operation as a paramedic and for certification in competency-based exams.

EMS 60 — EMS Theory for Paramedics **8.5 Units**
 156 hours of lecture. Degree Appropriate

Prerequisite: Admission to the Paramedic Program

Corequisite: EMS 10, EMS 20, EMS 30, EMS 40, and EMS 50

Theories and principles of paramedic practices, including assessment skills, care of the sick and injured at a paramedic level, with applications to anatomy and physiology, pathologic processes, and mechanism of injury.

EMS 70 — Paramedic Clinical Internship **3.5 Units**
 (May be taken for Credit/No Credit only.) Degree Appropriate
 200 hours of lab.

Corequisite: EMS 60 (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 hospital setting.

Course Descriptions

EMS 80 — Paramedic Field Externship **8.5 Units**
(May be taken for Credit/No Credit only.) Degree Appropriate
480 hours of lab.

Prerequisite: Successful completion of Los Angeles County certifying examinations

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.

EMERGENCY MEDICAL TECHNICIAN

EMT 90 — Emergency Medical Technician I **9 Units**
126 hours of lecture. Degree Appropriate
126 hours of lab.

Prerequisite: High school graduation or equivalent and minimum of 18 years of age

Approved by the L.A. County and State Departments of Health. Emphasizes the development of skill in recognition of symptoms of illnesses and injuries, and proper procedures of pre-hospital emergency care. Awards an EMT - I Course Completion Certificate, necessary for many jobs in emergency care and is a prerequisite for entry into a Paramedic program and most fire department jobs.

EMT 91 — Emergency Medical Technician I Refresher **2 Units**
(May be taken four times for credit.) Degree Appropriate
40 hours of lecture.

Prerequisite: Completion of a State or County Department of Health (or out-of-state) approved course and possession of a currently valid EMT-I certificate or one which has expired for no more than 20 months

Approved by the L.A. County and State Departments of Health. Required of all Emergency Medical Technician - I personnel every two years in order to maintain eligibility for employment in an emergency response agency and to keep certification valid. Course covers all required material and current changes/updates in pre-hospital emergency care at the EMT-I level

ENGINEERING

ENGR 1 — Introduction to Engineering **1 Unit**
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
18 hours of lecture.

Introduction to the engineering profession; academic requirements; articulation agreements with four-year institutions; engineering ethics; professional engineering licensure; engineering study as a preparation for other careers; academic success strategies.

ENGR 8 — Properties of Materials **4 Units**
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
72 hours of lecture.

Prerequisite: CHEM 40 or 50 and PHYS 4A or 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; electronic packaging materials.

ENGR 18 — Introduction to Engineering Graphics **3 Units**
Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of lecture.

54 hours of 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**
(CAN ENGR 2) Degree Appropriate, CSU, UC
36 hours of lecture.

108 hours of lab.

Prerequisite: ENGR 18 and eligibility for MATH 51

Advisory: COMP 15A
Graphical expression through CAD, freehand sketching and instrument drawing; orthographic, isometric and oblique drawing and dimensioning, tolerancing. Fasteners, cams, gears, pipe drawings. Descriptive geometry: points, lines and planes. Intersections and developments of solids; sheet metal, electrical and civil engineering/surveying drawings.

ENGR 40 — Statics **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: PHYS 4A

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. Vector approach.

ENGR 41 — Dynamics **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: ENGR 40

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. Introduction to mechanical vibrations. Vector approach.

ENGR 42 — Mechanics of Materials **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: ENGR 40

Mechanics of deformable bodies subjected to axial, torsional, shearing, and bending loads. Combined stresses. Statically indeterminate structures. Deflection and stress analysis of beams. Stability of columns. Strain energy methods. Design of pressure vessels and structures.

ENGR 43 — Statics and Dynamics **4 Units**
Degree Appropriate, CSU, UC
72 hours of lecture.

Prerequisite: PHYS 4A

Advisory: Eligibility for ENGL 68

Statics and dynamics of particles and rigid bodies. Statics, kinematics and kinetics of particles and rigid bodies. Applications of Newton's Laws, work energy, and impulse-momentum methods.

ENGR 44 — Electrical Engineering **4 Units**
(CAN ENGR 6) Degree Appropriate, CSU, UC
Spring Semester
54 hours of lecture.

54 hours of lab.

Prerequisite: PHYS 4B
Introduction to electrical circuit analysis; systems of units; applications of Kirchoff's Laws and Thevenin's Theorems to D-C and A-C circuits. Mesh and nodal analysis; RL and RC transients; phasors and steady-state sinusoidal analysis; response as a function of frequency; current, voltage, and power relationships; polyphase circuits; periodic forcing functions; Norton's Theorem; three-phase circuits.

ENGINEERING DESIGN TECHNOLOGY

EDT 11 — Technical Engineering Drawing I **3 Units**
36 hours of lecture. Degree Appropriate, CSU
72 hours of lab.

Advisory: Eligibility for MATH 51

Basic skills for a solid foundation in the Engineering Drawing or Computer-Aided Design fields. Involves application, basic sketch, theories and design processes used in engineering and industrial drawings. Completion of a portfolio is a requirement of this course.

EDT 12 — Technical Engineering Drawing II **3 Units**
36 hours of lecture. Degree Appropriate, CSU
72 hours of lab.

Advisory: EDT 11

Advanced applications, automated techniques, dimensioning, tolerancing, fasteners, piping, circuit board design, theory used in engineering and industrial drawings. Students will complete a set of working drawings in either manual or CAD for inclusion in a portfolio.

<p>EDT 14 — Mechanical Design – Geometric Dimensioning and Tolerancing 3 Units 36 hours of lecture. Degree Appropriate, CSU 72 hours of lab. <i>Advisory: EDT 11, EDT 12</i> Use of symbols for tolerance of form and tolerance of position and drawing requirements with respect to actual function and relationship of part features. Studies of related terminology, power transmission, bearing and mechanical devices, related exercises including design layout, details and assembly drawings. Completion of a portfolio is a requirement of this course.</p>	<p>EDT 26 — Civil Engineering Technology and CAD 3 Units 36 hours of lecture. Degree Appropriate, CSU 72 hours of lab. <i>Advisory: EDT 11, EDT 16</i> Theory of civil engineering projects with hands-on instruction in civil drawings and Computer Aided Drafting and Design (CAD) applications. Layout, topography maps, grading plans, sections, street improvements, and interpretation of surveyor's data are covered. Set of CAD drawings produced for a final portfolio.</p>	<p style="text-align: center;">ENGLISH</p> <p>ENGL 1A — Freshman Composition 4 Units (CAN ENGL 2) Degree Appropriate, CSU, UC 72 hours of lecture. <i>Prerequisite: ENGL 68 or satisfactory score on the English Placement Test</i> Develops effective expository writing skills; investigates the principles and methods of composition as applied to the writing of essays and the research paper; emphasizes critical reading of academic material.</p>
<p>EDT 16 — Basic CAD and Computer Applications 4 Units (May be taken two times for credit.) Degree Appropriate, CSU 54 hours of lecture. 54 hours of lab. <i>Advisory: Eligibility for MATH 51</i> 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.</p>	<p>EDT 28 — Engineering CAD 3-D Illustration/Animation 3 Units (May be taken three times for credit.) Degree Appropriate, CSU 36 hours of lecture. 72 hours of lab. <i>Advisory: EDT 18</i> Advanced CAD course in three-dimensional illustration using complex entities, shading, and animation techniques. A completed video portfolio will be developed. (SolidWorks, 3DS Max, Adobe PS). Students who repeat this course will improve skills through further instruction and practice.</p>	<p>ENGL 1AH — Freshman Composition – Honors 4 Units (CAN ENGL 2) Degree Appropriate, CSU, UC 72 hours of lecture. <i>Prerequisite: Acceptance into the Honors Program</i> Develops effective expository writing skills; investigates the principles and methods of composition as applied to the writing of essays and the research paper; emphasizes critical reading of academic material. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1A and ENGL 1AH.</p>
<p>EDT 18 — Engineering CAD Applications 4 Units (May be taken three times for credit.) Degree Appropriate, CSU 54 hours of lecture. 54 hours of lab. <i>Advisory: EDT 11, EDT 16</i> Intermediate CAD for engineering, explores the 2-D and 3-D environments, 3-D parametric solid modeling, file manipulation related to Windows platforms. Students who repeat this course will improve proficiency and skill levels.</p>	<p>EDT 89 — Engineering Design Technology Work Experience 1 Unit (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 75 hours of lab. <i>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog</i> Provides on-the-job experience in Engineering Design Technology at an approved work site using skills and knowledge from classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. This course is available to students achieving advanced standing (minimum 12 units in major or equivalent experience.) Students who repeat this course will improve skills through further instruction and practice.</p>	<p>ENGL 1B — English – Introduction to Literary Types 3 Units (CAN ENGL 4) Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite: ENGL 1A or ENGL 1AH</i> 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.</p>
<p>EDT 20 — Technical Descriptive Geometry 3 Units Spring Semester Degree Appropriate, CSU 36 hours of lecture. 72 hours of lab. <i>Advisory: EDT 11</i> Advanced course for solving visual and spatial problems graphically. Applies the principles of orthographic projection and 3-D visualization to solve problems that involve lines, planes, intersections, auxiliary views, and developments. A time saving skill necessary for prospective engineers and technology students.</p>	<p>EDT 90 — Engineering Design Technology Work Experience 2 Units (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 150 hours of lab. <i>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog.</i> Provides on-the-job experience in Engineering Design Technology at an approved work site using skills and knowledge from classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. This course is available to students achieving advanced standing (minimum 12 units in major or equivalent experience.) Students who repeat this course will improve skills through further instruction and practice.</p>	<p>ENGL 1BH — English – Introduction to Literary Types – Honors 3 Units (CAN ENGL 4) Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite: ENGL 1A or ENGL 1AH and acceptance into the Honors Program</i> 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 for accelerated students. Students may not receive credit for both ENGL 1B and ENGL 1BH.</p>
<p>EDT 24 — Engineering CAD 3-D Solids and Surfaces 3 Units (May be taken two times for credit.) Degree Appropriate, CSU 36 hours of lecture. 72 hours of lab. <i>Advisory: EDT 18</i> Advanced engineering CAD for developing detailed working drawings in 3-D environments, incorporating 3-D parametric solid modeling, bill of materials, and surface development. Students who repeat this course will improve proficiency and skill levels.</p>		<p>ENGL 1C — Critical Thinking and Writing 4 Units 72 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: ENGL 1A or ENGL 1AH</i> Develops critical thinking, reading, and writing skills beyond the level achieved in ENGL 1A. Increases the student's capacity for logical analysis and argumentative writing.</p>

Course Descriptions

ENGL 1CH — Critical Thinking and Writing – Honors **4 Units**
72 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: ENGL 1A or ENGL 1AH and acceptance into the Honors Program
Develops critical thinking, reading, and writing skills beyond the level achieved in ENGL 1A. The course will increase the student's capacity for logical analysis and argumentative writing. An honors course designed to provide an enriched experience. Students may not receive credit for both ENGL 1C and ENGL 1CH.

ENGL 8A — Creative Writing – Fiction **3 Units**
(CAN ENGL 6) Degree Appropriate, CSU, UC
ENGL 8A OR ENGL 8B = CAN ENGL 6
(May be taken two times for credit.)
(May be taken for option of letter grade or Credit/No Credit.)
54 hours of lecture.
Prerequisite: ENGL 1A or ENGL 1AH
Emphasizes student's development as a writer of fiction. Students will learn processes, techniques, and improve skills through practice and discussion.

ENGL 8B — Creative Writing – Poetry **3 Units**
(CAN ENGL 6) Degree Appropriate, CSU, UC
ENGL 8A OR ENGL 8B = CAN ENGL 6
(May be taken two times for credit.)
(May be taken for option of letter grade or Credit/No Credit.)
54 hours of lecture.
Prerequisite: ENGL 1A or ENGL 1AH
Emphasizes the student's development as a poet. Students who repeat this course will improve skills through further instruction and practice.

ENGL 9 — Writing the Personal Journal **3 Units**
(May be taken two times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
54 hours of lecture.
Prerequisite: Eligibility for ENGL 1A
A unique method of personal exploration through writing a journal. The journal method will be patterned after Dr. Ira Progoff's concept of creativity and growth. Students who repeat this course will improve skills by further instruction and practice.

ENGL 10 — Writing Enhancement **1 Unit**
(May be taken three times for credit.) Non-Degree Credit
(May be taken for option of letter grade or Credit/No Credit.)
18 hours of lecture.
Linked with a corresponding English course, this course provides hands-on writing activities designed to enhance student success and abilities in the linked course. Supplemental learning activities such as individualized instruction; individualized, self-paced practice; group work and student presentations. Students who repeat this course will improve skills through further instruction and practice.

ENGL 64 — Writing Effective Sentences **1 Unit**
(May be taken two times for credit.) Pre-Collegiate
(May be taken for option of letter grade or Credit/No Credit.)
18 hours of lecture.
Prerequisite: Eligibility for ENGL 67
Improve sentence writing skills through the analysis and application of sentence elements. Includes the identification and correction of common sentence problems, such as comma splice, fragment, and run-on. Students who repeat this course will improve skills through further instruction and practice.

ENGL 65 — Grammar Review **1 Unit**
(May be taken two times for credit.) Pre-Collegiate
(May be taken for option of letter grade or Credit/No Credit.)
18 hours of lecture.
Prerequisite: Eligibility for ENGL 67
A review of the fundamentals of English for the student who needs a practical course focusing on usage and grammar: case, agreement, verbs, verbals, fragments, shifts in construction, dangling modifiers, diction, parallelism, comma-splice, and punctuation. Students who repeat this course will improve skills through further instruction and practice.

ENGL 66 — Paragraph Writing **1 Unit**
(May be taken two times for credit.) Pre-Collegiate
(May be taken for option of letter grade or Credit/No Credit.)
18 hours of lecture.
Prerequisite: Eligibility for ENGL 67
Analysis and writing of paragraphs. Through the process of writing, the student learns to state and support a topic idea. Students who repeat this course will improve skills through further instruction and practice.

ENGL 67 — English – Writing **3 Units**
(May be taken two times for credit.) Pre-Collegiate
(May be taken for option of letter grade or Credit/No Credit.)
54 hours of lecture.
Prerequisite: Satisfactory score on the English Placement Test or completion of AMLA 42W or completion of LERN 81
Using an integrated approach, develops effective writing based on reading; emphasizing the sentence, the outline, the summary, the paragraph and an introduction to the essay. Gives attention to grammar, punctuation and vocabulary. Develops critical thinking through reading comprehension in conjunction with related writing. Students who repeat this course will improve skills by further instruction and practice.

ENGL 68 — English – Writing **3 Units**
(May be taken two times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
54 hours of lecture.
Prerequisite: ENGL 67 or satisfactory score on the English Placement Test or completion of AMLA 43W

Stresses the skills and techniques necessary for correct writing. Each student writes sentences, expository paragraphs and at least two short expository themes. Attention is given to the problems of usage and punctuation. Students who repeat this course will improve skills through further instruction and practice.

ENGL 75 — Vocabulary Building **3 Units**
(May be taken two times for credit.) Pre-Collegiate
(May be taken for option of letter grade or Credit/No Credit.)
54 hours of lecture.
Prerequisite: Eligibility for ENGL 67
Expands students' reading, writing and speaking vocabularies through examination of the principles of word formation, emphasizing prefixes, roots, suffixes and the effective use of dictionaries and other reference works. Students who repeat this course will improve skills through further instruction and practice.

ENGL 81 — Language Acquisition **3 Units**
54 hours of lecture. Degree Appropriate, CSU
Prerequisite: ENGL 1A
Introductory course in language structure, linguistics, language development. Explores first and second-language acquisition. Meets the Commission on Teaching Credentialing standards for Language Acquisition requirement for elementary school teaching credential.

ENGL 99 — Special Projects in English **2 Units**
(May be taken four times for credit.) Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of lecture.
To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.

FAMILY & CONSUMER SCIENCES

FCS 41 — Life Management **3 Units**
54 hours of lecture. Degree Appropriate, CSU
Life management provides individuals with skills for understanding and using resources for effective functioning now and in the future. Explores theories of management including systems thinking and applies to the day-to-day use of one's resources including time, energy, abilities, and money. Major topics include steps in goal setting; problem solving and value clarifications; time, energy, stress, and conflict management; effect of cultural forces and future trends on goals, values, standards, and time management.

<p>FCS 80 — Financial Planning 3 Units 54 hours of lecture. Degree Appropriate, CSU Functional approach to personal finance, including budget systems, consumer credit, health care and insurance, debt collection systems, status obligation, accumulating reserves. Examines short-term and long-term financial goals. Applicable for personal and professional use. Students may not earn credit for both BUSA 71 and FCS 80.</p>	<p>This course provides extended laboratory experiences supplementary to those available in the regular program and allows the student to pursue more advanced and complex laboratory projects and experiments. Students who repeat this course will increase skill proficiencies in Family and Consumer Sciences.</p>	<p>FCS 94 — Work Experience in Family and Consumer Sciences 4 Units (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 300 hours of lab. <i>Prerequisite: Compliance with work experience regulations as designated in the College Catalog</i> Provides Family and Consumer Sciences majors with actual on-the-job experience in an approved work site related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed but assistance is provided by the Family and Consumer Sciences faculty. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>FCS 81 — Laboratory Studies in Family and Consumer Sciences 1 Unit (May be taken two times for credit.) Degree Appropriate 54 hours of lab. <i>Prerequisite: Laboratory course in the same subject field and program specialization and depending on space availability</i> This course provides extended laboratory experiences supplementary to those available in the regular program and allows the student to pursue more advanced and complex laboratory projects and experiments. Students who repeat this course will increase skill proficiencies in Family and Consumer Sciences.</p>	<p>FCS 91 — Work Experience in Family and Consumer Sciences 1 Unit (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 75 hours of lab. <i>Prerequisite: Compliance with work experience regulations as designated in the College Catalog</i> Provides Family and Consumer Sciences majors with actual on-the-job experience in an approved work site related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed but assistance is provided by the Family and Consumer Sciences faculty. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>FCS 92 — Work Experience in Family and Consumer Sciences 2 Units (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 150 hours of lab. <i>Prerequisite: Compliance with work experience regulations as designated in the College Catalog</i> Provides Family and Consumer Sciences majors with actual on-the-job experience in an approved work site related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed but assistance is provided by the Family and Consumer Sciences faculty. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>FCS 82 — Laboratory Studies in Family and Consumer Sciences 2 Units (May be taken two times for credit.) Degree Appropriate 108 hours of lab. <i>Prerequisite: Laboratory course in the same subject field and program specialization and depending on space availability</i> This course provides extended laboratory experiences supplementary to those available in the regular program and allows the student to pursue more advanced and complex laboratory projects and experiments. Students who repeat this course will increase skill proficiencies in Family and Consumer Sciences.</p>	<p>FCS 93 — Work Experience in Family and Consumer Sciences 3 Units (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 225 hours of lab. <i>Prerequisite: Compliance with work experience regulations as designated in the College Catalog</i> Provides Family and Consumer Sciences majors with actual on-the-job experience in an approved work site related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed but assistance is provided by the Family and Consumer Sciences faculty. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>FCS 95 — Work Experience in Family and Consumer Sciences 3 Units (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 150 hours of lab. <i>Prerequisite: Compliance with work experience regulations as designated in the College Catalog</i> Provides Family and Consumer Sciences majors with actual on-the-job experience in an approved work site related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed but assistance is provided by the Family and Consumer Sciences faculty. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>FCS 83 — Laboratory Studies in Family and Consumer Sciences 3 Units (May be taken two times for credit.) Degree Appropriate 162 hours of lab. <i>Prerequisite: Laboratory course in the same subject field and program specialization and depending on space availability</i> This course provides extended laboratory experiences supplementary to those available in the regular program and allows the student to pursue more advanced and complex laboratory projects and experiments. Students who repeat this course will increase skill proficiencies in Family and Consumer Sciences.</p>	<p>FCS 96 — Work Experience in Family and Consumer Sciences 3 Units (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 150 hours of lab. <i>Prerequisite: Compliance with work experience regulations as designated in the College Catalog</i> Provides Family and Consumer Sciences majors with actual on-the-job experience in an approved work site related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed but assistance is provided by the Family and Consumer Sciences faculty. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>FCS 97 — Work Experience in Family and Consumer Sciences 3 Units (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 150 hours of lab. <i>Prerequisite: Compliance with work experience regulations as designated in the College Catalog</i> Provides Family and Consumer Sciences majors with actual on-the-job experience in an approved work site related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed but assistance is provided by the Family and Consumer Sciences faculty. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>FCS 84 — Laboratory Studies in Family and Consumer Sciences 4 Units (May be taken two times for credit.) Degree Appropriate 216 hours of lab. <i>Prerequisite: Laboratory course in the same subject field and program specialization and depending on space availability</i></p>	<p>FCS 98 — Work Experience in Family and Consumer Sciences 3 Units (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 150 hours of lab. <i>Prerequisite: Compliance with work experience regulations as designated in the College Catalog</i> Provides Family and Consumer Sciences majors with actual on-the-job experience in an approved work site related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed but assistance is provided by the Family and Consumer Sciences faculty. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>FCS 99 — Work Experience in Family and Consumer Sciences 3 Units (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 150 hours of lab. <i>Prerequisite: Compliance with work experience regulations as designated in the College Catalog</i> Provides Family and Consumer Sciences majors with actual on-the-job experience in an approved work site related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed but assistance is provided by the Family and Consumer Sciences faculty. Students who repeat this course will improve skills through further instruction and practice.</p>

FASHION MERCHANDISING & DESIGN

FASH 8 — Introduction to Fashion **3 Units**
 Formerly FASH 60 Degree Appropriate, CSU
 (CAN FCS 22)
 54 hours of lecture.
 Examines scope of the fashion industry from concept to consumer: industry background and technology. Includes design, manufacturing, distribution, sales and promotion with emphasis on career opportunities and qualifications.

FASH 9 — History of Costume and Fashion **3 Units**
 Formerly FASH 61 Degree Appropriate, CSU
 54 hours of lecture.
 A survey of Western costume and fashion from antiquity to contemporary times. Emphasis is placed on style development as it relates to social, economic and political forces, and the relationship of historic styles to current fashion.

FASH 10 — Clothing Fundamentals **3 Units**
 (CAN FCS 10) Degree Appropriate, CSU
 36 hours of lecture.
 54 hours of lab.
 Development of a basic understanding of industry standard apparel construction techniques using a variety of machines and equipment. Included are marker preparation, commercial patterns, basic block fusing, and garment construction of slim skirt/pants, dress/shirt, and knit "T" shirt.

FASH 12 — Advanced Clothing **3 Units**
 36 hours of lecture. Degree Appropriate, CSU
 54 hours of lab.
Prerequisite: FASH 10
 Industry-quick alternatives to traditional construction and tailoring techniques using overlock and single needle machines. Hands-on experience using woven fabrics for tailored clothing and novelty knits.

Course Descriptions

FASH 15 — Fashion Strategies **3 Units**
(CAN FCS 20) Degree Appropriate, CSU
54 hours of lecture.

An investigative overview of sociological, psychological, cultural and fashion industry influences on clothing selection. The elements and principles of design and their impact on dress will be explored.

FASH 17 — Textiles **3 Units**
(CAN FCS 6) Degree Appropriate, CSU, UC
54 hours of lecture.

Examines the manufacturing of textiles/fabrics and factors that determine the suitability for end use. Topics covered include natural and synthetic fibers, yarns, fabric construction, dyes, finishes, legislation and care. Emphasis is placed on selection criteria for textile product design and recent developments in the textile field.

FASH 20 — Illustration for Fashion and Costume Design **3 Units**
(May be taken two times for credit.) Degree Appropriate
36 hours of lecture.

54 hours of lab.
Drawing techniques for fashion and theatrical costume design. Application of the basic techniques used in drawing a well-proportioned male and female figure and in rendering garment flats using texture, fabric, and design detail. Students will explore a variety of mediums. Students who repeat this course will improve through further participation and skill development.

FASH 21 — Basic Patternmaking **3 Units**
36 hours of lecture. Degree Appropriate, CSU
54 hours of lab.

Prerequisite: FASH 10
Theory and application of basic flat patternmaking techniques to create garment designs using industry standards. By means of dart and seam manipulation, slopers will be created, constructed and fitted.

FASH 22 — Fashion Design By Draping **3 Units**
36 hours of lecture. Degree Appropriate
54 hours of lab.

Prerequisite: FASH 10
Three dimensional dress design through draping fabrics directly to a dress form to create original designs or to interpret fashion illustrations.

FASH 23 — Patternmaking II **3 Units**
(May be taken two times for credit.) Degree Appropriate
36 hours of lecture.

54 hours of lab.
Prerequisite: FASH 21

Intermediate pattern drafting and flat patternmaking, with the introduction to the sizing of patterns/grading. Development of patternmaking skills to include two-way stretch knits, swimwear, and complex construction. Students apply commercial manufacturing standards in producing size ranges for misses' and women's wear, to include skirts, pants, bodices, sleeves and collars. Students who repeat this course will improve their skills through further instruction and practice.

FASH 24 — Fashion Patternmaking by Computer **3 Units**
(May be taken two times for credit.) Degree Appropriate
36 hours of lecture.

54 hours of lab.
Advisory: FASH 21
Study of the applications of Computer Aided Design (CAD) patternmaking and grading for the fashion industry. Exploration of drawing techniques, pattern development, flat pattern manipulation and the sizing/grading of patterns. Students who repeat this course will improve skills through further instruction and practice.

FASH 25 — Fashion Computer-Assisted Drawing **3 Units**
(May be taken two times for credit.) Degree Appropriate
36 hours of lecture.

54 hours of lab.
Advisory: FASH 20
Drawing production flats, colorization and scanning images using computer as a drafting tool. Exploration of popular computer techniques and methods suitable for use in apparel industry. Concentration on Adobe Illustrator and Adobe Photoshop. Students who repeat this course will improve their skills through further instruction and practice.

FASH 30 — Fashion Design and Product Development I **3 Units**
54 hours of lecture. Degree Appropriate

Advisory: FASH 15 and FASH 60
Overview of the global environment for product development for fashion. Applies the concepts and methods by which retailers create special store-branded merchandise for targeted customer segments. Students will develop financial and design goals, create product concept and line-boards, and evaluate the aesthetic and commercial results.

FASH 31 — Fashion Design and Product Development II **3 Units**
36 hours of lecture. Degree Appropriate
54 hours of lab.

Prerequisite: FASH 20, FASH 21 or 22, AND FASH 30
Intermediate fashion students will create and maintain a personal design sketchbook and work with the basic categories of swim wear, active wear, children's and junior clothing. Industrial techniques of drawing production flats and design room sketches are taught in addition to the full fashion figure. Projects will include creation of lines including production flats, textile selection, cost sheets, full-color illustrations and full scale patterns.

FASH 32 — Fashion Design and Product Development III **3 Units**
36 hours of lecture. Degree Appropriate
54 hours of lab.

Prerequisite: FASH 31
Advanced fashion design and product development emphasizing, in portfolio format, a minimum of three lines with production flats, scale patterns, pattern charts, cost sheets and sample garments. A design sketchbook will be maintained. Includes resume preparation and job search appropriate for the fashion design industry.

FASH 62 — Retail Store Management and Merchandising **3 Units**
54 hours of lecture. Degree Appropriate, CSU

Principles and practices used in the management and merchandising of retail stores. Includes all aspects of the critical buying function, merchandising, promotional techniques, site selection, layout, staffing, market positioning and customer service. Students may not receive credit for both FASH 62 and BUSS 50.

FASH 63 — Advertising and Promotion **3 Units**
54 hours of lecture. Degree Appropriate, CSU

Characteristics and role of advertising and promotion in business are explored. Emphasis is placed on promotional mix, trend and forecast research, and developing a comprehensive multimedia promotion plan including advertising layout and copy. Students may not receive credit for both FASH 63 and BUSS 33.

FASH 66 — Visual Merchandising Display **3 Units**
36 hours of lecture. Degree Appropriate, CSU
54 hours of lab.

Analysis of visual merchandising applied to interior and exterior displays and floor merchandising within the fashion industry. Includes psychology of store layout, current methods of visual merchandising, and use of mannequins, pinning, and flying.

FASH 90 — Field Studies **1 Unit**
(May be taken two times for credit.) Degree Appropriate
18 hours of lecture.

Pre-trip lectures on the development of the ready-to-wear industry including background information on specific designer studios, factories, and retail stores to be visited, plus travel information for the trip. Students who repeat this course will improve skills through further instruction and practice.

FASH 91 — Field Studies – New York **2 Units**
(May be taken two times for credit.) Degree Appropriate
18 hours of lecture.

54 hours of lab.
Corequisite: FASH 90 (May have been taken previously)
Fashion industry travel study in New York City with daily scheduled lectures and field studies of the diverse fashion industries to include major designers, fashion trend services, retailers, manufacturers, costume/textile exhibits and archives, and museums. Students who repeat this course will improve skills through further instruction and practice.

FASH 92 — Field Studies – Fashion Capitals **3 Units**
 (May be taken two times for credit.) Degree Appropriate
 36 hours of lecture.
 54 hours of lab.
Corequisite: FASH 90 (May have been taken previously)
 Fashion industry travel study to fashion capitals with daily scheduled lectures and field studies of the diverse international industry to include designers, fashion trend services, retailers, manufacturers, textile mills, costume textile exhibits and archives, and museums. Students who repeat this course will improve skills through further instruction and practice.

FIRE TECHNOLOGY

FIRE 1 — Fire Protection Organization **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
 Career options and opportunities in fire protection and related fields; history of fire protection, fire loss analysis, public, quasi-public and private fire protection services; specific fire protection functions; fire chemistry and physics.

FIRE 2 — Fire Prevention Technology **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
 Introduction and history of fire prevention, including codes, ID and correction of hazards, investigation, and safety education.

FIRE 3 — Fire Protection Equipment and Systems **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
Advisory: FIRE 1
 The course includes a study of portable fire extinguishing equipment, sprinkler systems, protection systems for special hazards, fire alarm and detection systems.

FIRE 4 — Building Construction for Fire Protection **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
Advisory: FIRE 1
 Theory and practices of fire protection, including fire protection laws, water systems and public fire protection systems; fire protection in buildings and open areas.

FIRE 5 — Fire Behavior and Combustion **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
Advisory: FIRE 1
 Theory of how and why fires start, spread and are controlled; in depth study of fire chemistry and physics, fire characteristics of materials, extinguishing of materials, extinguishing agents and fire control techniques.

FIRE 6 — Hazardous Materials/ICS **3 Units**
 54 hours of lecture. Degree Appropriate
 Hazardous chemicals, their physical properties, use in industry, characteristics when involved in spills, fire, and accidents. Information regarding emergency procedures, legal requirements, compliance to regulations, health effects and treatment, fire department protocols and responsibilities.

FIRE 7 — Fire Fighting Tactics and Strategy **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
Advisory: FIRE 1 or equivalent taken prior
 Principles of fire control through utilization of manpower, equipment and extinguishing agents, fire command and control procedures, utilization on types of building construction in fire control, review of fire chemistry, pre-fireplanning, organized approach to decision making on the fire scene, basic fire fighting tactics and strategy.

FIRE 8 — Fire Company Organization and Management **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
Advisory: FIRE 1 or equivalent taken prior
 Fire department and company organization, the company officer, personnel administration and communication as it impacts fire equipment, maintenance, training, fire prevention, fire fighting, company fire fighting capabilities, records and reports.

FIRE 9 — Fire Hydraulics **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
Advisory: FIRE 1 or equivalent taken prior and eligibility for MATH 51
 Review of basic mathematics, hydraulic laws and formulas as applied to fire service, application of formulas and mental calculation to hydraulic problems, water supply problems, underwriter requirements for pumps.

FIRE 10 — Arson and Fire Investigation **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
Advisory: FIRE 1 or equivalent taken prior
 Introduction to cause, origin, arson, incendiary, related laws and types of incendiary fires. Methods of determining fire cause, recognizing and preserving evidence, interviewing and detaining witnesses, procedures for handling juveniles, court procedure and testimony.

FIRE 11 — Fire Apparatus and Equipment **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
Advisory: FIRE 1 or equivalent taken prior
 Mechanized equipment operated by the fire service personnel and regulations pertaining to their use. Includes driving laws, driving techniques, construction and operation of pumping engines, ladder trucks, aerial platforms, specialized equipment, and apparatus maintenance.

FIRE 12 — Wildland Fire Control **4 Units**
 80 hours of lecture. Degree Appropriate, CSU
Advisory: Eligibility for ENGL 68
 Addresses wildland fire behavior, safety considerations, strategy, tactics, and operational differences within the wildland urban interface.

FIRE 20 — Fire Instructor 1A **2 Units**
 40 hours of lecture. Degree Appropriate
Advisory: FIRE 86 or equivalent taken prior
 State Board of Fire Service accredited course in fire service instructional techniques, including lesson plan development, performance goals, evaluation techniques, instructor performance goals, instructor responsibilities, the learning process, instructional aids and training records. This course applies to California Fire Service Training and Education System certifications.

FIRE 21 — Fire Instructor 1B **2 Units**
 40 hours of lecture. Degree Appropriate
Advisory: FIRE 20 or equivalent taken prior
 State Board of Fire Service accredited course in fire service instructional techniques, including methods of instruction, use of audio-visual equipment, employment of instructional aids, test construction, teaching demonstrations and reducing failure rates. This course applies to California Fire Service Training and Educational Systems certifications.

FIRE 22 — Fire Instructor 2A **2 Units**
 40 hours of lecture. Degree Appropriate
Advisory: FIRE 21 or equivalent taken prior
 Level II preparation for fire science instructors training officers with emphasis on techniques of evaluation, test planning, constructing and using manipulative tests, test analysis, critiques, test security and records. A State Board of Fire Science accredited course.

FIRE 23 — Fire Instructor 2B **2 Units**
 40 hours of lecture. Degree Appropriate
Advisory: FIRE 21 or equivalent taken prior
 Organizational communication skills for training officers with emphasis on leadership, interpersonal relations, developing and conducting staff meetings, assertive and argumentative presentations and encouraging staff participation. A State Board of Fire Science accredited course.

FIRE 24 — Fire Instructor 2C **2 Units**
 40 hours of lecture. Degree Appropriate
Advisory: FIRE 21 or equivalent taken prior
 Preparation for fire personnel instructor/ training officer. Principles of media use in the instruction process, selection of audio-visual and instructional media, employment of basic advanced forms of instructional media, use of computers in the instructional process, individual instructional programs. A State Board of Fire Science accredited course.

FIRE 30 — Fire Management 1 **2 Units**
 40 hours of lecture. Degree Appropriate
Advisory: FIRE 8 or FIRE 86 or equivalent taken prior
 State Board of Fire Services accredited course in fire management designed to develop an understanding of the changing role of the fire officer, building leadership skills, appraising and developing employee performance and communication skills.

Course Descriptions

<p>FIRE 31 — Fire Management 2A – Organizational Development and Human Relations 2 Units 40 hours of lecture. Degree Appropriate <i>Advisory: FIRE 30 taken prior</i> Level II California Fire Service Training and Education System chief officers certified course in basic principles of organization and development of general management skills. Includes problem solving, cultural diversity, motivation, performance management and organizational politics.</p>	<p>FIRE 42 — Fire Prevention 1C 2 Units 40 hours of lecture. Degree Appropriate <i>Advisory: FIRE 40 and FIRE 41 or equivalent taken prior</i> Third Level I California Fire Service Training and Education System certified course in fire prevention. Includes physical properties of flammable and combustible liquids, storage practices, transportation and controlling of flammable and liquified gases.</p>	<p>FIRE 52 — Fire Command 2A – Command Tactics at Major Fires 2 Units 40 hours of lecture. Non-Degree Credit <i>Advisory: FIRE 51</i> For fire officers managing fires using the Incident Command System (ICS) when commanding multiple alarms. Includes unified command structures and areas of geographical divisions.</p>
<p>FIRE 32 — Fire Management 2B – Fire Service Financial Management 2 Units 40 hours of lecture. Degree Appropriate <i>Advisory: FIRE 30</i> Budget preparation and financial management of personnel, stations, fire equipment, and other fire department resources.</p>	<p>FIRE 43 — Fire Prevention 2A 2 Units 40 hours of lecture. Degree Appropriate <i>Advisory: FIRE 40, FIRE 41, FIRE 42 or equivalent taken prior</i> First Level II California Fire Service Training and Education System certified course in fire prevention for career fire personnel. Includes standards, laws and regulations pertaining to construction requirements for buildings, sprinklers and alarm systems, installation procedures and requirements associated with fire protection systems.</p>	<p>FIRE 53 — Fire Command 2B – Management of Major Hazardous Material Incidents 2 Units 40 hours of lecture. Degree Appropriate <i>Advisory: FIRE 51</i> For fire officers responsible for hazardous material responses. Includes community planning, research, legislation enforcement and litigation from hazardous material responses.</p>
<p>FIRE 33 — Fire Management 2D – Master Planning in the Fire Service 2 Units 40 hours of lecture. Degree Appropriate <i>Advisory: FIRE 31</i> For fire personnel responsible for master planning fire protection needs for a city, county or state fire agency. Covers program and master planning, forecasting, systems, policy analysis and design.</p>	<p>FIRE 44 — Fire Prevention 2B 2 Units 40 hours of lecture. Degree Appropriate <i>Advisory: FIRE 40, FIRE 41, FIRE 42, or equivalent taken prior</i> Second Level II California Fire Service Training and Education Systems certified course in fire prevention for fire personnel. Includes interpreting the fire and building codes, California codes of regulation pertaining to fire and life safety standards.</p>	<p>FIRE 54 — Fire Command 2C – High-Rise Fire Tactics 2 Units 40 hours of lecture. Degree Appropriate <i>Advisory: FIRE 51</i> A system-based approach applied to high-rise fires. Includes pre-fire planning, building inventory, problem identification, ventilation methods, water supply, elevators, life safety and strategy and tactic operations.</p>
<p>FIRE 34 — Fire Management 2E – Personnel and Labor 2 Units 40 hours of lecture. Degree Appropriate <i>Advisory: FIRE 31</i> For fire supervisors and managers responsible for supervision, implementing department policies, diversity, labor relations, human resources and legal issues.</p>	<p>FIRE 45 — Fire Prevention 2C 2 Units 40 hours of lecture. Degree Appropriate <i>Advisory: FIRE 40, FIRE 41, FIRE 42, or equivalent taken prior</i> Third Level II California Fire Service Training and Education System certified course in fire prevention for fire personnel. Includes standards required for industrial ovens, cleaning and finishing processes, welding, refrigeration systems, medical gasses and fireworks.</p>	<p>FIRE 55 — Fire Command 2D – Disaster Planning and Management 2 Units 40 hours of lecture. Degree Appropriate <i>Advisory: FIRE 51 taken prior</i> Level II California Fire Service Training and Education System chief officer certified course for supervisory and managerial fire service personnel responsible for emergency disaster planning and implementing the Standard Emergency Management System, emphasizing the integrated team approach to managing emergencies.</p>
<p>FIRE 40 — Fire Prevention 1A 2 Units 40 hours of lecture. Degree Appropriate <i>Advisory: FIRE 5, FIRE 86, or equivalent taken prior</i> First Level I course qualifies the student as a Certified Prevention Officer through the California Fire Service Training and Education System. Includes responsibilities of fire prevention personnel, procedures for correcting hazards, origin and history of fire prevention efforts in the U.S., basic fire prevention functions, occupancy identification, building preparation, record management, exit requirements, electrical hazards, plan review and safety education.</p>	<p>FIRE 50 — Fire Command 1A 2 Units 40 hours of lecture. Degree Appropriate <i>Advisory: FIRE 7, FIRE 86 taken prior</i> Level I California Fire Service Training and Education System certified course designed for first-in incident commander and company officers. Includes command principles for company officers, initial decision and action processes at a working fire, fire behavior, fireground resources, operations and management.</p>	<p>FIRE 56 — Fire Command 2E – Wildland Fire Control 2 Units 40 hours of lecture. Degree Appropriate <i>Advisory: FIRE 51</i> For supervisory and managerial fire service personnel responsible for management and coordination of an extended wildland fire incident.</p>
<p>FIRE 41 — Fire Prevention 1B 2 Units 40 hours of lecture. Degree Appropriate <i>Advisory: FIRE 40 or equivalent taken prior</i> Second Level I California Fire Service Training and Education System certified course in fire prevention. Includes relationship of life safety codes and building construction principles, exiting requirements, fire protection systems, basic electrical theory, fire drills and training, fire inspection reports, plans specifications processing, and fire prevention complaints.</p>	<p>FIRE 51 — Fire Command 1B 2 Units 40 hours of lecture. Degree Appropriate <i>Advisory: FIRE 50 or equivalent taken prior</i> Level I California Fire Service Training and Education System certified course designed for first-in incident commander and company officers. Provides incident management information on tactics, strategies, and scene management for multi-casualty incidents, hazardous materials incidents, and wildland fires.</p>	<p>FIRE 60 — Fire Investigation 1A 2 Units 40 hours of lecture. Degree Appropriate <i>Advisory: FIRE 10, FIRE 86, or equivalent taken prior</i> Level I California Fire Service Training and Education System certified course designed for firefighters, fire investigators and law enforcement officers assigned to fire investigation. Includes a basic overview of fire scene investigation with the focus on fire scene indicators and determine the fire's cause and origin.</p>

<p>FIRE 61 — Fire Investigation 1B 2 Units 40 hours of lecture. Degree Appropriate <i>Advisory: FIRE 60 or equivalent taken prior</i> Level I California Fire Service Training and Education System certified course designed for firefighters and investigation personnel. Includes juvenile fire setter, report writing, evidence preservation and collection, interview techniques, motives and fatalities.</p>
<p>FIRE 62 — Fire Investigation 2A – Fire Cause Determination 1 2 Units 40 hours of lecture. Non-Degree Credit <i>Advisory: FIRE 60, FIRE 61</i> Designed for in-service fire personnel completing their Fire Investigation II Certification and provides the information to successfully investigate, apprehend, and convict arsonists.</p>
<p>FIRE 63 — Fire Investigation 2B – Fire Cause Determination 2 2 Units 40 hours of lecture. Non-Degree Credit <i>Advisory: FIRE 61 and FIRE 62</i> Designed for in-service fire personnel completing their Fire Investigation II Certification that builds on the Fire Investigation 1 course (FIRE 62).</p>
<p>FIRE 68 — Title 19/24 Workshop 1 Unit (May be taken for Credit/No Credit only.) Degree Appropriate 24 hours of lecture. <i>Advisory: FIRE 40 or equivalent taken prior</i> California Fire Service Training and Education System certified accredited course in fire prevention for fire personnel. Includes standards required for understanding, interpreting and applying State Fire Marshall's Regulation requirements based on type of occupancy, construction, fire extinguishing systems, exits, alarm systems and institutional occupancies.</p>
<p>FIRE 85 — Special Issues in Fire Technology 2 Units (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 36 hours of lecture. Develops knowledge and techniques to enable fire service employees to understand and handle the special problems that arise in various phases of the fire science. Special emphasis will be placed on a particular problem as the need arises. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>FIRE 86 — Basic Fire Academy 12 Units 138 hours of lecture. Degree Appropriate 382 hours of lab. <i>Prerequisite: FIRE 1 through FIRE 6 or equivalent, PE 50 or equivalent, EMT certified, and either PE-F 50 or PE-F-51 or PE-F 52 (or equivalent)</i> <i>Coresquisite: PE-F 53</i></p>

<p>Instruction in the proper use of standard fire department apparatus and equipment, salvage covers and fire extinguishment techniques, etc., in accordance with the State Board of Fire Services. Prepares students to meet manipulative skills standards established by the local fire agencies, associations and unions.</p>
<p>FIRE 88 — Explorer Fire Academy 2 Units Spring Semester Non-Degree Credit (May be taken for Credit/No Credit only.) 22 hours of lecture. 48 hours of lab. Specialized Fire Academy designed for fire explorers. Instruction in the proper use of fire and rescue apparatus and equipment and fire extinguishing techniques in accordance with the State of California Fire Marshall's Office.</p>
<p>FIRE 89 — Firefighter Exam Preparation .5 Unit (May be taken four times for credit.) Non-Degree Credit (May be taken for Credit/No Credit only.) 8 hours of lecture. Prepares applicants for entry-level firefighter positions for the CWH Research Inc. Firefighter Exam, offered in conjunction with the Los Angeles Area Fire Chief's Association. Two four-hour sessions including administration of written examination.</p>
<p>FIRE 91 — Fire Academy Ladders 1 Unit Summer Semester Non-Degree Credit (May be taken for Credit/No Credit only.) 8 hours of lecture. 32 hours of lab. Intensive training in ladder manipulation to prepare students for Fire Academy and physical fitness tests given by the fire departments.</p>
<p>FIRE 96 — Work Experience Fire Science 2 Units (May be taken four times for credit.) Degree Appropriate (May be taken for Credit/No Credit only.) 150 hours of activity. <i>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog</i> Work experience in fire service at an approved work site which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. This course is available to students achieving a minimum of 12 units in fire service. Students who repeat this course will improve skills through further instruction and practice.</p>

FRENCH	
<p>FRCH 1 — Elementary French 4 Units (CAN FREN 2) Degree Appropriate, CSU, UC FRCH 1+2 = CAN FREN SEQ A 72 hours of lecture. Intended for students without previous exposure to French. Begins to develop the ability to converse, read and write in French. Emphasis is on oral proficiency. Includes the study of principles of language learning, pronunciation, basic vocabulary and grammatical structures. Extensive exposure to the cultures of French-speaking countries.</p>	
<p>FRCH 2 — Continuing Elementary French 4 Units (CAN FREN 4) Degree Appropriate, CSU, UC FRCH 1+2 = CAN FREN SEQ A 72 hours of lecture. <i>Prerequisite: FRCH 1 or two years of high school French or equivalent</i> 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.</p>	
<p>FRCH 3 — Intermediate French 4 Units (CAN FREN 8) Degree Appropriate, CSU, UC FRCH 3+4 = CAN FREN SEQ B (May be taken for option of letter grade or Credit/No Credit.) 72 hours of lecture. <i>Prerequisite: FRCH 2 or equivalent</i> 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.</p>	
<p>FRCH 4 — Continuing Intermediate French 4 Units (CAN FREN10) Degree Appropriate, CSU, UC FRCH 3+4 = CAN FREN SEQ B (May be taken for option of letter grade or Credit/No Credit.) 72 hours of lecture. <i>Prerequisite: FRCH 3 or equivalent</i> Continued development of competencies with the goal of attaining intermediate high-level proficiency in French. Increasing emphasis on reading and writing. Extensive exposure to cultural elements such as art, music, film, and history from France and other French-speaking countries.</p>	

Course Descriptions

FRCH 5 — Advanced French	4 Units
(May be taken for option of letter grade or Credit/No Credit.) 72 hours of lecture. <i>Prerequisite:</i> FRCH 4 or equivalent Provides further insight into the cultures of France and other French-speaking countries to reach an advanced level of proficiency in the language. Includes analysis of short literary works from diverse cultures, and group discussions about contemporary topics found in films and newspaper articles.	Degree Appropriate, CSU, UC
FRCH 6 — Continuing Advanced French	4 Units
(May be taken for option of letter grade or Credit/No Credit.) 72 hours of lecture. <i>Prerequisite:</i> FRCH 5 or equivalent Extensive reading and analysis of short literary works from diverse French and French-speaking cultures. Discussion of films, newspaper articles and contemporary topics. Develops fluency in French through group discussions, oral presentations, and writing.	Degree Appropriate, CSU, UC
FRCH 35 — French Language Laboratory	.5 Unit
(May be taken four times for credit.) (May be taken for Credit/No Credit only.) 27 hours of lab. An independent study laboratory course for students who wish to improve their skills in French; may supplement any other French course. Requires 24 hours in the language laboratory to receive credit. Students who repeat this course will improve skills through further practice and drill.	Degree Appropriate, CSU
FRCH 52 — Conversational French 1	3 Units
(May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Prerequisite:</i> FRCH 1 or equivalent Development of intermediate French conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to French culture. Grammar is presented in context.	Degree Appropriate
FRCH 53 — Intermediate Conversational French	3 Units
(May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Prerequisite:</i> FRCH 2 or FRCH 52 or equivalent Develops intermediate level fluency through expansion of vocabulary and practical use of language.	Degree Appropriate, CSU, UC
FRCH 54 — Continuing Intermediate Conversational French	3 Units
(May be taken two times for credit.) (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Prerequisite:</i> FRCH 3 or FRCH 53 or equivalent	Degree Appropriate, CSU, UC

Develops intermediate-high fluency through further expansion of vocabulary and practical use of language. Students who repeat this course will improve skills through further instruction and practice.

FRCH 60 — French Culture Through Cinema **3 Units**

(May be taken for option of letter grade or Credit/No Credit.)
54 hours of lecture.
French culture and history as presented in classic and recent French films. Analysis of characters and political, social and artistic movements in France and other Francophone countries as reflected in the works of French-speaking film directors and writers. Lectures and class discussions conducted in English. All films with English subtitles.

GEOGRAPHY
GEOG 1 — Elements of Physical Geography **3 Units**

(CAN GEOG 2) Degree Appropriate, CSU, UC
54 hours of lecture.

Prerequisite: Eligibility for ENGL 68

Study of the natural processes that interact to create the Earth's varying physical environments with emphasis on the inter-relationships of natural processes and systems. General atmospheric circulation, Earth-sun relationships, oceanic circulation, water and energy budgets, plate tectonics, and the shaping of the physical landscape.

GEOG 1H — Elements of Physical Geography – Honors **3 Units**

54 hours of lecture. Degree Appropriate, CSU, UC

Prerequisite: Acceptance into the Honors Program

Study of the natural processes that interact to create the Earth's varying physical environments with emphasis on the inter-relationships of natural processes and systems. General atmospheric circulation, Earth-sun relationships, oceanic circulation, water and energy budgets, plate tectonics, and the shaping of the physical landscape. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 1 and GEOG 1H.

GEOG 1L — Physical Geography Laboratory **1 Unit**

54 hours of lab. Degree Appropriate, CSU, UC

Corequisite: GEOG 1 or GEOG 1H (May have been taken previously)

Observations, experiments and demonstrations in a laboratory setting to explore natural earth processes and systems.

GEOG 1LH — Physical Geography Laboratory – Honors **1 Unit**

54 hours of lab. Degree Appropriate, CSU, UC

Prerequisite: Acceptance into the Honors Program

Corequisite: GEOG 1 or GEOG 1H (May have been taken previously)

Observations, experiments and demonstrations in a laboratory setting to explore natural earth processes and systems. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 1L and GEOG 1LH.

GEOG 2 — Human Geography **3 Units**

(CAN GEOG 4) Degree Appropriate, CSU, UC
54 hours of lecture.

Prerequisite: Eligibility for ENGL 68

Introduction to human geography with emphasis on critical areas of inquiry and research. Focus on the interconnections of place and process in several sites around the globe; comprehension of important terms and concepts; and basic literacy in the geography of place names and in world regional understanding.

GEOG 2H — Human Geography – Honors **3 Units**

54 hours of lecture. Degree Appropriate, CSU, UC

Prerequisite: Acceptance into the Honors Program

Introduction to human geography with emphasis on critical areas of inquiry and research. Focus on the interconnections of place and process in several sites around the globe; comprehension of important terms and concepts; and basic literacy in the geography of place names and in world regional understanding. An honors course designed to provide an enriched experience. Students may not receive credit for both GEOG 2 and GEOG 2H.

GEOG 3 — Map Reading and Interpretation **3 Units**

54 hours of lecture. Degree Appropriate, CSU

Provides basic map reading skills with an emphasis on map projections, earth grid systems, principles of map reading, interpretation and use of an atlas. Introduction to skills needed to use and appreciate maps as a form of communication and as a research tool.

GEOG 5 — World Regional Geography **3 Units**

54 hours of lecture. Degree Appropriate, CSU, UC

Advisory: Eligibility for ENGL 68

Developmental study of the world's regions, addressing the major countries in terms of population, resources, economic development, physical environment, and geographic problems.

GEOG 8 — The Urban World **3 Units**

(May be taken for option of letter grade or Credit/No Credit.)
54 hours of lecture. Degree Appropriate, CSU, UC

The geographical analysis of past and current patterns of world urbanization. Emphasis will be placed on city origins, growth, development, and current problems.

GEOG 10 — Introduction to Geographic Information Systems **3 Units**

54 hours of lecture. Degree Appropriate, CSU, UC

Advisory: Eligibility for ENGL 68

Hands-on training in the principles, theory and operations of geographic information systems (GIS), including geospatial data models, analytical functions, data quality, map design and visual communication, and social and environmental applications of GIS.

<p>GEOG 11 — Intermediate GIS 3 Units Spring Semester Degree Appropriate 54 hours of lecture. <i>Prerequisite: GEOG 10</i> Surveys GIS fundamentals including hands on experience using hardware/software. Emphasizes vector-based data using ArcGIS and raster-based data using the software extensions.</p>	<p>This course traces the sequence of geological events of a developing earth as traced from a primordial beginning to the changes that are occurring now. The interrelationship of the biological and physical processes that are shaping our planet and particularly our evolving and changing continent. Field investigations are required.</p>	<p>GEOL 8L — Earth Science Laboratory 1 Unit 54 hours of lab. Degree Appropriate, CSU, UC <i>Corequisite: GEOL 8 or GEOL 8H (May have been taken previously)</i> 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.</p>
<p>GEOG 30 — Geography of California 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC Thematic approach to issues, processes and topics relevant to the study of California. Includes an examination of the physical processes that shape the landscapes of California, the interaction of humans with these physical processes (particularly the importance of water), and the cultural and social landscapes that have evolved as a result of this human-environment interface.</p>	<p>GEOL 3 — Paleontology, Life of the Past 4 Units Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. 54 hours of lab. An introduction to paleontology including the history of paleontology, methods in paleontology, processes of evolution and the floral and faunal succession through geologic time.</p>	<p>GEOL 9 — Environmental Geology 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC For non-science majors. Relevant aspects of the geological environment and the problems caused by modern humans as they use the earth and its resources. Geologic hazards, including earthquakes, volcanoes, landslides, floods, subsidence. Emphasis on geological viewpoints concerning waste disposal, pollution, geothermal energy, fossil fuels, and mining. Geologic practices related to sound land management, conservation of resources, and protection of the environment. Field trips included.</p>
<p>GEOG 99 — Special Projects in Geography 2 Units (May be taken four times for credit.) Degree Appropriate, CSU 36 hours of lecture. Offers selected students recognition for their academic interest and ability and the opportunity to explore their disciplines in depth. Various departments sometimes offer Special Projects courses. The content of each and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure enhanced proficiencies.</p>	<p>GEOL 6 — Earthquakes 1 Unit Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 18 hours of lecture. Discussions of seismic hazards in relation to life and property. Includes the study of seismic safety legislation, socio-economic impacts and prediction of earthquakes.</p>	<p>GEOL 10 — Natural Disasters 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC 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 responding to natural disasters. Field trips included.</p>
GEOLOGY	<p>GEOL 7 — Geology of California 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC A survey course in the geological development of the State of California. Evolution of the state's natural provinces and their geologic development as it influences and impacts the adjacent areas. Topics include state resources, volcanic activity, coastline development, tectonic development, earthquakes, and geologic principles. Field trips may be required.</p>	<p>GEOL 12A — Natural History of California 3 Units Fall Semester Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. Field study of the natural history of the Sierra Nevada and adjacent regions. One 3 day and one 4 day weekend field trip will be required. Students may not receive credit for both BIOL 12A and GEOL 12A.</p>
<p>GEOL 1 — Physical Geology 4 Units (CAN GEOL 2) Degree Appropriate, CSU, UC 54 hours of lecture. 54 hours of lab. <i>Prerequisite: Eligibility for MATH 51</i> This beginning course in geology stresses the beneficial and destructive forces of nature and their causes. It includes a study of the development of landscapes, formation of soils, origin of minerals and rocks, geologic work of ground water, the phenomena of earthquake, volcanism, metamorphism, deformation of rocks and other basic concepts of geology important to man's progress and welfare. Field trips required. This is a first course in geology for earth science and geology majors.</p>	<p>GEOL 8 — Earth Science 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC A survey course that introduces fundamentals of geology, oceanography, meteorology, and astronomy. The companion Earth Science laboratory (GEOL 8L) is recommended for students needing a lab to transfer to a 4-year college/university are required.</p>	<p>GEOL 12B — Natural History of California 3 Units Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. Field study of Peninsular Ranges, Transverse Ranges, Mojave and Colorado Deserts of southern California. Laboratory work is done during one 3-day and one 4-day weekend field trip. Students may not receive credit for both BIOL 12B and GEOL 12B.</p>
<p>GEOL 2 — Historical Geology 4 Units (CAN GEOL 4) Degree Appropriate, CSU, UC Spring Semester 54 hours of lecture. 54 hours of lab. <i>Prerequisite: GEOL 1 or equivalent</i></p>	<p>GEOL 8H — Earth Science – Honors 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: Acceptance into the Honors Program</i> An honors course designed to provide an enriched experience. Introduces fundamentals of geology, oceanography, meteorology, and astronomy. The companion Earth Science laboratory (GEOL 8L) is recommended for students needing to a 4-year college/university. Field trips are required. Students may not receive credit for both GEOL 8 and GEOL 8H.</p>	<p>GEOL 13 — Evolution of the Earth 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC Origin and evolution of the atmosphere, oceans and continents. Special concentration on the developing landforms through the study of plate tectonics.</p>

Course Descriptions

GEOL 14 — Field Geology, Sierra Nevada **3 Units**
 Degree Appropriate, CSU
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of lecture.
 54 hours of lab.
 Field studies of the Sierra Nevada geologic provinces and the surrounding areas.

GEOL 15 — Field Geology, Mojave Desert **3 Units**
 Degree Appropriate, CSU
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of lecture.
 54 hours of lab.
 Field studies of the geology of the Mojave Desert and surrounding areas.

GEOL 16 — Field Geology, Coast Ranges **3 Units**
 Degree Appropriate, CSU
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of lecture.
 54 hours of lab.
 Field studies of the geology of the Coast Ranges and the San Andreas Fault System.

GEOL 17 — Field Geology, Death Valley **3 Units**
 Degree Appropriate, CSU
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of lecture.
 54 hours of lab.
 Field studies of the geology of Death Valley and the Basin and Range Province.

GEOL 19 — Geology Field Studies **2 Units**
 Degree Appropriate, CSU
 (May be taken for option of letter grade or Credit/No Credit.)
 108 hours of lecture.
 324 hours of lab.
 Geologic field studies of the Southern California landscape to include the Transverse Ranges, Coast Ranges, San Andreas Fault, Great Valley, Sierra Nevada, Owens Valley, and the western Mojave Desert.

GEOL 99 — Special Projects in Geology **2 Units**
 Degree Appropriate, CSU
 36 hours of lecture.
 In order to offer students the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester, and depend on the particular project under consideration. Students must have an instructor's authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature to ensure that proficiencies are enhanced.

GERM 1 — Elementary German **4 Units**
 (CAN GERM 2) Degree Appropriate, CSU, UC
 GERM 1+2 = CAN GERM SEQ A
 72 hours of lecture.
Prerequisite: Eligibility for ENGL 68
 For students with no previous German. Develops the ability to converse, read, and write in German. Emphasis on oral proficiency. Includes the study of essentials of pronunciation, vocabulary, idioms, and grammatical structures along with an introduction to Germanic culture.

GERM 2 — Continuing Elementary German **4 Units**
 (CAN GERM 4) Degree Appropriate, CSU, UC
 GERM 1+2 = CAN GERM SEQ A
 72 hours of lecture.
Prerequisite: GERM 1 or two years of high school German or equivalent
 Further development of conversational reading and writing skills in German with emphasis on communication skills, expansion of vocabulary, and understanding of structure. Further study of Germanic culture.

GERM 3 — Intermediate German **4 Units**
 (CAN GERM 8) Degree Appropriate, CSU, UC
 GERM 3+4 = CAN GERM SEQ B
 (May be taken for option of letter grade or Credit/No Credit.)
 72 hours of lecture.
Prerequisite: GERM 2 or three years of high school German or equivalent
 Further development of communicative proficiency in German and exploration of Germanic culture. Further study and review of grammar and expansion of vocabulary. Increasing emphasis on reading and writing in German.

GERM 35 — German Language Laboratory **.5 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU
 (May be taken for Credit/No Credit only.)
 27 hours of lab.
 An independent study laboratory course for students who wish to improve their skills in German. May supplement any current or previous German course. Requires 24 hours using Language Learning Center resources to receive credit. Students who repeat this course will improve their language skills and expand their knowledge of Germanic cultures.

GERM 52 — Conversational German **3 Units**
 Degree Appropriate
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of lecture.
Prerequisite: One semester of high school or college German or equivalent experience
 Develops intermediate level German conversational skills. Emphasis is on collaborative activities and skits. Exposure to authentic Germanic culture through video. Grammar is presented in context.

GERM 53 — Conversational German **3 Units**
 Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of lecture.
Prerequisite: GERM 2 or three years of high school German or equivalent
 Develops intermediate-high German conversational skills. Emphasis on collaborative activities and skits. Exposure to authentic German and Germanic culture through video. Grammar is presented in context.

GERM 54 — Conversational German **3 Units**
 (May be taken two times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of lecture.
Prerequisite: GERM 4 or three years of high school German or equivalent
 Develops intermediate-high German conversational skills. Emphasis on collaborative activities and skits. Exposure to authentic Germanic culture through video. Grammar is presented in context.

HISTORY

HIST 1 — History of the United States **3 Units**
 54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: Eligibility for ENGL 68
 A survey of the history of the United States from colonial times to the present designed for transfer students who need a one-semester course in United States history to meet general education requirements. (Social Science majors should take History 7-8.) Satisfies the requirement for a course in American history, including the study of American institutions and ideals as required by Title 5 of the California Administrative Code

HIST 3 — History of World Civilization **3 Units**
 HIST 3+4 = CAN HIST SEQ C Degree Appropriate, CSU, UC
 54 hours of lecture.
 The rise and development of civilization from the Stone Age to 1500.

HIST 3H — History of World Civilization – Honors **3 Units**
 HIST 3H+4H = CAN HIST SEQ C Degree Appropriate, CSU, UC
 54 hours of lecture.
Prerequisite: Acceptance into the Honors Program
 The rise and development of civilization from the Stone Age to 1500. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both HIST 3 and HIST 3H.

HIST 4 — History of World Civilization **3 Units**
 HIST 3+4 = CAN HIST SEQ C Degree Appropriate, CSU, UC
 54 hours of lecture.
Prerequisite: Eligibility for ENGL 1A
 The rise and development of civilization from 1500 to the present.

<p>HIST 4H — History of World Civilization – Honors 3 Units HIST 3H+4H = CAN HIST SEQ C Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite: Acceptance into the Honors Program</i> The rise and development of civilization from 1500 to the present. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both HIST 4 and HIST 4H.</p>	<p>Survey of American history from 1865 to the present. Designed for history, social science, or humanities majors, or for transfer students who need a year course in United States history to meet general education requirements. Satisfies the requirement for a course in American history, including the study of American institutions and ideals and the principles of State and local government as required by Title 5 of the California Administrative Code.</p>	<p>HIST 30 — History of the African American 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: Eligibility for ENGL 68</i> In the general framework of the U.S. historical process, surveys the history of African Americans from the African genesis to 1865, including historical processes and their impact on modern U.S. society. A critical analysis will be made of the contributions of African Americans to the historical development of the United States, and the transformations that have occurred as a result. Satisfies the requirement for a course in American institutions and ideals and the Constitution of the United States as required by Title 5 of the California Administrative Code.</p>
<p>HIST 7 — History of the United States 3 Units (CAN HIST 8) Degree Appropriate, CSU, UC HIST 7+8 = CAN HIST SEQ B 54 hours of lecture. <i>Prerequisite: Eligibility for ENGL 1A</i> 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.</p>	<p>HIST 8H — History of the United States – Honors 3 Units (CAN HIST10) Degree Appropriate, CSU, UC HIST 7H+8H = CAN HIST SEQ B 54 hours of lecture. <i>Prerequisite: Acceptance into the Honors Program</i> Survey of American history from 1865 to the present. Designed for history, social science, or humanities majors, or for transfer students who need a year course in United States history to meet general education requirements. Satisfies the requirement for a course in American history, including the study of American institutions and ideals and the principles of State and local government as required by Title 5 of the California Administrative Code. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both HIST 8 and HIST 8H.</p>	<p>HIST 31 — History of the African American 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC In the general framework of the U.S. historical process, surveys the history of African Americans from the Reconstruction period to the present, including historical processes and their impact on modern U.S. society. A critical analysis will be made of the contributions of African Americans to the historical development of the United States, and the transformations that have occurred as a result. Satisfies the requirement for a course in American institutions and ideals and the Constitution of the United States as required by Title 5 of the California Administrative Code.</p>
<p>HIST 7H — History of the United States – Honors 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: Acceptance into the Honors Program</i> 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. An honors course designed to provide an enriched experience. Students may not receive credit for both HIST 7 and HIST 7H.</p>	<p>HIST 10 — History of Asia 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC Survey history of China, Japan, India, South Asia, and Southeast Asia from the pre-historical era to 1600. Topics include: oriental mysticism and religions, art and literature, warfare and political systems, the splendor of the imperial courts and the lives of the peasants.</p>	<p>HIST 35 — History of Africa 3 Units Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. Surveys African civilization with major emphasis placed upon political, social and cultural developments. African history will be traced from prehistoric times through colonialism and the emergence of independent African states in the 20th century. The American relationship with Africa will be considered.</p>
<p>HIST 8 — History of the United States 3 Units (CAN HIST10) Degree Appropriate, CSU, UC HIST 7+8 = CAN HIST SEQ B 54 hours of lecture. <i>Prerequisite: Eligibility for ENGL 1A</i></p>	<p>HIST 11 — History of Asia 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC Survey history of China, Japan, Southeast Asia, India, and South Asia from 1600 to the 20th century. Emphasizes the confrontation between Asia and the Western world. Topics include: economic and political systems, religion and art, the splendor of the courts, peasant life and the civil and international wars.</p>	<p>HIST 36 — Women in American History – Beyond the Stereotypes 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC An introductory course placing women's experience within the context of the major themes of American history, addressing issues and debates related to gender construction and identity. Political, economic, and social currents as well as cross cultural dynamics are critically examined and analyzed as are gender theory and practices in the context of ethnicity, class, and nation. This course satisfies the requirement for a course in American history including the study of American institutions and ideals, as required by Title 5 of the California Administrative Code.</p>
	<p>HIST 16 — The Wild West – A History, 1800-1890 3 Units Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Prerequisite: Eligibility for ENGL 68</i> Surveys the history of the Trans-Mississippi West to acquaint students with the historical significance, events and personalities which make up this period of American history.</p>	<p>HIST 39 — California History 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: Eligibility for ENGL 68</i> The social, intellectual, economic and political development of California from earliest times to the present, against the background of Latin America, the Pacific and the United States.</p>

Course Descriptions

HIST 40 — History of the Mexican American **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: Eligibility for ENGL 68
A survey of United States history from colonial times to the present with a special emphasis on the role of La Raza (Hispanics) in the development of the nation. Satisfies the requirement for a course in American History, including the study of American institutions and ideals as required by Title 5 of the California Administrative Code.

HIST 99 — Special Projects in History **2 Units**
(May be taken four times for credit.) Degree Appropriate, CSU
36 hours of lecture.

To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to a greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.

HISTOTECHNOLOGY

HT 1 — Introduction to Histotechnology **1 Unit**
18 hours of lecture. Degree Appropriate

Advisory: Eligibility for ENGL 68

An overview of the role of histotechnicians in preparation and analysis of tissues samples for diagnostic and research purposes. Introduction to Internet resources, support organizations and periodical references for histotechnicians, as well as regulatory agencies. Students will set up an educational plan and portfolio to be used throughout the remainder of the program.

HT 2 — Scientific Basics for Histologic Technicians **3 Units**
54 hours of lecture. Degree Appropriate

Advisory: Eligibility for ENGL 68

Defines all aspects of general laboratory issues including general laboratory protocols (GLP's), safety, ethics, and terminology relative to the preparation of tissue samples.

HT 10 — Histology **3 Units**
36 hours of lecture. Degree Appropriate
54 hours of lab.

Advisory: ANAT 35

Microscopy, image analysis; cell structure, reproduction and staining. Identification of tissues, organs and special microstructures, and their detailed morphology. Involves distinguishing normal features from pathological conditions.

HT 12 — Beginning Histotechniques **5 Units**
54 hours of lecture. Degree Appropriate

108 hours of lab.

Prerequisite: HT 2

Advisory: MICR 22

Practical applications and skill-building in tissue fixation, processing, embedding, sectioning, hematoxylin-eosin staining, and microorganism staining. Quality control as it relates to routine histological techniques and equipment.

HT 14 — Advanced Histotechniques **4 Units**
54 hours of lecture. Degree Appropriate

54 hours of lab.

Prerequisite: HT 12

Special stains for carbohydrates, amyloid, connective tissues, muscle and nervous tissues, including silver stains. Introduction to immunostains, in situ hybridization and microwaving techniques. Provides the opportunity to gain proficiency in skills acquired in HT 12, Beginning Histotechniques.

HT 16 — Histochemistry/Immunohistochemistry **4 Units**
54 hours of lecture. Degree Appropriate

54 hours of lab.

Prerequisite: HT 12

Fundamentals of enzyme and immunological reactions as they relate to tissue staining.

HT 17 — Work Experience in Histotechnology **1 Unit**
(May be taken four times for credit.) Degree Appropriate

(May be taken for Credit/No Credit only.)

75 hours of lab.

Prerequisite: 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.

HT 18 — Work Experience in Histotechnology **2 Units**
(May be taken four times for credit.) Degree Appropriate

(May be taken for Credit/No Credit only.)

150 hours of lab.

Prerequisite: 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.

HT 19 — Work Experience in Histotechnology **3 Units**
(May be taken four times for credit.) Degree Appropriate

(May be taken for Credit/No Credit only.)

225 hours of lab.

Prerequisite: 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.

HT 20 — Work Experience in Histotechnology **4 Units**
(May be taken four times for credit.) Degree Appropriate

(May be taken for Credit/No Credit only.)

300 hours of lab.

Prerequisite: 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.

HOSPITALITY & RESTAURANT MANAGEMENT

HRM 51 — Introduction to Hospitality **3 Units**
54 hours of lecture. Degree Appropriate, CSU

Prerequisite: Eligibility for ENGL 68

Brief review of historical development; social and economic influences on the current leisure industry structures. Career opportunities at various levels in hotels, restaurants, food service institutions and private clubs/resorts. Education and experience requirements, personal qualifications, job responsibilities, job procurement and future opportunities.

HRM 52 — Food Safety and Sanitation **1.5 Units**
27 hours of lecture. Degree Appropriate, CSU

Prerequisite: Eligibility for ENGL 68

Basic principles of sanitation and safety in the food service industry. Emphasis on the role of management in design, implementation and training to establish an effective Hazard Analysis Critical Control Point (HACCP) system. Students will have the opportunity to earn the National Restaurant Association's ServSafe Certificate upon completion of the course.

<p>HRM 53 — Dining Room Service Management 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Advisory: ENGL 68</i> Skills and knowledge needed for all aspects of dining room service. Exploration of the five different service styles and their relationship to various environments. Table setting styles, buffet set-ups, wine and beverage service, and service as a sales tool are covered. Safety of both customer and staff are discussed.</p>	<p>HRM 60 — Purchasing for the Restaurant Industry 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Corequisite: HRM 51 (May have been taken previously)</i> Basic principles of purchasing for the food service industry. Ordering, receiving, storage, characteristics of products and grade selection for different situations are emphasized. Choosing the best supplier, negotiating the best terms and writing product specifications are covered.</p>	<p>HRM 66 — Hospitality Law 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Advisory: HRM 51</i> Basic principles of contracts, liability and labor as they apply specifically to the hospitality industry. Students will discuss previous cases and decide the fates of fictional litigations as a preventive approach to problems that can occur.</p>
<p>HRM 54 — Basic Cooking Techniques 3 Units 36 hours of lecture. Degree Appropriate, CSU 54 hours of lab. Basic principles of preparing foods for commercial operations; the use and identification of commercial tools and equipment; extending recipes; and choosing the proper food grade; evaluation of food products, and equipment usage.</p>	<p>HRM 61 — Menu Planning 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Advisory: HRM 51</i> Menu development for all facets of the food service industry including retail and contract operations; emphasis on the economics of the menu and the demographics of the area. Analysis of menus with regard to limitations of the facility and staff, pricing and menu design relative to the economy and culture of the target area. Specialty menus such as ethnic, fast food, catering and various contract situations are included.</p>	<p>HRM 70 — Introduction to Lodging 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Advisory: HRM 91</i> Introduction to basics of the lodging industry. Acquaints students with front office operations, accounting, guest service, housekeeping and food service. Includes human resource management and property management. Enrollment in Work Experience in Restaurant/Food Service (RSTR 91, 92, 93 or 94) is needed for articulation to California Polytechnic State University.</p>
<p>HRM 55 — Hospitality Layout and Design 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Corequisite: HRM 51 (May have been taken previously)</i> Evaluation and application of basic principles of design for food service businesses, including traffic flow and footprint layouts. Students will study successful operations layouts and apply principles to design a business, and choose appropriate furnishings and equipment to compliment theme and fit budgets.</p>	<p>HRM 62 — Catering 3 Units 54 hours of lecture. Degree Appropriate, CSU Comprehensive exploration of the catering business with in-depth study of organizing and creating both on-premise and off-premise events. Marketing and working with clients to combine menu with price. Contracting outside vendors, problem solving and avoiding common problems before they occur.</p>	<p>HRM 91 — Work Experience in Restaurant/Hospitality 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 75 hours of lab. <i>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog</i> Provides students with actual on-the-job experience in an approved worksite which is related to classroom-based learning. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed, but assistance is provided by faculty. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>HRM 56 — Management of Hospitality Personnel and Operations 3 Units 54 hours of lecture. Degree Appropriate, CSU Management skills course for students pursuing a career in supervision within the restaurant/hospitality industry. Applications of basic management concepts and techniques necessary to achieve objectives in the management of operations and human resources in restaurant and hospitality businesses including: analysis of hospitality workplace; the manager's responsibilities in training, coaching, and performance appraisal of employees; decision making, leadership, and planning.</p>	<p>HRM 63 — Wines and Spirits 3 Units 54 hours of lecture. Degree Appropriate, CSU In-depth coverage of different varieties and types of wines, classification, and wine production, including sparkling, aromatic and fortified wines. Types of beer and methods of production and distillation and fermentation of spirits. Issues of responsible alcoholic beverage service and consumption, and the laws governing alcohol sales are covered. STUDENTS MUST BE A MINIMUM OF 21 YEARS OLD TO ENROLL IN THIS COURSE.</p>	<p>HRM 92 — Work Experience in Restaurant/Hospitality 2 Units (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 150 hours of lab. <i>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog</i> Provides students with actual on-the-job experience in an approved worksite which is related to classroom-based learning. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed, but assistance is provided by the faculty. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>HRM 57 — Restaurant Cost Control 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Corequisite: HRM 51 (May have been taken previously)</i> Methods for controlling resources within the hospitality operation to maximize profits without compromising products. Discusses controls in front of the house, back of the house, purchasing and receiving.</p>	<p>HRM 64 — Hospitality Financial Accounting I 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Prerequisite: BUSA 11 or MATH 51</i> Introduction to financial accounting specifically for the hospitality business. Emphasis is on tailoring the Uniform System of Accounting to hotels, restaurants, clubs and other food service operations.</p>	<p>HRM 92 — Work Experience in Restaurant/Hospitality 2 Units (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 150 hours of lab. <i>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog</i> Provides students with actual on-the-job experience in an approved worksite which is related to classroom-based learning. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed, but assistance is provided by the faculty. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>HRM 58 — Fast Food Service Management 2 Units 36 hours of lecture. Degree Appropriate, CSU <i>Corequisite: HRM 91</i> Basic principles of managing a fast food operation. Comparison with conventional restaurants in pricing, labor needs and facilities. Developing and marketing a positive company image. Practical and legal aspects of franchising versus single ownership. Sanitation and cost controls.</p>	<p>HRM 65 — Hospitality Financial Accounting II 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Prerequisite: HRM 64</i> Financial accounting specifically for the hospitality industry. Provides accounting practices for balance sheet and income statement data related to hotels, restaurants, clubs and other food service operations. Enables students to distinguish between accounting for sole proprietorships, partnerships and corporations.</p>	

Course Descriptions

HRM 93 — Work Experience in Restaurant/Hospitality **3 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU
 (May be taken for Credit/No Credit only.)
 225 hours of lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
 Provides students with actual on-the-job experience in an approved worksite which is related to classroom-based learning. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed, but assistance is provided by the faculty. Students who repeat this course will improve skills through further instruction and practice.

HRM 94 — Work Experience in Restaurant/Hospitality **4 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU
 (May be taken for Credit/No Credit only.)
 300 hours of lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog
 Provides student with actual on-the-job experience in an approved worksite which is related to classroom-based learning. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed, but assistance is provided by the faculty. Students who repeat this course will improve skills through further instruction and practice.

HUMANITIES

HUMA 1 — The Humanities **3 Units**
 54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: Eligibility for ENGL 68
 An interdisciplinary study of the artistic, musical, literary and philosophical accomplishments and achievements of women and men in western society from the ancient Middle East to the present. Emphasizes creating an awareness of human expression as it occurs in a historical and philosophical context.

INSPECTION & ESTIMATING, BUILDING

INSP 17 — Legal Aspects of Construction **3 Units**
 Degree Appropriate, CSU
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of lecture.
Advisory: INSP 70 taken prior or concurrently or equivalent experience
 Fundamentals of the legal aspects of the construction industry involving homeowner, contractor and builder/developer. Includes codes, licensing, bonds, and lien laws.

INSP 67 — Reading Construction Drawings **3 Units**
 Fall Semester Degree Appropriate
 54 hours of lecture.
 Fundamentals of reading construction drawings as related to architecture, construction, interior design, and related fields.

INSP 70 — Elements of Construction **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
 Fundamentals of construction processes, terminology and procedures. Provides an overview of the construction industry to those who may have an interest in the construction industry and related fields.

INSP 71 — Construction Estimating **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
 Basics of bidding procedures and interrelationship of documents and estimating. Detailed calculation of cost based on the amount of required building materials using actual working drawings, estimating forms, and cost data courses.

INSP 87 — Fundamentals of Construction Inspection **3 Units**
 Fall Semester Degree Appropriate
 54 hours of lecture.
Advisory: Completion of a curriculum in building construction or equivalent experience
 Construction inspection of light frame wood construction and steel structures. Topics include vertical and horizontal loads, stress analysis, framing and structural standards of lumber and steel, metallurgy and welding.

INTERIOR DESIGN

ID 100 — Fundamentals of Interior Design **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
 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)

ID 105 — Interior Design Studio I **2 Units**
 18 hours of lecture. Degree Appropriate, CSU
 54 hours of lab.
Corequisite: ID 100 (May have been taken previously)
 Studio course designed to apply concepts and theories presented in the lecture course, ID 100. It is recommended that this course be taken concurrently with the lecture class. Emphasis is placed on design process in developing solutions for design projects.

ID 120 — Interior Design Careers **2 Units**
 36 hours of lecture. Degree Appropriate, CSU
Advisory: Eligibility for ENGL 68
 A survey of the Interior Design profession, industry, related occupations and work sites. The course will emphasize personal, educational, and professional qualifications required for entry into the Interior Design and related professions.

ID 130 — Applied Color and Design Theory **4 Units**
 54 hours of lecture. Degree Appropriate, CSU
 54 hours of lab.
 Design theory and application. Utilization of tools, materials, and equipment to develop technical skills applicable to interior, architectural and other related fields of design. Exploration of cultural heritage and psychological implication of design.

ID 150 — Interior Materials and Products **4 Units**
 72 hours of lecture. Degree Appropriate, CSU
Advisory: ID 100
 Analysis, application, and evaluation of products and materials used in Interior Design. Includes interior textiles, furnishings and finish materials and products.

ID 150A — Interior Materials and Products **2 Units**
 36 hours of lecture. Degree Appropriate, CSU
Advisory: ID 100
 Analysis, application, and evaluation of products and materials used in interior design. Includes textiles, rugs, carpet, upholstered furniture and window treatments.

ID 150B — Interior Materials and Products **2 Units**
 36 hours of lecture. Degree Appropriate, CSU
Advisory: ID 100
 Analysis, application and evaluation of products and materials used in interior design. Includes resilient flooring, casegoods, and interior architectural finishing materials.

ID 170 — Space Planning **3 Units**
 Spring Semester Degree Appropriate, CSU
 36 hours of lecture.
 54 hours of lab.
Advisory: ID 100 or ID 130 or ARCH 11 or ARCH 21
 The application of programming theory and techniques in residential and commercial space planning. Skills in drafting and presentation techniques are emphasized in the studio.

ID 180 — History of Interior Architecture & Furnishings I **3 Units**
 Fall Semester Degree Appropriate, CSU
 54 hours of lecture.
 The historical relationship between the decorative arts, period furniture and interior architecture is illustrated in this overview of design heritage from antiquity through the 19th Century in France. Emphasis is placed on style development as it relates to social, economic and political influences.

<p>ID 190 — History of Interior Architecture & Furnishings II 3 Units Spring Semester Degree Appropriate, CSU 54 hours of lecture. <i>Advisory: ID 180 and Eligibility for ENGL 68</i> The historical relationship between the decorative arts, period furniture and interior architecture is illustrated in this overview of design heritage. This course begins with Sixteenth Century England and America and analyzes the influences and changes in design to the present. Emphasis is placed on style development as it relates to social, economic and political forces.</p>	<p>ID 240B — Interior Design Internship 1 Unit Spring Semester Degree Appropriate (May be taken two times for credit.) (May be taken for Credit/No Credit only.) 75 hours of lab. <i>Corequisite: ID 240A</i> Supervised internship related to classroom-based learning at a work site related to Interior Design. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Internship placement is not guaranteed, but assistance is provided by Interior Design faculty. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>ID 275 — Interior Design Studio IV – Bath Design 2 Units 18 hours of lecture. Degree Appropriate, CSU 54 hours of lab. Analysis and application of the design process to the space planning, materials and finish choices, code application, and selection of specialized equipment and fixtures unique to the planning of baths. Design solutions for bathrooms will be developed in the studio.</p>
<p>ID 210 — Fundamentals of Lighting 3 Units Spring Semester Degree Appropriate 54 hours of lecture. <i>Advisory: ID 100, ARCH 11, or equivalent experience</i> The fundamentals of lighting, design, theory and application including the history and vocabulary of lighting; how light affects color and vision, incandescent and fluorescent lamps, lighting techniques for interior designers, codes, and energy efficient lighting practices.</p>	<p>ID 240C — Interior Design/Kitchen & Bath Internship 2 Units (May be taken two times for credit.) Degree Appropriate 150 hours of lab. <i>Corequisite: ID 240B (May have been taken previously)</i> Supervised internship related to classroom-based learning at a National Kitchen and Bath member work site. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Internship placement is not guaranteed, but assistance is provided by Interior Design faculty. Students who repeat this course will improve skills through further instruction and practice.</p>	<p style="text-align: center;">ITALIAN</p> <p>ITAL 1 — Elementary Italian 4 Units (CAN ITAL 2) Degree Appropriate, CSU, UC ITAL 1+2 = CAN ITAL SEQ A 72 hours of lecture. Intended for students without previous exposure to Italian. Includes the study of essentials of pronunciation, vocabulary, idioms, and grammatical structures along with an introduction to Italian culture. Begins to develop the ability to converse, read, and write in Italian.</p>
<p>ID 215 — Interior Design Studio II 2 Units Fall Semester Degree Appropriate, CSU 18 hours of lecture. 54 hours of lab. <i>Prerequisite: ID 105</i> <i>Advisory: ID 130 and ID 170</i> Develop, analyze and apply design concepts to interior environments. Universal design, "green" design, space planning, lighting systems, interior components, architectural elements and specification writing will be integrated into research projects emphasizing problem solving approach.</p>	<p>ID 250 — Codes and Specifications for Interior Design 2 Units Fall Semester Degree Appropriate, CSU 36 hours of lecture. <i>Advisory: ID 215</i> Explores local, state, and federal regulations, codes and specifications concerning life-safety issues, ADA, and universal design requirements relative to residential and contract design. Attention is given to performance, health safety, and universal design for estimating and specifying interior materials and products.</p>	<p>ITAL 2 — Continuing Elementary Italian 4 Units (CAN ITAL 4) Degree Appropriate, CSU, UC ITAL 1+2 = CAN ITAL SEQ A 72 hours of lecture. <i>Prerequisite: ITAL 1 or two years of high school Italian or equivalent</i> Further development of conversational, reading and writing skills in Italian with special emphasis on verbs, grammar and extension of vocabulary. Further study of Italian culture.</p>
<p>ID 230 — Business and Professional Practice 3 Units Spring Semester Degree Appropriate 54 hours of lecture. <i>Prerequisite: ID 100</i> <i>Advisory: ID 120</i> The business and professional management of an interior design practice including legal issues, project management and business practices.</p>	<p>ID 260 — Rendering and Rapid Visualization 2 Units 18 hours of lecture. Degree Appropriate, CSU 54 hours of lab. Application of the methods, techniques and tools used in illustrating interior spaces and products with an emphasis on rapid production.</p>	<p>ITAL 3 — Intermediate Italian 4 Units (CAN ITAL 8) Degree Appropriate, CSU, UC ITAL 3+4 = CAN ITAL SEQ B (May be taken for option of letter grade or Credit/No Credit.) 72 hours of lecture. <i>Prerequisite: ITAL 2 or three years of high school Italian or equivalent</i> Further development of Italian language skills and their use as tools in exploring Italian civilization. Further study and review of grammar, exercises in word building, derivation and the extension of the active and recognition vocabularies. Extensive exposure to Italian culture, such as film, music and history.</p>
<p>ID 240A — Interior Design Internship Seminar 1 Unit Spring Semester Degree Appropriate (May be taken two times for credit.) 18 hours of lecture. <i>Corequisite: ID 240B and ID 120 (May have been taken previously)</i> <i>Advisory: ID 170</i> Students share and critique experiences, emphasizing professionalism and problem solving techniques related to internship experience (ID 240B). Students who repeat this course will have additional learning experiences by being placed in a different work site.</p>	<p>ID 265 — Interior Design Studio III – Kitchens 2 Units 18 hours of lecture. Degree Appropriate 54 hours of lab. Analysis and application of the design process to the space planning, materials and finish choices, codes application, and selection of specialized equipment unique to the planning of kitchens. Design solutions for kitchens will be developed in the studio.</p>	<p>ITAL 4 — Continuing Intermediate Italian 4 Units (CAN ITAL10) Degree Appropriate, CSU, UC ITAL 3+4 = CAN ITAL SEQ B (May be taken for option of letter grade or Credit/No Credit.) 72 hours of lecture. <i>Prerequisite: ITAL 3 or four years of high school Italian or equivalent</i> Further practice in speaking and writing of Italian. Collateral reading in Italian. Extensive exposure to cultural elements from Italy such as art, music, film and history.</p>

Course Descriptions

ITAL 5 — Advanced Italian **4 Units**
 Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 72 hours of lecture.
Prerequisite: ITAL 4 or five years of Italian
 Emphasis is placed on increased facility to read and write Italian. Cultural insights are developed through the study of various Italian literary types.

ITAL 6 — Continuing Advanced Italian **4 Units**
 Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 72 hours of lecture.
Prerequisite: ITAL 5 or six years of Italian
 Extensive advanced reading and writing in Italian which further develops cultural insights through the study of various Italian literary types.

ITAL 35 — Italian Language Laboratory **.5 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU
 (May be taken for Credit/No Credit only.)
 27 hours of lab.
Prerequisite: Concurrent or previous enrollment in Italian
 An independent study laboratory course for students who wish to improve their skills in Italian; may supplement any other Italian course. Requires 24 hours in the language laboratory to receive credit. Students who repeat this course will improve skills through further instruction and practice.

ITAL 52 — Conversational Italian **3 Units**
 Degree Appropriate
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of lecture.
Prerequisite: ITAL 1 or equivalent
 Development of intermediate Italian conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Italian culture. Grammar is presented in context.

ITAL 53 — Continuing Conversational Italian **3 Units**
 Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of lecture.
Prerequisite: ITAL 2 or ITAL 52 or equivalent
 Development of intermediate Italian conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Italian culture. Grammar is presented in context.

ITAL 54 — Advanced Conversational Italian **3 Units**
 Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of lecture.
Prerequisite: ITAL 3 or ITAL 53 or equivalent
 Development of advanced Italian conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Italian culture. Grammar is presented in context. Students who repeat this course will improve their skills through further instruction and practice.

ITAL 60 — Italian Culture Through Cinema **3 Units**
 Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of lecture.
 Italian culture through cinema from 1900 through analysis of the aesthetic, literary, artistic and philosophical movements in Italy as reflected in the works of the Italian film makers and writers. Lecture and class discussion to be conducted in English; film presentation with English subtitles.

JAPANESE

JAPN 1 — Elementary Japanese **4 Units**
 (CAN JAPN 2) Degree Appropriate, CSU, UC
 JAPN 1+2 = CAN JAPN SEQ A
 72 hours of lecture.
 Intended for students without previous exposure to Japanese. Begins to develop the ability to converse, read, and write in Japanese. Includes the study of essentials of pronunciation, vocabulary, idioms, and grammatical structures. Introduction to Japanese culture.

JAPN 2 — Continuing Elementary Japanese **4 Units**
 (CAN JAPN 4) Degree Appropriate, CSU, UC
 JAPN 1+2 = CAN JAPN SEQ A
 72 hours of lecture.
Prerequisite: JAPN 1 or two years high school Japanese
 Further development of conversational, reading and writing skills in Japanese with special emphasis on verbs, grammar, and extension of vocabulary. Includes a discussion of Japanese culture.

JAPN 3 — Intermediate Japanese **4 Units**
 (CAN JAPN 8) Degree Appropriate, CSU, UC
 JAPN 3+4 = CAN JAPN SEQ B
 72 hours of lecture.
Prerequisite: JAPN 2 or equivalent
 Continued development of Kanji (50 or more characters) with 60 additional readings. Continued development of writing ability emphasizing development of thought through Kanji, Hiragana and Katakana. Additional development of cultural application of Japanese.

JAPN 4 — Continuing Intermediate Japanese **4 Units**
 (CAN JAPN10) Degree Appropriate, CSU, UC
 JAPN 3+4 = CAN JAPN SEQ B
 72 hours of lecture.
Prerequisite: JAPN 3 or equivalent
 Further practice in listening comprehension, communicative proficiency, writing and reading in Japanese. Advanced study and review of grammar and vocabulary. Readings and discussions of Japanese cultural topics and introduction to Japanese literature.

JAPN 5 — Advanced Japanese **4 Units**
 72 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: JAPN 4 or equivalent
Advisory: Eligibility for ENGL 68
 Advanced Japanese communication skills with emphasis on conversational skills for daily and social settings in Japanese culture. Advanced study of grammar, vocabulary, Kanji characters, listening, speaking, reading, and writing. Extensive exposure to cultural elements from Japan such as art, music, film, and history.

JAPN 35 — Japanese Language Laboratory **.5 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU
 (May be taken for Credit/No Credit only.)
 27 hours of lab.
 An independent study laboratory course for students who wish to improve their skills in Japanese; may supplement any other Japanese course. Requires 24 hours in the language laboratory to receive credit. Students who repeat this course will improve skills through further practice and drill.

JAPN 53 — Conversational Japanese **3 Units**
 Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of lecture.
Prerequisite: JAPN 2 or equivalent
 Development of intermediate Japanese conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Japanese culture. Grammar is presented in context.

JOURNALISM

JOUR 100 — Mass Media and Society **3 Units**
 Formerly JOUR 2 Degree Appropriate, CSU, UC
 (CAN JOUR 4)
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of lecture.
Prerequisite: ENGL 1A
 Survey of the mass media and the interrelationships of media with society, including history, structure, and trends. Additionally, the following topics will be covered as they pertain to the mass media: economics, technology, law and ethics and such social issues as gender and cultural diversity.

<p>JOUR 101 — Beginning News Writing 3 Units <i>Formerly JOUR 1A</i> Degree Appropriate, CSU, UC (CAN JOUR 2) (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Prerequisite: ENGL 1A</i> Evaluating, gathering, and writing news in accepted journalistic style under newsroom conditions. Includes role of the reporter and the legal and ethical issues relating to reporting. The student will have writing and reporting experiences, including personal interviews, speech, meeting and other event coverage, deadline writing, and use of AP style.</p>	<p>JOUR 105 — Editor Training 1 Unit <i>Formerly JOUR 5</i> Degree Appropriate (May be taken four times for credit.) (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lab. <i>Advisory: JOUR 101 or JOUR 1A</i> Stresses leadership skills in a journalistic setting using the student newspaper as a practical laboratory. Designed for students selected to serve as editors or managers of the paper. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>JOUR 109 — Public Relations Internship 3 Units <i>Formerly JOUR 9</i> Degree Appropriate (May be taken two times for credit.) (May be taken for option of letter grade or Credit/No Credit.) 225 hours of lab. <i>Advisory: JOUR 108 or JOUR 8</i> 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.</p>
<p>JOUR 102 — Intermediate News Writing 3 Units <i>Formerly JOUR 20B</i> Degree Appropriate, CSU, UC Spring Semester (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Prerequisite: JOUR 101 or JOUR 1A</i> Development of intermediate news reporting techniques combined with the composition of complex journalistic writing forms.</p>	<p>JOUR 106 — Introduction to Visual Journalism 3 Units <i>Formerly JOUR 6</i> Degree Appropriate, CSU Fall Semester (May be taken two times for credit.) (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. 36 hours of lab. <i>Corequisite: COMP 60 or COMP 62 (May have been taken previously)</i> Photojournalism assignments using still, digital, and video cameras for offset printing (newspaper, magazine, etc.) and digital Web presentations. Basics of photojournalism, digital camera operation, shooting techniques, photo-editing software, cutline writing, video and audio production and editing, and Web homepage design production. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>JOUR 110 — Magazine Writing and Production 3 Units <i>Formerly JOUR 24</i> Degree Appropriate (May be taken two times for credit.) (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. <i>Prerequisite: JOUR 101 or JOUR 1A</i> Production of a student-run magazine in a professional setting. Activities may include fiction and nonfiction writing, editing, ethics, interviewing, photography, art and layout. Overview of the magazine industry and markets explored. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>JOUR 103 — Working on the Newspaper 3 Units <i>Formerly JOUR 3</i> Degree Appropriate (May be taken four times for credit.) (May be taken for option of letter grade or Credit/No Credit.) 18 hours of lecture. 108 hours of lab. <i>Corequisite: JOUR 101 or JOUR 1A (May have been taken previously)</i> Practical experience preparing the college newspaper. Duties may include reporting, story writing, photography, layout and design and copy editing. Students who repeat this class will improve skills through further instruction and practice.</p>	<p>JOUR 107 — Race, Culture, Sex, and Mass Media Images 3 Units <i>Formerly JOUR 7</i> Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Advisory: ENGL 1A</i> Studies the role mass media plays in the social, political, and economic integration of minorities, cultures, women, and gays and lesbians into American society. Examines ways that mass media impacts public attitudes and behaviors.</p>	<p>JOUR 111 — Broadcast News Writing 3 Units <i>Formerly JOUR 25</i> Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Prerequisite: JOUR 1A or JOUR 101</i> Intensive news gathering and writing for radio and television. Newscast planning, story organization, and functions of a broadcast newsroom explored. Emphasis on assignments for both audio and video tape media. Lecture and discussion of issues and responsibilities confronting broadcast journalists including ethics and changing technology.</p>
<p>JOUR 104 — Newspaper Layout & Design 3 Units <i>Formerly JOUR 4</i> Degree Appropriate (May be taken four times for credit.) (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 54 hours of lab. An introduction to newspaper design using desktop publishing techniques. Includes hands-on experience publishing the student newspaper. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>JOUR 108 — Writing for Public Relations 3 Units <i>Formerly JOUR 8</i> Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Prerequisite: JOUR 101 or JOUR 1A</i> An introduction to public relations writing including news releases, fact sheets, feature stories, institutional publications, and newsletters. The relationships between public relations, the mass media, and society will be explored.</p>	<p>JOUR 112 — Work Experience in Journalism 3 Units <i>Formerly JOUR 83</i> Non-Degree Credit (May be taken four times for credit.) (May be taken for Credit/No Credit only.) 225 hours of lab. <i>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog. JOUR 101 or JOUR 1A and ENGL 1A</i> 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.</p>

Course Descriptions

JOUR 113 — Work Experience in Journalism **4 Units**
Formerly JOUR 84 Non-Degree Credit
 (May be taken four times for credit.)
 (May be taken for Credit/No Credit only.)
 300 hours of 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.

LEADERSHIP

LEAD 55 — Exploring Leadership **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
 Designed to introduce students to the fundamental elements of leadership. Explores leadership theories and models, values and beliefs. Develops a personal philosophy of leadership that includes an understanding of self, others and community. Prepares students for leadership roles in college and community settings.

LEARNING ASSISTANCE SERVICES

LERN 48 — Basic Math Skills Review **3 Units**
 (May be taken three times for credit.) Pre-Collegiate
 (May be taken for Credit/No Credit only.)
 54 hours of lecture.
 24 hours of lab.

Essential math fundamentals: multiplication tables, adding, subtracting, multiplying and dividing whole numbers and fractions. Emphasis on math learning strategies such as organization and math anxiety. Successful completers of this course are eligible for LERN 49. Students who repeat this course will improve skills through further instruction and practice.

LERN 49 — Math Skills Review **3 Units**
 (May be taken three times for credit.) Pre-Collegiate
 (May be taken for Credit/No Credit only.)
 54 hours of lecture.
 24 hours of lab.

Prerequisite: LERN 48 or passing score on current placement test
 Improves knowledge of basic math. Includes operations and applied problems in whole numbers, fractions, decimals, percentages, and proportions. Covers math study strategies such as overcoming math anxiety. Students who repeat this course will improve skills through further instruction and practice.

LERN 61 — Skills Development Laboratory **1 Unit**
 (May be taken two times for credit.) Pre-Collegiate
 (May be taken for Credit/No Credit only.)
 54 hours of lab.

Offers individualized material in the following subjects: reading comprehension, reading acceleration, vocabulary, spelling, elementary math, algebra review, English grammar, study techniques (note-taking, test-preparation, test-taking). Students may register for one unit through the first half of the term. One unit requires a total expenditure of 48 hours in class. Students who repeat will achieve further improvement in the skills previously tested or work on the development of other skills.

LERN 62 — Skills Development Laboratory **2 Units**
 (May be taken two times for credit.) Pre-Collegiate
 (May be taken for Credit/No Credit only.)
 108 hours of lab.

Offers individualized material in the following subjects: reading comprehension, reading acceleration, vocabulary, spelling, elementary math, algebra review, English grammar, study techniques (note-taking, test-preparation, test-taking). Students may register for two units through the first half of the term. Two units require a total expenditure of 96 hours in class. Students who repeat will achieve further improvement in the skills previously tested or work on the development of other skills.

LERN 81 — Improving Writing Skills **3 Units**
 (May be taken three times for credit.) Pre-Collegiate
 (May be taken for Credit/No Credit only.)
 54 hours of lecture.
 24 hours of lab.

Offers assistance to students who wish to improve prewriting, writing, editing, and revising skills. Provides instruction in content and structure of sentences, paragraphs, and essay; emphasizes development in writing through the integration of grammar and critical thinking. Students who repeat this course will improve skills through further instruction and practice.

LIBRARY & INSTRUCTIONAL MEDIA

LIBR 1 — Information Resources and Research Methods **3 Units**
 (May be taken two times for credit.) Degree Appropriate, CSU, UC
 54 hours of lecture.

Advisory: Eligibility for ENGL 68
 Research methods that provide lifelong information competency necessary for independent research and critical thinking. Activities include finding, evaluating and documenting information using traditional and electronic resources, including the Internet. Students who repeat this course will improve skills through further instruction and practice.

LIBR 1A — Introduction to Library Research **1 Unit**
 (May be taken two times for credit.) Degree Appropriate, CSU
 (May be taken for option of letter grade or Credit/No Credit.)
 18 hours of lecture.

Advisory: Eligibility for ENGL 68
 Basic research skills for lifelong information competency necessary for independent research and critical thinking. Topics include search strategies, citation, and use of library resources.

LITERATURE

LIT 1 — Early American Literature **3 Units**
 (CAN ENGL14) Degree Appropriate, CSU, UC
 LIT 1+2 = CAN ENGL SEQ C
 54 hours of lecture.

Prerequisite: ENGL 1A
 American literature of the seventeenth eighteenth, and nineteenth centuries. Emphasizes writers who created an American literary identity and shaped America's cultural mythology.

LIT 2 — Modern American Literature **3 Units**
 (CAN ENGL16) Degree Appropriate, CSU, UC
 LIT 1+2 = CAN ENGL SEQ C
 54 hours of lecture.

Prerequisite: ENGL 1A
 Emphasizes characteristic 20th century concerns such as identity and cultural diversity, the American Dream, the effects of industrial and technological development, human isolation and alienation, and examines the impact of these concerns on American literary form and on America's cultural mythology.

LIT 6A — Survey of English Literature **3 Units**
 54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: ENGL 1A

A chronological study of major works from Beowulf and the Anglo-Saxon period to the mid-18th century.

LIT 6B — Survey of English Literature **3 Units**
 Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of lecture.

Prerequisite: ENGL 1A
 A chronological study of major works from the Romantic Era through the Victorian and Modern periods to contemporary texts.

LIT 10 — Survey of Shakespeare **3 Units**
 Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of lecture.

Prerequisite: ENGL 1A
 A survey of Shakespeare's histories, tragedies, comedies, and selected sonnets with their historical and literary context, emphasizing their relevance to contemporary culture and values.

<p>LIT 11A — World Literature 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: ENGL 1A</i> Works and ideas from classical Greece through the Renaissance, emphasizing those works which not only reflect qualities of universal greatness but also the thought and spirit of the ages in which they were written. Emphasizes how art, society, politics, philosophies and general culture are interrelated and reflected in the literature of these different eras.</p>	<p>LIT 33 — Images of Women in Literature 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: ENGL 1A</i> Survey of selected pieces of literature, poetry, short stories and novels which reflect significant ideas and attitudes about women. The Women's Rights Movement will also be explored through an intensive examination of the changing images of women in society as portrayed by both male and female authors. Some contemporary critical material will be used.</p>	<p>LIT 46 — The Bible As Literature: Old Testament 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: ENGL 1A</i> Considers the Bible as a collection of literary texts and applies the principles of literary historical analysis to the Old Testament.</p>
<p>LIT 11B — World Literature 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: ENGL 1A</i> An introductory survey course of European literature (17th to the 20th centuries) that explores the significant and representative literary works of the major authors of these periods. Emphasis on the aesthetic, social and philosophical values and ideas that influenced these authors and the development of 20th century thought.</p>	<p>LIT 34 — Women Writers 3 Units Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Prerequisite: ENGL 1A</i> Examines the contributions of women to a variety of literary genres and offers a historical survey beginning in the 13th century. Includes Emily Dickinson, the Brontes, Mary Shelley, Virginia Woolf, Edith Wharton, Kate Chopin, and others. Emphasis is on appreciation of the literature.</p>	<p>LIT 47 — The Bible As Literature: New Testament 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: ENGL 1A</i> Considers the Bible as a collection of literary texts and applies the principles of literary and historical analysis to selected books of the Old Testament and the New Testament.</p>
MANUFACTURING TECHNOLOGY		
<p>LIT 14 — Introduction to Modern Poetry 3 Units (CAN ENGL20) Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite: ENGL 1A</i> Examines the significant poetry of England and America in the 20th century, with the major emphasis on contemporary poems.</p>	<p>LIT 35 — Science Fiction and Fantasy Survey 3 Units Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Prerequisite: ENGL 1A</i> A chronological survey of science (or speculative) fiction and fantasy from earliest classics to the present day. Examines early attempts by Aristophanes, Swift, and the "fathers" - H.G. Wells and Verne. Will emphasize contemporary writers such as Bradbury, Heinlein, Vonnegut, Ellison, Sturgeon, Asimov, and Clarke. Definitions and quality standards will be evolved.</p>	<p>MFG 11 — Manufacturing Processes I 2 Units (May be taken four times for credit.) Degree Appropriate, CSU 18 hours of lecture. 54 hours of lab. Manual and computerized manufacturing, manual lathes and mills, tool nomenclature and Computerized Numerical Control (CNC) operations. Operation of CNC machines. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>LIT 15 — Introduction to Cinema 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: ENGL 1A</i> 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.</p>	<p>LIT 36 — Introduction to Mythology 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: ENGL 1A</i> A survey of major myths, including creation, fertility, and hero myths. Explores theories and approaches to these archetypal stories and the ways that they reflect and shape culture. Emphasis is on classical myths, but myths from around the world may be included.</p>	<p>MFG 12 — Manufacturing Processes II 2 Units (May be taken two times for credit.) Degree Appropriate, CSU 18 hours of lecture. 54 hours of lab. <i>Advisory: MFG 11</i> 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. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>LIT 20 — African American Literature 3 Units Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Prerequisite: ENGL 1A</i> Surveys 18th, 19th and 20th century writings of African Americans. Emphasizes the oral tradition, development of protest literature and major modern and contemporary writers such as Wright, Ellison, Baldwin, Walker, and Morrison.</p>	<p>LIT 40 — Children's Literature 3 Units Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Prerequisite: ENGL 1A</i> Designed to give the student a knowledge and an appreciation of children's books, both fiction and non-fiction, from around the world. Special emphasis is given to analysis and interpretation of thematic and literary elements, suitability for age group, quality of writing and illustration, award-winning books, and issues related to cultural patterns, bias and persuasiveness.</p>	<p>MFG 15 — AutoCAD 2D 2 Units (May be taken four times for credit.) Degree Appropriate 18 hours of lecture. 54 hours of lab. Development of two dimensional AutoCAD mechanical screen drawings, as related to Computer Integrated Manufacturing (CIM), and Computer Aided Machines (CAM). Completed drawings will be translated into DXF and/or IGES files and then transferred to various CAD/CAM systems. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>LIT 25 — Contemporary Mexican American Literature 3 Units Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Prerequisite: ENGL 1A</i> Issues of contemporary Mexican-American literature, drama, and film. Includes discussion of the roles played by gender, religion, language, education, family, ethnic identity, and class. Also addresses application of literary tools such as symbolism, language, and theme.</p>		

Course Descriptions

<p>MFG 17 — 3-D CAD – Mechanical Modeling 2 Units (May be taken four times for credit.) Degree Appropriate 18 hours of lecture. 54 hours of lab. <i>Advisory: MFG 15</i> Development of three dimensional mechanical models using AutoCAD. Analysis and manipulation of mechanical solid models and industrial primitives as related to their interaction with Computer Aided Machines (CAM) and Computer Integrated Manufacturing (CIM) systems. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>MFG 38 — MasterCAM I 2 Units (May be taken four times for credit.) Degree Appropriate, CSU 18 hours of lecture. 54 hours of lab. 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.</p>	<p>MFG 58 — Blueprint Reading for Manufacturing 2 Units (May be taken two times for credit.) Degree Appropriate 36 hours of lecture. <i>Advisory: MFG 70</i> Blueprint reading as a means of interpreting and visualizing drawings used in manufacturing. Includes the basic print form, title block, notes, materials, machining specifications, application of principles to CNC, welding, and sheet metal. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>MFG 19 — Parametric Solid Modeling for Manufacturing 2 Units (May be taken four times for credit.) Degree Appropriate 18 hours of lecture. 54 hours of lab. <i>Advisory: MFG 17</i> Development of feature-based solid modeling on a computer using current software used in industry. Transfer of solid model to a CAM system for CNC code production. Includes production of a manufactured part using CNC mill. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>MFG 38B — Advanced MasterCAM 2 Units (May be taken four times for credit.) Degree Appropriate, CSU 18 hours of lecture. 54 hours of lab. <i>Advisory: MFG 38</i> 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.</p>	<p>MFG 70 — Technical Mathematics – Manufacturing Applications 2 Units (May be taken two times for credit.) Degree Appropriate, CSU 36 hours of lecture. Applications of mathematical principles in manufacturing. Includes arithmetic calculations, measurement, use of formulas, geometry, and trigonometry. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>MFG 25 — Advanced Parametric Solid Modeling for Manufacturing 2 Units (May be taken four times for credit.) Degree Appropriate 18 hours of lecture. 54 hours of lab. <i>Advisory: MFG 19 or MFG 27 taken previously</i> Advanced instruction in concepts, practice, and development of feature-based solid modeling using software currently used in the manufacturing industry. Advanced features of solid modeling global variables, 3-D helical paths generation, surface cut, table-driven parts, and advanced sheet metal, and animation. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>MFG 38C — MasterCAM Solids 2 Units (May be taken four times for credit.) Degree Appropriate 18 hours of lecture. 54 hours of lab. <i>Advisory: MFG 38B</i> Using MasterCAM software to design wire drawings, translate to solids drawings, and generate code from a solids creation to meet industrial standards. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>MFG 85 — Manual CNC (Computerized Numerical Control) Operations 2 Units (May be taken two times for credit.) Degree Appropriate, CSU 18 hours of lecture. 54 hours of lab. 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.</p>
<p>MFG 27 — Autodesk Inventor 2 Units (May be taken four times for credit.) Degree Appropriate 18 hours of lecture. 54 hours of lab. <i>Advisory: MFG 19</i> Advanced concepts, practice, and development of feature-based solid modeling using AutoDesk Inventor. Solid modeling parts creation using sketched, placed, and work features. Assembly techniques, working drawings, and the transfer of a solid model to a CAM system. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>MFG 39 — SurfCAM I 2 Units (May be taken four times for credit.) Degree Appropriate, CSU 18 hours of lecture. 54 hours of lab. <i>Advisory: MFG 11, MFG 85</i> SurfCAM software used to create part geometry from project drawings for two-axis milling and turning parts. Tool paths will be added and files completed and post-processed. Files will be downloaded to CNC machines. Students will be required to set up all cutting tools and machine the part. Students who repeat this course will improve their skills through further instruction and practice.</p>	<p style="text-align: center;">MATHEMATICS</p> <p>MATH 10 — Math Enhancement 0 Unit (May be taken four times for credit.) Pre-Collegiate 18 hours of activity. Linked with a corresponding math lecture section, this course provides hands-on activities and mathematical applications designed to enhance student success and abilities in the linked course. Supplemental learning activities such as computer projects, drill and practice, study skills development, group work and student presentations.</p>
	<p>MFG 39B — SurfCAM II 2 Units (May be taken four times for credit.) Degree Appropriate, CSU 18 hours of lecture. 54 hours of lab. <i>Advisory: MFG 39</i> Use SurfCAM software to create part geometry for three-axis milling and lathe parts from project drawings and CAD files. Tool paths will be added and the completed file will be post-processed and downloaded to CNC machine. Students will set up the required cutting tools and machine the part. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>MATH 50 — Pre-Algebra 3 Units 54 hours of lecture. Pre-Collegiate <i>Prerequisite: Credit in LERN 49 or qualifying score on current department placement test.</i> Fundamental principles of mathematics designed to ease the transition from arithmetic to algebra. Concepts, computational skills, thinking skills and problem-solving skills are balanced to build proficiency and mastery.</p>

<p>MATH 50L — Pre-Algebra Laboratory 0 Unit (May be taken four times for credit.) 108 hours of lab. <i>Corequisite: MATH 50</i> Open entry-open exit laboratory for students enrolled in pre-algebra. Individual and group assistance and instructional support, including review, drill and practice, and assistance with assigned laboratory projects in the Math Activities Resource Center (M.A.R.C.) Students who repeat this course will improve skills through further instruction and practice.</p>	<p>variables; finding the equations of lines; solving linear and absolute value inequalities; exponents; operations with polynomials and rational expressions; factoring techniques and solving polynomial equations; and solving systems of linear equations and inequalities. A student must complete both MATH 52 and MATH 72 to have taken the equivalent of MATH 71, and both in combination will satisfy the requirement for an A.S. or A.A. degree.</p>	<p>MATH 71B — Intermediate Algebra – Second Half 3 Units 54 hours of lecture. Degree Appropriate <i>Prerequisite: MATH 71A</i> Quadratic equations and graphs; exponents, radicals and logarithms; conic sections. A student must complete both MATH 71A AND MATH 71B to have taken the equivalent of intermediate algebra.</p>
<p>MATH 51 — Elementary Algebra 4 Units 72 hours of lecture. Degree Appropriate <i>Prerequisite: MATH 50 or qualifying score on current department placement test</i> Basic algebra, equivalent to first year high school algebra. Includes operations with signed numbers and algebraic expressions, linear equations and inequalities, polynomial operations and factoring, rational expressions and equations, Cartesian Coordinate System, slope/graphing/equations of lines, systems of linear equations, ratio/proportion, formulas and variation, applications, radicals and exponents, quadratic equations.</p>	<p>MATH 59 — Fundamental Applied Mathematics 3 Units 54 hours of lecture. Degree Appropriate <i>Prerequisite: MATH 50 or qualifying score on current department placement test</i> Develops practical problem-solving skills utilizing ratio, proportion, unit conversion, percent, algebraic formulas, exponents, functions, variation, linear equations in one and two variables, linear and non-linear graphs, systems of equations, statistics, and geometry. Especially appropriate for students in vocational programs leading to the Associate in Science degree.</p>	<p>MATH 72 — Algebra with Applications II 5 Units 90 hours of lecture. Degree Appropriate <i>Prerequisite: MATH 52</i> Limited to students who have successfully completed MATH 52. Features practical applications of complex fractions; solving rational equations and inequalities; exponents and radicals; solving quadratic equations and inequalities; complex numbers; the study of linear functions, quadratic functions, inverse functions, exponential and logarithmic functions, and the algebra of functions; solving systems of non-linear equations and inequalities; conics; sequences and series; and applications involving rational and quadratic equations, variation and linear, quadratic, exponential and logarithmic functions. A student must complete both MATH 52 and MATH 72 to have taken the equivalent of Math 71, and both in combination will satisfy the requirement for an A.S. or A.A. degree.</p>
<p>MATH 51A — Elementary Algebra – First Half 3 Units 54 hours of lecture. Degree Appropriate <i>Prerequisite: MATH 50 or qualifying score on current department placement test</i> Contains the first half of elementary algebra. Operations with signed numbers and algebraic expressions; linear equations and inequalities; polynomial operations and factoring; rational expressions and equations; ratios, proportions, formulas, and variation; applications.</p>	<p>MATH 61 — Plane Geometry 3 Units 54 hours of lecture. Degree Appropriate <i>Prerequisite: MATH 51 or MATH 51B or MATH 52 or qualifying score on current department placement test</i> 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.</p>	<p>MATH 96 — Strategies for Math Success 1 Unit (May be taken two times for credit.) Pre-Collegiate (May be taken for Credit/No Credit only.) 18 hours of lecture. Learning tools, plans and proper perspectives for math learning improvement. Use of natural intelligence strengths to simplify/optimize your mathematical/educational experience. Overcome test anxiety and enhance testing abilities. Course is appropriate for all levels of mathematics students. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>MATH 51B — Elementary Algebra – Second Half 3 Units 54 hours of lecture. Degree Appropriate <i>Prerequisite: MATH 51A</i> 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).</p>	<p>MATH 71 — Intermediate Algebra 5 Units 90 hours of lecture. Degree Appropriate <i>Prerequisite: MATH 51 or MATH 51B or qualifying score on current department placement test</i> Reviews and extends concepts from elementary algebra, and introduces new content to prepare students for a variety of subsequent mathematics courses. Polynomial, rational, radical, exponential and logarithmic expressions are simplified, equations solved and functions graphed and studied; linear and nonlinear systems of equations and inequalities; conic sections; sequence, series and the binomial theorem. Application problems appear throughout the course.</p>	<p>MATH 99 — Special Projects in Mathematics 2 Units (May be taken four times for credit.) Degree Appropriate, CSU 36 hours of lecture. In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>MATH 52 — Algebra with Applications I 4 Units 72 hours of lecture. Degree Appropriate <i>Prerequisite: MATH 50; OR passing score on current department placement test</i> First course in an alternative sequence equivalent to Beginning and Intermediate Algebra, featuring practical applications with a minimum of emphasis on review topics. Includes solving linear equations in one and two variables; applications; graphing linear equations in two</p>	<p>MATH 71A — Intermediate Algebra – First Half 3 Units 54 hours of lecture. Degree Appropriate <i>Prerequisite: MATH 51 or MATH 51B or qualifying score on current department placement test</i> Algebra of functions, polynomials, and rational expressions; functions and their graphs; systems of equations with two or three variables; absolute value and compound inequalities; sequences and series; the binomial theorem.</p>	

Course Descriptions

MATH 100 — Survey of College Mathematics **3 Units**
(CAN MATH 2) Degree Appropriate, CSU, UC
54 hours of lecture.

Prerequisite: (MATH 71 or MATH 71B or MATH 72 or qualifying score on current department placement test) AND (MATH 61 or two semesters of high school geometry, "C" or better, or passing score on current geometry competency test)

Introduction to mathematical methods and reasoning. Topics include: set theory, logic, counting methods, probability and statistics, with additional topics selected from numeration and mathematical systems, number theory, geometry, graph theory and mathematical modeling.

MATH 110 — Elementary Statistics **3 Units**
(CAN STAT 2) Degree Appropriate, CSU, UC
54 hours of lecture.

Prerequisite: MATH 71 or MATH 71B or MATH 72 or qualifying score on current department placement test

Emphasis is placed on the understanding of statistical methods. Descriptive analysis of sample statistics, distribution of discrete and continuous random variables, estimation theory, tests of hypotheses, regression, correlation and analysis of variance.

MATH 110H — Elementary Statistics – Honors **3 Units**
(CAN STAT 2) Degree Appropriate, CSU, UC
54 hours of lecture.

Prerequisite: (MATH 71 or MATH 71B or MATH 72 or qualifying passing score on current department placement test) AND acceptance into the Honors Program.

Emphasis is placed on the understanding of statistical methods. Descriptive analysis of sample statistics, distribution of discrete and continuous random variables, estimation theory, tests of hypotheses, regression, correlation and analysis of variance. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both MATH 110 and MATH 110H.

MATH 120 — Finite Mathematics **3 Units**
(CAN MATH12) Degree Appropriate, CSU, UC
Fall Semester

54 hours of lecture.

Prerequisite: MATH 71 or MATH 71B or MATH 72 or qualifying score on current department placement test

Mathematics for Business, Social Science and Biological Science majors. Topics include linear programming, matrix theory, probability, statistics, stochastic processes, Markov chains, and math of finance.

MATH 130 — College Algebra **3 Units**
(CAN MATH10) Degree Appropriate, CSU, UC
54 hours of lecture.

Prerequisite: MATH 71 or MATH 71B or MATH 72 or qualifying score on current department placement test

A study of real numbers and sets, algebraic functions and relations, radicals and exponents, linear and quadratic equalities and inequalities, exponential and logarithmic functions, systems of linear and quadratic equations, complex numbers, series, theory of equations, mathematical induction and binomial formula.

MATH 140 — Calculus for Business **4 Units**
(CAN MATH34) Degree Appropriate, CSU, UC
72 hours of lecture.

Prerequisite: MATH 130 or MATH 160 or qualifying score on current department placement test

Algebraic, logarithmic, and exponential functions; limits; differentiation with applications; various techniques of integration with applications; differential equations; multi variable calculus. Credit not given to persons with credit in MATH 180 or equivalent.

MATH 150 — Trigonometry **3 Units**
(CAN MATH 8) Degree Appropriate, CSU
54 hours of lecture.

Prerequisite: (MATH 71 or MATH 71B or MATH 72 or qualifying score on current department placement test) AND (MATH 61 or two semesters of high school geometry, "C" or better, or passing score on current geometry competency test)

Trigonometry functions and inverse trigonometric functions and the graphical representations of these functions; solutions to right and oblique triangles with laws of sines and cosines; vectors; solutions to trigonometric equations; identities; polar coordinates; complex numbers and DeMoivre's Theorem.

MATH 160 — Precalculus Mathematics **4 Units**
(CAN MATH16) Degree Appropriate, CSU, UC
72 hours of lecture.

Prerequisite: MATH 150 OR (high school trigonometry, "C" or better, and a passing score on current department placement test)

Real-valued functions, including algebraic, trigonometric, exponential and logarithmic functions. Also includes proofs, inequalities, introductory analytical geometry, series, sequences, and vectors.

MATH 180 — Calculus and Analytic Geometry **4 Units**
(CAN MATH18) Degree Appropriate, CSU, UC

MATH 180+181 = CAN MATH SEQ B

MATH 180+181+280 = CAN MATH SEQ C

72 hours of lecture.

Prerequisite: MATH 160 or qualifying score on current department placement test

Functions, curve sketching, limits, the derivative, rules for differentiation of algebraic and trigonometric functions, applications of the derivative. Indefinite and definite integrals, numerical integration, and calculus with exponential, logarithmic, and other transcendental functions.

MATH 181 — Calculus and Analytic Geometry **5 Units**
(CAN MATH20) Degree Appropriate, CSU, UC

MATH 180+181 = CAN MATH SEQ B

MATH 180+181+280 = CAN MATH SEQ C

90 hours of lecture.

Prerequisite: MATH 180

Applications of integration, techniques of integration; indeterminate forms and improper integrals; infinite series; plane curves and parametric equations; vectors in two and three space and their applications.

MATH 210 — Concepts of Elementary Mathematics **3 Units**
(CAN MATH 4) Degree Appropriate, CSU
54 hours of lecture.

Prerequisite: MATH 100

Structure and theory of the mathematics that constitute the core of K-8 mathematics curriculum. Concepts include the essential elements of a number system; fundamental understanding of operations upon whole numbers, rational numbers and integers; higher-order critical thinking skills and strategies in the area of problem solving.

MATH 245 — A Transition to Advanced Mathematics **3 Units**
54 hours of lecture. Degree Appropriate, CSU

Prerequisite: MATH 181

A transition to the rigors of upper-division mathematics courses. Basic set theory and logic, relations, functions, mathematical induction, the well-ordering principle, countable and uncountable sets, the Schroder-Bernstein Theorem, the axiom of choice, Zorn's Lemma, the Heine-Borel Theorem, the Bolzano-Weierstrass Theorem. Special emphasis on how to present and understand mathematical proofs.

MATH 280 — Calculus and Analytic Geometry **4 Units**
72 hours of lecture. Degree Appropriate, CSU, UC

Prerequisite: MATH 181

Analysis of vector-valued functions of several variables, partial derivatives, differentials, the chain rule, directional derivatives and the gradient. Extrema of functions of several variables with applications. Double and triple integrals in various coordinate systems with applications. Vector fields, line integrals, work, independence of path in conservative fields. Green's Theorem, surface integrals, flux, divergence and curl, Stokes' Theorem, the Divergence Theorem.

MATH 285 — Linear Algebra and Differential Equations **5 Units**
(CAN MATH24) Degree Appropriate, CSU, UC
90 hours of lecture.

Prerequisite: MATH 280

First order ordinary differential equations, including separable, linear, homogeneous of degree zero, Bernoulli and exact with applications and numerical methods. Solutions to higher order differential equations using undetermined coefficients, variation of parameters, and power series, with applications. Solutions to linear and non-linear systems of differential equations, including numerical solutions. Matrix algebra, solutions of linear systems of equations, and determinants. Vector

spaces, linear independence, basis and dimension, subspace and inner product space, including the Gram-Schmidt procedure. Linear transformations, kernel and range, eigenvalues, eigenvectors, diagonalization and symmetric matrices.

MEDICAL TERMINOLOGY

MEDI 90 — Medical Terminology 3 Units
 54 hours of lecture. Degree Appropriate, CSU
 Introduction to the use and meaning of the medical terminology used in various allied health fields. Relates to other allied health fields and can apply to secretarial science majors.

MENTAL HEALTH/PsYCHIATRIC TECHNICIAN

MENT 40 — Introduction to Interviewing and Counseling 3 Units
 54 hours of lecture. Degree Appropriate
 Provides a basic overview of the helping processes. Stresses application of counseling theories, helping skills, and consultation theories to allow exploration of self as a helper and learn facilitating skills to bring about change. Emphasis on establishing rapport, obtaining information and developing a supportive relationship in a variety of mental health settings. Students may not receive credit for both MENT 40 and PSYC 40.

MENT 56 — Medical-Surgical Nursing for Psychiatric Technicians 9 Units
 162 hours of lecture. Degree Appropriate
Prerequisite: Admission to the Psychiatric Technician Program
Corequisite: MENT 56L
 Holistic approach to assessment and intervention in the care of the medical-surgical patient. Examines physiological modes of rest and exercise, regulation, circulation, ventilation and the sensory system; medical-surgical nursing; care of the dying patient, cardiovascular problems; calculations of drug dosage and administration of oral and topical medications; study of anatomy and physiology of the human body.

MENT 56L — Clinical Experience 4 Units
 (May be taken for Credit/No Credit only.) Degree Appropriate
 216 hours of lab.
Corequisite: MENT 56
 Development of medical-surgical nursing skills. Application and assessment, intervention, evaluation of nursing treatment in the physiological modes of rest and exercise, regulation, nutrition, elimination, application of emergency procedures, circulation, ventilation, and sensory system. Application of nursing skills to medical surgical patients, including neoplasms and cardiovascular problems. Administration of medication.

MENT 58 — Advanced Medical-Surgical Nursing for Psychiatric Technicians 2 Units
 36 hours of lecture. Degree Appropriate
Prerequisite: MENT 56
Corequisite: MENT 58L
 Examines disease processes which affect the body systems, related terminology, causes and symptoms, required medical and nursing care, and diet therapy.

MENT 58L — Advanced Medical-Surgical Nursing for Psychiatric Technicians Clinical 1.5 Units
 (May be taken for Credit/No Credit only.) Degree Appropriate
 90 hours of lab.
Corequisite: MENT 58
 Application of nursing skills to patients with medical/surgical disorders. Administration of medications.

MENT 70 — Introduction to Psychiatric Technology 1.5 Units
 27 hours of lecture. Degree Appropriate
Prerequisite: Admission to Psychiatric Technician Program
Corequisite: MENT 70L
 Role and function of the Psychiatric Technician; mental health theories of personality development, self-concept, role function, and interdependence; developmental disabilities theories of sensorimotor techniques, behavior modification techniques.

MENT 70L — Introduction to Psychiatric Technology Clinical Technicians 2 Units
 (May be taken for Credit/No Credit only.) Degree Appropriate
 108 hours of lab.
Corequisite: MENT 70
 The clinical experience introduces the student to facilities within the community which serve the mental health field including both the mentally disordered and developmentally disabled.

MENT 71 — Pharmacology for Psychiatric Technicians 2 Units
 36 hours of lecture. Degree Appropriate
Advisory: MENT 56
 Study of drugs in current use, their physical properties; absorption; actions, both therapeutic and toxic; contraindications; standards; modes of administration; and mathematics for medication.

MENT 72 — Nursing Care of the Developmentally Disabled Person 7 Units
 126 hours of lecture. Degree Appropriate
Prerequisite: MENT 56, MENT 70
Corequisite: MENT 72L
 Etiology of mental retardation; develops the knowledge, skills, and attitudes necessary to safely teach and train the developmentally disabled person. Techniques of behavior modification and sensory-motor training are used, as well as the teaching of self-help skills. Examines normal development from infancy to the aged.

MENT 72L — Nursing Care of the Developmentally Disabled Person – Clinical 5 Units
 (May be taken for Credit/No Credit only.) Degree Appropriate
 288 hours of lab.
Corequisite: MENT 72
 Application of skills needed to teach, train and provide care for the developmentally disabled person. Administration of medication.

MENT 73L — Psychiatric Nursing for Psychiatric Technicians Clinical 5 Units
 (May be taken for Credit/No Credit only.) Degree Appropriate
 288 hours of lab.
Corequisite: MENT 73T
 Clinical instruction in the treatment of mental disabilities and substance abuse.

MENT 73T — Psychiatric Nursing for Psychiatric Technicians 6 Units
 108 hours of lecture. Degree Appropriate
Corequisite: MENT 73L
 Theoretical instruction in the assessment and treatment of the mentally disabled, use of common medication, therapeutic communication, assertive language and leadership skills appropriate for the practicing Psychiatric Technician.

MENT 82 — Work Experience in Mental Health Technology 2 Units
 (May be taken for Credit/No Credit only.) Degree Appropriate
 150 hours of lab.
Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog, MENT 72, MENT 73T
 Provides majors with actual on-the-job experience in an approved work station related to classroom instruction. A minimum of 60 non-paid or 75 paid clock hours per semester is required for each unit of credit. It is recommended that the hour per week be equally distributed throughout the semester. Veterans may not use work experience courses as credit towards veterans benefits.

METEOROLOGY

METO 3 — Weather and the Atmospheric Environment 3 Units
 54 hours of lecture. Degree Appropriate, CSU, UC
 An introduction to the atmosphere. Processes that influence weather and climate: seasonality, structure of the atmosphere, atmospheric stability, severe weather (hurricanes, tornadoes, thunderstorms,) climate change, and the causes and effects of air pollution. Students will use a variety of weather instruments, and the course may include either field work or field trips.

METO 3L — Weather and Atmospheric Environment Laboratory 1 Unit
 54 hours of lab. Degree Appropriate, CSU, UC
Corequisite: METO 3 (May have been taken previously)
 Laboratory topics paralleling the course content of METO 3.

Course Descriptions

MICROBIOLOGY		
<p>MICR 1 — Principles of Microbiology 5 Units (CAN BIOL14) Degree Appropriate, CSU, UC 54 hours of lecture. 108 hours of lab. <i>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</i> Fundamental concepts of microbiology with emphasis on bacteria. Survey or 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.</p>	<p>MUS 3A — Harmony 3 Units Spring Semester Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite: MUS 2, MUS 5A</i> <i>Corequisite: MUS 5B</i> An examination of the harmonic style of composers of the 17th and 18th centuries, including diatonic harmony and melody, rhythm and structure. Original four-part compositions will be written.</p>	<p>MUS 6A — Musicianship – Advanced 2 Units 36 hours of lecture. Degree Appropriate, CSU, UC 18 hours of lab. <i>Prerequisite: MUS 3A</i> <i>Corequisite: MUS 3B</i> Diatonic chord progressions studied in MUS 3A are used for dictation exercises in this course. Clef dictation, keyboard harmony, and sight singing will also be included. Students will be aided by the use of a computer lab, and documented lab time outside of class will be required for successful course completion.</p>
<p>MICR 22 — Microbiology 4 Units 54 hours of lecture. Degree Appropriate, CSU, UC 54 hours of lab. <i>Prerequisite: CHEM 10 or CHEM 40 or one year of high school chemistry (C or better)</i> Fundamental concepts of microbiology; viruses, bacteria, fungi, protozoa and parasitic worms. Covers microbial classification, physiology and genetics; host-parasite interaction; control of disease-causing agents; public health microbiology; immune response and immune disorders. Important diseases of humans and other animals are surveyed. Laboratory exercises include experiments and observation on the morphology, physiology, and control of microorganisms.</p>	<p>MUS 3B — Harmony 3 Units Fall Semester Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite: MUS 3A, MUS 5B</i> <i>Corequisite: MUS 6A</i> A continuation of the examination of homophonic style of composers of the 17th through mid-19th centuries. Topics will include study of modulation, seventh chords, secondary dominants, and irregular resolutions of chords. Original four-part compositions will be written.</p>	<p>MUS 6B — Musicianship – Advanced 2 Units 36 hours of lecture. Degree Appropriate, CSU, UC 18 hours of lab. <i>Prerequisite: MUS 3B, MUS 6A</i> <i>Corequisite: MUS 3C</i> Chord progression studied in MUS 3B and 3C are used for dictation exercises Keyboard harmony and sight singing will also be included. Students will be aided by the use of a computer lab, and documented lab time outside of class will be required for successful course completion.</p>
<p>MUS 1 — Concert Music 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 18 hours of lecture. A concert experience in listening to recitals, media presentations, musical demonstrations and lectures given by faculty, guest artists, and students. Attendance at and reports on additional live concerts may be required. Students who repeat this course will improve skills through further instruction and practice. Course open to all students.</p>	<p>MUS 3C — Harmony 3 Units Spring Semester Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite: MUS 3B, MUS 6A</i> <i>Corequisite: MUS 6B</i> A further examination of homophonic style of composers of the late 18th through early 20th century. Topics will include study of non-dominant chords, chromatically altered chords, and Neapolitan and Augmented Sixth chords. Original four-part compositions will be written.</p>	<p>MUS 7 — Fundamentals of Music 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC Non-music major course dealing with basic elements of music notation, melody, rhythm, and harmony. Written exercises utilizing the techniques of melody, rhythm, and harmony will be employed. Recommended for prospective elementary school teachers.</p>
<p>MUS 2 — Music Theory 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Corequisite: MUS 5A</i> Required for music majors. Reviews and examines the materials of musical notation, rhythm, tonality and modality, melody and scale structure, and music terminology.</p>	<p>MUS 5A — Musicianship – Ear Training and Sight Singing 1 Unit 18 hours of lecture. Degree Appropriate, CSU, UC 18 hours of lab. <i>Corequisite: MUS 2</i> Emphasizes sight singing and the aural perception of rhythm, melody, intervals, and simple harmonic progressions. Students will be aided by the use of a computer lab, and documented lab time outside of class will be required for successful course completion.</p>	<p>MUS 9 — Introduction to Music Technology 3 Units (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 36 hours of lab. <i>Advisory: Eligibility for ENGL 68</i> Develops an understanding of the principles of musical acoustics and sound generation. Teaches basic techniques for using audio equipment to electronically generate sound. Students who repeat this course will improve skills through further instruction and practice.</p>
	<p>MUS 5B — Musicianship – Ear Training and Sight Singing 1 Unit 18 hours of lecture. Degree Appropriate, CSU, UC 18 hours of lab. <i>Prerequisite: MUS 2, MUS 5A</i> <i>Corequisite: MUS 3A</i> Provides further ear training and sight singing experience including two-part harmonic dictation. Students will be aided by the use of a computer lab, and documented lab time outside of class will be required for successful course completion.</p>	<p>MUS 11A — Music Literature Survey 3 Units Fall Semester Degree Appropriate, CSU, UC 54 hours of lecture. A survey of western music from the Medieval period through the 18th century including examples of music from several non-western cultures. Lectures are augmented by recordings and other support media pertinent to the culture/period being studied. Attending at least one live concert is required.</p>

<p>MUS 11B — Music Literature Survey 3 Units Spring Semester Degree Appropriate, CSU, UC 54 hours of lecture. A survey of western music from the 18th to the early 21st century including examples from several non-western cultures that have influenced music of those style periods. Lectures are augmented by recordings and other support media pertinent to the cultures/period being studied. Attending at least one live concert is required.</p>	<p>MUS 14B — American Folk Music 3 Units <i>Formerly MUS 10</i> Degree Appropriate, CSU 54 hours of 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.</p>	<p>MUS 18 — Advanced Class Piano 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC 18 hours of lecture. 18 hours of lab. <i>Advisory: MUS 17B</i> The style, technique and interpretation of piano music from the 17th century to the present is studied collectively and individually. Sight reading, improvisation and ensemble playing will be emphasized. Students who repeat this course will improve skills through further instruction and practice. Recommended for music majors.</p>
<p>MUS 12 — History of Jazz 3 Units Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Advisory: Eligibility for ENGL 68</i> A survey of jazz as a significant American art form from its roots in African and Creole music to the present. Major styles, leading performers, significant compositions and recordings, and the social, economic, and cultural contexts of the music will be stressed.</p>	<p>MUS 15 — Rock Music History and Appreciation 3 Units Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. Historical survey of rock music from its beginnings in the early 50's to the present. Rhythm & Blues, Rockabilly, the British Invasion, Motown, Soul, Folk Rock, Hard Rock, Punk, Heavy Metal, and various Alternative Rock styles will be discussed. Personalities and musical styles will be related to the sociology of the time period being studied.</p>	<p>MUS 19 — Class Organ 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC 18 hours of lecture. 18 hours of lab. <i>Advisory: MUS 17A and MUS 17B or equivalent</i> Group and individual instruction in registration, manual and pedal technique, interpretation of standard organ literature, and organ MIDI technique. Special projects will be given for prospective church organists. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>MUS 13 — Introduction to Music Appreciation 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC An introductory study of music from a variety of cultures including a survey of western music from the Medieval period through the 21st century. Lectures are augmented by recordings and other support media pertinent to the culture/period being studied. Attending at least one live concert is required.</p>	<p>MUS 16 — Individual Instruction 3 Units (CAN MUS 14) Degree Appropriate, CSU, UC (May be taken four times for credit.) 18 hours of lecture. 108 hours of lab. <i>Prerequisite: Admission by audition</i> A course in applied music for students also enrolled in a major performing group. Instruction includes a private one-half hour lesson plus five and one-half hours of laboratory practice per week. Individual problems of performance techniques, interpretation, and repertoire are included. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>MUS 20A — Elementary Class Voice 1 Unit (May be taken two times for credit.) Degree Appropriate, CSU, UC 18 hours of lecture. 18 hours of lab. Group instruction on the basics of singing with special emphasis on breath control and its importance in the singing of the musical line. English and American songs will be studied. Open to non-music majors and recommended for all music majors. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>MUS 13H — Introduction to Music Appreciation – Honors 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: Acceptance into the Honors Program</i> An introductory study of music from a variety of cultures including a survey of western music from the Medieval period through the 21st century. Lectures are augmented by recordings and other support media pertinent to the culture/period being studied. Attending at least one live concert is required. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both MUS 13 and MUS 13H.</p>	<p>MUS 17A — Elementary Class Piano 1 Unit (CAN MUS 22) Degree Appropriate, CSU, UC (May be taken two times for credit.) 18 hours of lecture. 18 hours of lab. Reading and performance of piano literature with emphasis on scales, chord progressions, and sight reading. Students who repeat this course will improve skills through further instruction and practice. No prior musical experience is required.</p>	<p>MUS 20B — Intermediate Class Voice 1 Unit (May be taken two times for credit.) Degree Appropriate, CSU, UC 18 hours of lecture. 18 hours of lab. <i>Advisory: MUS 20A</i> Group and individual instruction toward mastering the basic skills required for a solid singing technique for popular, theatrical, and classical music. Studies of musicianship will concentrate on individual vocal problems. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>MUS 14A — World Music 3 Units <i>Formerly MUS 14</i> Degree Appropriate, CSU, UC 54 hours of lecture. <i>Advisory: Eligibility for ENGL 68</i> Examines the dominant musical cultures of the world within Africa, the Americas, and Asia and compares these to Western popular music. Identifies vocal and instrumental genres within selected cultures and examines the harmonic, melodic, and rhythmic characteristics of each style. Lectures, films, recordings, and media presentations will assist the student in exploring the ways in which music is used around the world for aesthetic, social, and spiritual purposes.</p>	<p>MUS 17B — Intermediate Class Piano 1 Unit (CAN MUS 24) Degree Appropriate, CSU, UC (May be taken two times for credit.) 18 hours of lecture. 18 hours of lab. <i>Advisory: MUS 17A or professor approval</i> Reading and performances of piano literature with further emphasis on scales, chord progressions, and sight reading. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>MUS 21 — Advanced Class Voice 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC 18 hours of lecture. 18 hours of lab. <i>Advisory: MUS 20B</i> Group and individual study of the style, techniques, and interpretation of art songs and songs from operas and musicals. Emphasis will be placed on diction and pronunciation of foreign languages. Students who repeat this course will improve skills through further instruction and practice.</p>

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MUS 22 — Conducting **1 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU
18 hours of lecture.
18 hours of lab.
Teaches and practices basic beat patterns, score reading, and rehearsal techniques. Offers an opportunity to learn and apply the techniques needed for group direction and leadership. Students who repeat this course will improve skills through further instruction and practice.

MUS 23A — Elementary Class Guitar **1 Unit**
(May be taken two times for credit.) Degree Appropriate, CSU, UC
18 hours of lecture.
18 hours of lab.
Acoustic guitar playing, note reading, strumming, finger picking and improvisation. Students must furnish their own guitars. Students who repeat this course will improve skills through further instruction and practice.

MUS 23B — Intermediate Class Guitar **1 Unit**
(May be taken two times for credit.) Degree Appropriate, CSU, UC
18 hours of lecture.
18 hours of lab.
Advisory: MUS 23A
Techniques for reading and playing music arranged for the solo guitar. Students must furnish their own acoustic guitar. Students who repeat this course will improve skills through further instruction and practice.

MUS 24 — Advanced Class Guitar **1 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU, UC
18 hours of lecture.
18 hours of lab.
Advisory: MUS 23B
The style, technique, and interpretation of guitar music of the 18th and 19th centuries will be studied and performed. Sight reading and ensemble playing will be emphasized. Students must furnish their own acoustic guitars. Students who repeat this course will improve skills through further instruction and practice.

MUS 25A — Jazz Improvisation **1 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
18 hours of lecture.
18 hours of lab.
Advisory: MUS 2 or MUS 7 and/or audition by professor
Styles and techniques of improvisation. Each student must furnish his/her own instrument and be able to perform individually and with the class. Students who repeat this course will improve skills through further instruction and practice.

MUS 25B — Jazz Improvisation **1 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
18 hours of lecture.
18 hours of lab.
Advisory: MUS 2 or MUS 7 and/or audition by professor AND MUS 25A or equivalent experience

Styles and techniques of improvisation. Each student must furnish his/her own instrument and be able to perform individually and with the class. Augments and supplements MUS 25A. Students who repeat this course will improve skills through further instruction and practice.

MUS 27 — Chamber Winds **2 Units**
(May be taken four times for credit.) Degree Appropriate, CSU, UC
108 hours of lab.

Corequisite: Admission by audition; MUS 49
This select ensemble of wind instruments will study and perform small ensemble music by major composers. Includes brass and woodwind quintets and ensembles for families of instruments. Attendance is required at all public performances. Students who repeat this course will improve skills through further instruction and practice.

MUS 29 — Choral Workshop **1 Unit**
Summer Semester Degree Appropriate, CSU, UC
(May be taken four times for credit.)
54 hours of lab.

Open to all students without an audition. Choral music of all genres with an emphasis on strengthening choral skills, including sight singing, tone, blend, balance and good vocal technique. Covers choral tone of the Renaissance to correct use of the microphone when singing pop or vocal jazz. Several guest conductors from local universities will provide clinics. Students who repeat this course will improve skills through further instruction and practice.

MUS 30 — Collegiate Chorale **1 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU, UC
54 hours of lab.

A non-auditioned mixed choral ensemble open to all students. A variety of mixed choral repertoire will be studied and performed, from music of the Renaissance to contemporary Pop, Broadway, and Vocal Jazz. Rehearsal time will also be devoted to vocal development and improving music theory skills. Students who repeat this course will improve skills through further instruction and practice.

MUS 31 — Concert Choir **2 Units**
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
108 hours of lab.

Prerequisite: Admission by audition the first week of class
A mixed choral ensemble in which students perform a variety of major choral works. Classical songs are rehearsed in class and performed for a

public audience. Sight singing skills and proper vocal technique are emphasized. Voice placement auditions are held the first week of class. Attendance at all performances is required. Students who repeat this course will improve skills through further instruction and practice.

MUS 32 — Masterworks Chorale **1 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU, UC
54 hours of lab.

Prerequisite: Admission by audition during the first week of class
This Soprano, Alto, Tenor, Bass choir will perform major choral works ranging from the Baroque era to the 20th century. In addition to preparation and performance of quality choral literature from all genres, time will be spent on vocal development and music theory. Students who repeat this course will improve their skills through further instruction, practice, and knowledge of varied repertoire.

MUS 34 — Women's Vocal Ensemble **2 Units**
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
108 hours of lab.

Prerequisite: Admission by audition during the first week of class
This women's group will study and perform selected classical works, folk songs, spirituals, and popular compositions. Attendance is required at all public performances. Students who repeat this course will improve skills through further instruction and practice.

MUS 36 — Concert and Community Band **2 Units**
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
108 hours of lab.

Advisory: Previous band experience
Study and performance of standard and new band literature. Experience will be given to capable student directors, soloists, arrangers and composers. Attendance is required at all public performances. Students who repeat this course will improve skills through further instruction and practice.

MUS 38 — Ensemble **1 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
18 hours of lecture.
18 hours of lab.

Prerequisite: Ability to read music or admission by audition
The study and performance of music written for small ensembles. Students who repeat this course will improve skills through further instruction and practice.

<p>MUS 39 — Laboratory Band 2 Units (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 108 hours of lab. <i>Prerequisite: Admission by audition</i> Study and performance of jazz and popular music of all types. Provides the necessary training and experience for MUS 47, Jazz Band, or for the improvement of skills necessary for employment in the field. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>The "Mt. SAC Singers" is a select choral ensemble, specializing in choreographed popular and musical theater literature. Includes a wide variety of music performed publicly several times every semester. Emphasizes advanced musical skills, vocal technique, choreography and showmanship skills. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>MUS 99B — Special Projects in Music 2 Units Spring Semester Degree Appropriate, CSU (May be taken four times for credit.) 36 hours of lecture. Offered to selected students in recognition of academic interests and abilities to give them the opportunity to explore these interests and abilities in greater depth. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor's approval before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced. Projects must be approved in advance.</p>
<p>MUS 40 — Pep Band 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC 54 hours of lab. <i>Prerequisite: Admission by audition</i> Study and performance of standard and contemporary music for athletic and school spirit functions. Attendance is required at assigned public performances. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>MUS 47 — Jazz Band 3 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 162 hours of lab. <i>Prerequisite: Admission may be required</i> An instrumental ensemble dealing with all types of popular music and jazz. Preference will be given to performers playing more than one instrument. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>MUS 99C — Special Projects in Music 3 Units (May be taken four times for credit.) Degree Appropriate 162 hours of lab. Offered to selected students in recognition of academic interests and abilities to give them the opportunity to explore these interests and abilities in greater depth. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor's approval before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced. Projects must be approved in advance.</p>
<p>MUS 44 — Vocal Jazz Ensemble 3 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 162 hours of lab. <i>Prerequisite: Admission by audition</i> A mixed vocal group, which includes a live rhythm section for accompaniment. Performance of vocal music in all jazz idioms. Performs for the public at festivals and at competitions. Scat improvisations and the study of jazz theory will be covered. Auditions are held the first week of classes. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>MUS 48 — Men's Vocal Ensemble 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 108 hours of lab. <i>Prerequisite: Admission by audition the first week of class</i> The study and performance of selected classical works, folk songs, spirituals, and popular compositions. Attendance is required at all public performances. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>MUS 99C — Special Projects in Music 3 Units (May be taken four times for credit.) Degree Appropriate 162 hours of lab. Offered to selected students in recognition of academic interests and abilities to give them the opportunity to explore these interests and abilities in greater depth. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor's approval before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced. Projects must be approved in advance.</p>
<p>MUS 45 — Chamber Singers 3 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 162 hours of lab. <i>Prerequisite: Admission by audition</i> A highly select mixed choral group, specializing in smaller ensemble repertoire. A wide variety of choral literature is performed publicly several times each semester and a performance tour occurs each Spring semester. Emphasizes advanced musical skills and vocal techniques while focusing on the importance of blend, balance, and tone. Auditions for this course are held each May. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>MUS 49 — Wind Ensemble 3 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC 162 hours of lab. <i>Prerequisite: Admission by audition</i> The premier classical wind and percussion ensemble at the College. Students must have previous instrumental training and demonstrate proficiency. Requires public performances. Concerts emphasize works of major composers, original compositions, and guest artists. Experience may be given to capable students as directors, soloists, arrangers, and composers. Students who repeat this course will improve skills through further instruction and practice.</p>	<p style="text-align: center;">NURSING</p> <p>NURS 1A — The Nursing Process I 4.75 Unit 45 hours of lecture. Degree Appropriate, CSU 126 hours of lab. <i>Prerequisite: Admission to Nursing Program; ANAT 35 or equivalent and ANAT 36 or equivalent, or ANAT 10A or equivalent and ANAT 10B or equivalent, and MICR 22 or equivalent, or MICR 1 or equivalent, and ENGL 1A or equivalent</i> <i>Corequisite: NURS 2</i> Principles of nursing as related to a culturally diverse population, adulthood through senescence. Theory and application of the Nursing Process. Including meaning of illness, promoting health patterns, hygiene, safety, asepsis, medication administration, elimination, communication. The Betty Neuman Model serves as the conceptual framework.</p>
<p>MUS 46 — Mt. SAC Singers 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. 36 hours of lab. <i>Prerequisite: Admission by audition</i></p>	<p>MUS 99A — Special Projects in Music 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU 18 hours of lecture. Offered to selected students in recognition of academic interests and abilities to give them the opportunity to explore these interests and abilities in greater depth. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor's authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced. Projects must be approved in advance.</p>	<p>NURS 1B — The Nursing Process II 4.75 Unit 45 hours of lecture. Degree Appropriate, CSU 126 hours of lab. <i>Prerequisite: NURS 1A or Advanced Placement</i> <i>Corequisite: NURS 2</i> Principles of nursing as related to culturally diverse population, adulthood through senescence. Theory and application of the Nursing Process including wound care, legal/ethical aspects, comfort, fluid and electrolytes, spirituality, and nursing trends. The Betty Neuman Model serves as the conceptual framework.</p>

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<p>NURS 2 — Pharmacology 2 Units 36 hours of lecture. Degree Appropriate, CSU <i>Prerequisite: Admission to Nursing Program and eligibility for MATH 51</i> <i>Corequisite: NURS 1A</i> The ethical and legal responsibilities in the administration of medications. Application of mathematical concepts, the Nursing Process, and drug therapy to the administration of fluids and medications.</p>	<p>NURS 8 — Medical-Surgical Nursing: Circulation and Oxygenation 5 Units 45 hours of lecture. Degree Appropriate, CSU 144 hours of lab. <i>Prerequisite: NURS 7 or Advanced Placement</i> <i>Corequisite: NURS 9</i> Concepts for nursing assessment and intervention with application to clients with cardiovascular and pulmonary problems. The Betty Neuman Model serves as the conceptual framework.</p>	<p>NURS 21 — Nursing Work Experience Program 2 Units (May be taken four times for credit.) Non-Degree Credit (May be taken for Credit/No Credit only.) 150 hours of lab. <i>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog. Current satisfactory status in the Nursing Program.</i> On-the-job experience for nursing students in an approved work setting related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>NURS 3 — Medical-Surgical Nursing: Locomotion/Sensation/ Integument/Oncology/Immunology 3.5 Units 30 hours of lecture. Degree Appropriate, CSU 99 hours of lab. <i>Prerequisite: NURS 1B and NURS 2 or Advanced Placement</i> 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.</p>	<p>NURS 9 — Leadership in Nursing 1 Unit 18 hours of lecture. Degree Appropriate, CSU <i>Prerequisite: NURS 7 or Advanced Placement</i> <i>Corequisite: NURS 8</i> Assists the second year student to develop cognitive skills for first level management positions. To provide information and discussion for current trends and issues in nursing.</p>	<p>NURS 21 — Nursing Work Experience Program 2 Units (May be taken four times for credit.) Non-Degree Credit (May be taken for Credit/No Credit only.) 150 hours of lab. <i>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog. Current satisfactory status in the Nursing Program.</i> On-the-job experience for nursing students in an approved work setting related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>NURS 4 — Maternity Nursing 3 Units 27 hours of lecture. Degree Appropriate, CSU 81 hours of lab. <i>Prerequisite: NURS 3 or Advanced Placement</i> Concepts of nursing assessment and intervention with application to maternity and newborn clients. The Betty Neuman Model serves as the conceptual framework.</p>	<p>NURS 10 — Medical-Surgical Nursing: Integration/Regulation 4 Units 45 hours of lecture. Degree Appropriate, CSU 96 hours of lab. <i>Prerequisite: NURS 8, NURS 9 or Advanced Placement</i> Concepts of nursing assessment and intervention with application to clients with neurological and endocrine disorders. The Betty Neuman Model serves as the conceptual framework.</p>	<p>NURS 22 — Nursing Work Experience Program 3 Units (May be taken four times for credit.) Non-Degree Credit (May be taken for Credit/No Credit only.) 225 hours of lab. <i>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog. Current satisfactory status in the Nursing Program.</i> On-the-job experience for nursing students in an approved work setting related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>NURS 5 — Psychiatric Nursing 3 Units 27 hours of lecture. Degree Appropriate, CSU 81 hours of lab. <i>Prerequisite: NURS 4 or Advanced Placement and PSYC 1A</i> 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.</p>	<p>NURS 11 — Preceptorship in Nursing 2 Units (May be taken for Credit/No Credit only.) Degree Appropriate, CSU 111.99 hours lab. <i>Advisory: NURS 10 or Advanced Placement</i> Students participate as a pre-licensed health team member immediately prior to graduation. Students assume responsibility for a group of clients under direct supervision of a qualified registered nurse.</p>	<p>NURS 23 — Nursing Work Experience Program 4 Units (May be taken four times for credit.) Non-Degree Credit (May be taken for Credit/No Credit only.) 300 hours of lab. <i>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog. Current satisfactory status in the Nursing Program.</i></p>
<p>NURS 6 — Pediatric Nursing 3 Units 27 hours of lecture. Degree Appropriate, CSU 81 hours of lab. <i>Prerequisite: NURS 5 or Advanced Placement and CHLD 10 or PSYC 14</i> Concepts of nursing assessment and intervention with application to pediatric clients. The Betty Neuman Model serves as the conceptual framework.</p>	<p>NURS 20 — Nursing Work Experience Program 1 Unit (May be taken four times for credit.) Non-Degree Credit (May be taken for Credit/No Credit only.) 75 hours of lab. <i>Prerequisite: Compliance with Work Experience regulations as designated in the College Catalog. Current satisfactory status in the Nursing Program.</i> On-the-job experience for nursing students in an approved work setting related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.</p>	
<p>NURS 7 — Medical-Surgical Nursing: Nutrition/Elimination/Surgical Asepsis 7 Units 60 hours of lecture. Degree Appropriate, CSU 198 hours of lab. <i>Prerequisite: NURS 6 or Advanced Placement</i> Concepts of nursing assessment and intervention with application to clients with problems of nutrition, elimination, and the reproductive systems. Clients in pre-, intra-, and post-operative settings are included. The Betty Neuman Model serves as the conceptual framework.</p>		

On-the-job experience for nursing students in an approved work setting related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

NURS 70 — Role Transition **3 Units**
(May be taken for Credit/No Credit only.) Degree Appropriate
36 hours of lecture.
54 hours of lab.

Prerequisite: Advanced Placement; PT (Psychiatric Technician) or LVN (Licensed Vocational Nurse); ANAT 35 or equivalent and ANAT 36 or equivalent, or ANAT 10A or equivalent and ANAT 10B or equivalent, and MICR 22 or equivalent, or MICR 1 or equivalent, and ENGL 1A or equivalent, and PSYC 1A or equivalent, and CHLD 10 or equivalent or PSYC 14 or equivalent

For the LVN (Licensed Vocational Nurse), PT (Psychiatric Technician) or advanced placement student transitioning into the role of the RN (Registered Nurse). Theory and application of concepts of physical assessment, the relationship of homeostatic mechanisms to fluid and electrolyte balance/imbalance utilizing the Betty Neuman Model as the conceptual framework.

NURS 99 — Special Projects in Nursing **2 Units**
(May be taken four times for credit.) Non-Degree Credit
(May be taken for Credit/No Credit only.)
108 hours of lab.

Prerequisite: Placement in Nursing Program

Provides students the opportunity to explore a discipline in greater depth. Content of each course and the methods of study will depend on the particular project. Instructor's authorization before enrolling is required.

NUTRITION & FOOD

NF 10 — Nutrition for Personal Health and Wellness **3 Units**
54 hours of lecture. Degree Appropriate, CSU
Prerequisite: Eligibility for ENGL 68

Basic principles of human nutrition and their relationship to optimum health. Emphasizes nutrient needs, food selection and weight control during the various life stages from prenatal to adult. Student food intake is evaluated in several ways including computer diet analysis. This course is intended for non-health science majors.

NF 20 — Principles of Foods with Lab **3 Units**
(CAN FCS 8) Degree Appropriate, CSU
36 hours of lecture.
54 hours of lab.

Introduction to basic food science principles and food preparation procedures with emphasis on ingredient functions and interaction; food preparation techniques and skills; sensory evaluation standards; food safety and sanitation; food preparation equipment and utensils; storage standards; and nutrient retention.

NF 25 — Essentials of Nutrition **3 Units**
(CAN FCS 2) Degree Appropriate, CSU, UC
54 hours of lecture.

Prerequisite: Eligibility for ENGL 68

Scientific concepts of nutrition related to the function of nutrients in basic life processes with emphasis on current health issues; individual needs; functions and sources of nutrients; scientific method to analysis and evaluation of, nutrition information; dietary guidelines and current nutrition recommendations; digestion, absorption, and metabolism; health, fitness and disease; nutrition in the life span.

NF 25H — Essentials of Nutrition – Honors **3 Units**
(CAN FCS 2) Degree Appropriate, CSU, UC
54 hours of lecture.

Prerequisite: Acceptance into the Honors Program

Scientific concepts of nutrition related to the function of nutrients in basic life processes with emphasis on: current health issues; individual needs; functions and sources of nutrients; scientific method to analysis and evaluation of nutrition information; dietary guidelines and current nutrition recommendations digestion, absorption, and metabolism; health, fitness, and disease; nutrition in the life span. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both NF 25 and NF 25H.

NF 28 — Cultural and Ethnic Foods **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
Regional, ethnic, cultural, religious, historical and social influences on food patterns and cuisines. Core components: specialized equipment and utensils related to cultures; traditional foods of selected cultures; geographic factors in food availability; global food issues; sanitation and safety practices.

NF 30 — Food Science Technologies **3 Units**
54 hours of lecture. Degree Appropriate, CSU

Advisory: Eligibility for ENGL 68

Exploration of food chemistry, food processing and technology and how it affects the color, flavor, texture, aroma and quality of foods. Core components: government regulation of processing and labeling; sensory evaluation; scientific research methods; function of water in foods; pH and acidity; food processing technologies; nutritional labeling; packaging; dispersion systems; enzyme reactions; food additives; composition and properties of food.

NF 61 — Creative Foods **3 Units**
36 hours of lecture. Degree Appropriate
72 hours of lab.

Advisory: NF 20 or food preparation experience

Provides student the skills necessary for more advanced methods of food preparation. Topics include garde manger, baking and pastry, and international cuisine, techniques of healthy cooking, and vegetarian cuisine with emphasis placed on knife skills, garnishing, plate presentation and creative decorating.

NF 62 — Meal Management **3 Units**
Spring Semester Degree Appropriate, CSU
36 hours of lecture.
54 hours of lab.

Develops management skills related to daily food preparation, emphasizing planning, preparing and serving adequate and attractive meals.

NF 81 — Cooking for Your Heart and Health **1 Unit**
Non-Degree Credit
(May be taken for option of letter grade or Credit/No Credit.)

12 hours of lecture.

12 hours of lab.

Prerequisite: Eligibility for ENGL 68

Skills in healthful food preparation emphasizing foods low in fat, cholesterol and sodium, and high in fiber and nutrients.

NF 82 — Vegetarian Cuisine **1 Unit**
Non-Degree Credit
(May be taken for option of letter grade or Credit/No Credit.)

12 hours of lecture.

12 hours of lab.

Investigates nutritional issues related to vegetarian eating practices. Includes laboratory experience in preparation of vegetarian foods and meals.

OCEANOGRAPHY

OCEA 10 — Introduction to Oceanography **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC

An introduction to the ocean environment including the geologic, chemical, physical, and ecological aspects of the field. Topics include plate tectonics, currents, waves, tides, shores and human impact on the oceans. Field trips included.

OCEA 10H — Introduction to Oceanography – Honors **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: Acceptance into the Honors Program

An honors course designed to provide an enriched experience for accelerated students that 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.

Course Descriptions

OCEA 10L — Introduction to Oceanography Laboratory 1 Unit
 54 hours of lab. Degree Appropriate, CSU, UC
Corequisite: OCEA 10 or OCEA 10H (May have been taken previously)
 Laboratory applications and problem-solving in oceanography, including related aspects of geology, meteorology, and marine biology. Recommended for students needing a lab to transfer to a 4-year college/university.

PHILOSOPHY

PHIL 3 — Logic in Practice 3 Units
 (CAN PHIL 6) Degree Appropriate, CSU, UC
 54 hours of lecture.
Prerequisite: Eligibility for ENGL 68
 The analysis of language as an instrument of sound thinking in morals, politics and everyday life. Assists students to analyze an argument, avoid faulty conclusions in reasoning, understand levels of meaning and kinds of arguments, avoid verbal pitfalls, understand the steps of scientific methods and identify value assumptions.

PHIL 3H — Logic in Practice – Honors 3 Units
 54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: Acceptance into the Honors Program
 The analysis of language as an instrument of sound thinking in morals, politics and everyday life. Assists students to analyze an argument, avoid faulty conclusions in reasoning, understand levels of meaning and kinds of arguments, avoid verbal pitfalls, understand the steps of scientific methods and identify value assumptions. An honors course designed to provide an enriched experience. Students may not receive credit for both PHIL 3 and PHIL 3H.

PHIL 5 — Introduction to Philosophy 3 Units
 (CAN PHIL 2) Degree Appropriate, CSU, UC
 54 hours of lecture.
Prerequisite: Eligibility for ENGL 68
 An exploration of basic issues in ethics, social philosophy, metaphysics, theories of knowledge and contemporary philosophies of life.

PHIL 5H — Introduction to Philosophy – Honors 3 Units
 (CAN PHIL 2) Degree Appropriate, CSU, UC
 54 hours of lecture.
Prerequisite: Acceptance into the Honors Program
 An exploration of basic issues in ethics, social philosophy, metaphysics, theories of knowledge and contemporary philosophies of life. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both PHIL 5 and PHIL 5H.

PHIL 8 — Critical Thinking 3 Units
 54 hours of lecture. Degree Appropriate, CSU, UC
 The effective use of critical thinking in contemporary living, including recognizing faulty arguments, the usefulness of validity and truth, identifying and avoiding common fallacies in thinking.

PHIL 9 — Critical Thinking and Logical Writing 3 Units
 54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: ENGL 1A
 The function and use of formal and informal logic, argument, critical evaluation, and language in written composition.

PHIL 12 — Ethics 3 Units
 (CAN PHIL 4) Degree Appropriate, CSU, UC
 54 hours of lecture.
Prerequisite: Eligibility for ENGL 1A
 A critical analysis of empirical and normative factors involved in choice, including an examination of major ethical theories and their application to the study of moral problems.

PHIL 12H — Ethics – Honors 3 Units
 (CAN PHIL 4) Degree Appropriate, CSU, UC
 54 hours of lecture.
Prerequisite: Acceptance into the Honors Program
 Critical analysis of empirical and normative factors involved in choice, including an examination of major ethical theories and their application to the study of moral problems. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both PHIL 12 and PHIL 12H.

PHIL 15 — Major World Religions 3 Units
 54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: Eligibility for ENGL 68
 Examines the salient features of the world's major and enduring religions. Religion is approached as the expression of one's ultimate concern as a means of understanding the historic and ideological foundations and aspirations of the peoples of the world. The following (or more) religions are presented and examined both appreciatively and critically: Hinduism, Buddhism, Taoism, Confucianism, Islam, Judaism, and Christianity.

PHIL 15H — Major World Religions – Honors 3 Units
 54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: Acceptance into the Honors Program
 Examines the salient features of the world's major and enduring religions. Religion is approached as the expression of one's ultimate concern as a means of understanding the historic and ideological foundations and aspirations of the peoples of the world. The following religions are presented and examined both appreciatively and critically: Hinduism, Buddhism, Taoism, Confucianism, Shinto, Judaism, Christianity, Islam. An honors course designed to provide an enriched experience. Students may not receive credit for both PHIL 15 and PHIL 15H.

PHIL 20A — History of Western Philosophy 3 Units
 54 hours of lecture. Degree Appropriate, CSU, UC
 Examines the major western philosophers and philosophical ideas from pre-Socratic times to the Renaissance.

PHIL 20B — History of Western Philosophy 3 Units
 54 hours of lecture. Degree Appropriate, CSU, UC
 Examines the major western philosophy and philosophical ideas from the Renaissance to the twentieth century.

PHOTOGRAPHICS

PHOT 1 — Laboratory Studies: Black and White Photography 1 Unit
 (May be taken three times for credit.) Non-Degree Credit
 (May be taken for Credit/No Credit only.)
 54 hours of lab.
Corequisite: PHOT 10 (May have been taken previously)
 Extended black and white laboratory experiences to supplement those available in the regular program. Provides students the opportunity to pursue more advanced projects and experiments. Students who repeat this course will improve skills through further instruction and practice.

PHOT 2 — Laboratory Studies: Color Photography 1 Unit
 (May be taken three times for credit.) Non-Degree Credit
 (May be taken for Credit/No Credit only.)
 54 hours of lab.
Corequisite: PHOT 20 (May have been taken previously)
 Extended color laboratory experiences to supplement those available in the regular program. Provides students the opportunity to pursue more advanced projects and experiments. Students who repeat this course will improve skills through further instruction and practice.

PHOT 4 — Digital Cameras and Composition 1 Unit
 Non-Degree Credit
 (May be taken for option of letter grade or Credit/No Credit.)
 18 hours of lecture.
 Use of digital cameras, lenses, filters, and exposure to compose quality photographs. Shooting assignments are given for analysis in class. Camera will be required after the second week.

PHOT 10 — Basic Digital and Film Photography 3 Units
 36 hours of lecture. Degree Appropriate, CSU, UC
 54 hours of 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 — Advanced Professional Photography 4 Units
 36 hours of lecture. Degree Appropriate
 108 hours of lab.
Prerequisite: PHOT 10
Advisory: ARTD 15A
 Exploration of current professional techniques. Includes studio and field assignments related to problems encountered in advanced photography. Topics include but are not limited to: medium and large format cameras, studio product and portraiture, strobe and tungsten lighting, and computer basics for professional photographers.

PHOT 12 — Photographic Alternatives **3 Units**
36 hours of lecture. Degree Appropriate, CSU, UC
54 hours of lab.

Prerequisite: PHOT 10

Explores the use of continuous tone and alternative black and white techniques and processes. Emphasis will be on solving photographic problems through the use of current techniques such as montage printing, Polaroid and xerographic applications, hand coloring, and emulsion coating (cyanotype, Luminous/LiquidLight) as well as other special techniques.

PHOT 15 — History of Photography **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC

Survey of the history of photography from circa 1839 to the present. An introduction to concepts of photographic representation and their impact on society.

PHOT 16 — Fashion Photography **3 Units**
36 hours of lecture. Degree Appropriate

54 hours of lab.

Prerequisite: PHOT 11

Illustrative, editorial and advertising fashion photography. Studio and location production in both black and white and color are emphasized. Aspects of business operation and working with clients are explored.

PHOT 17 — Photocommunication **3 Units**
36 hours of lecture. Degree Appropriate

72 hours of lab.

Prerequisite: PHOT 10

Explores the application of the photosensitive materials, photochemicals and optics. The emphasis will be on the aesthetic and expressive uses to which these materials lend themselves. The student is expected to supply his/her own adjustable camera.

PHOT 18 — Portraiture and Wedding Photography **3 Units**
36 hours of lecture. Degree Appropriate

54 hours of lab.

Techniques and photographic procedures for taking informal, formal, environmental and group portraits. In depth study and practice in professional wedding photography.

PHOT 20 — Color Photography **3 Units**
36 hours of lecture. Degree Appropriate

54 hours of lab.

Prerequisite: PHOT 10

An introduction to current methods of producing color media, color negatives, positive transparencies, and outputting color prints.

PHOT 21 — Exploring Color Photography **3 Units**
36 hours of lecture. Degree Appropriate

54 hours of lab.

Prerequisite: PHOT 20

Explores the application of color processes as they relate to commercial and artistic styles. Emphasis is on innovative use of color and contemporary techniques. Includes media manipulation and unique processing, coloring negatives, 8x10 Polaroid, digital imagery, specialized lighting, set building, and quality control.

PHOT 28 — Photography Portfolio Development **2 Units**
18 hours of lecture. Degree Appropriate

54 hours of lab.

Prerequisite: Minimum 12 units of photography at Mt. San Antonio College or equivalent preparation

Development of photography portfolio either for job application or gallery exhibition purposes.

PHOT 30 — Commercial and Illustrative Photography **3 Units**
Fall Semester Degree Appropriate

36 hours of lecture.

54 hours of lab.

Prerequisite: PHOT 11, PHOT 20

Application of photographic principles to commercial and illustrative photography. Practical experience in studio product photography, illustration, fashion, and architectural photography. Areas of promotion and pricing will be covered. Both B & W and color media will be used.

PHOT 99 — Special Projects in Photography **2 Units**
(May be taken four times for credit.) Degree Appropriate

36 hours of lecture.

In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students must have an instructor's authorization before enrolling in this course. Students repeating this course will make individual contracts of a more advanced nature with the instructor to insure that proficiencies are enhanced.

PHYSICAL EDUCATION: ADAPTIVE

PE-L 2 — Physical Fitness for the Physically Limited **1 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU, UC

(May be taken for option of letter grade or Credit/No Credit.)

54 hours of activity.

A modified muscular conditioning program using machines and free weights specifically designed to assist students with a physical challenge. Students who repeat this course will improve daily living skills through further instruction and practice.

PE-L 2-2 — Physical Fitness for the Physically Limited **.5 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU, UC

(May be taken for option of letter grade or Credit/No Credit.)

36 hours of activity.

A modified muscular conditioning program using machines and free weights specifically designed to assist students with a physical challenge. Students who repeat this course will improve daily living skills through further instruction and practice.

PE-L 4 — Adaptive Aquatics **1 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU, UC

(May be taken for option of letter grade or Credit/No Credit.)

54 hours of activity.

Designed to assist students with a disability in developing swimming skills as well as provide hydrotherapy. Students who repeat this course will improve skills through further instruction and practice.

PE-L 10 — Wheelchair Sports **1 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU, UC

(May be taken for option of letter grade or Credit/No Credit.)

54 hours of activity.

Individual sports technique enhancement. Incorporate the use of a wheelchair in sports activities. Introduction to basic rules, skills, conditioning and strategies of the sport. Students who repeat this course will improve skills through further instruction and practice.

PE-L 14 — Activity Programs for the Physically Limited **1 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU, UC

(May be taken for option of letter grade or Credit/No Credit.)

54 hours of activity.

Designed for challenge students who require special assistance or equipment to participate in leisure activities. Course content will vary each semester in order to meet current students' needs. Students who repeat this course will improve skills through further instruction and practice.

PE-L 14-2 — Activity Programs for the Physically Limited **.5 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU, UC

(May be taken for option of letter grade or Credit/No Credit.)

36 hours of activity.

Designed for challenge students who require special assistance or equipment to participate in leisure activities. Course content will vary each semester in order to meet current students' needs. Students who repeat this course will improve skills through further instruction and practice.

PE-L 18 — Weight Training for the Physically Limited **1 Unit**
(May be taken four times for credit.) Degree Appropriate, CSU, UC

(May be taken for option of letter grade or Credit/No Credit.)

54 hours of activity.

Designed to assist students with a physical limitation develop strength, flexibility and endurance through weight training. Students are introduced to basic skills and strategies of the health-related physical fitness. Students who repeat this course will improve skills through further instruction and practice.

Course Descriptions

PE-L 18-2 — Weight Training for the Physically Limited .5 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Designed to assist students with a physical limitation develop strength, flexibility and endurance through weight training. Students are introduced to basic skills and strategies of the health-related physical fitness. Students who repeat this course will improve skills through further instruction and practice.

PHYSICAL EDUCATION: AQUATICS

PE-A 4 — Lifeguard Training 1 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
Prerequisite: 15 years of age or older, demonstrate ability to swim 500 yards using crawl, breaststroke, elementary backstroke, and sidestroke; surface dive to 9 feet and bring a ten pound brick to surface; swim under water 15 yards; tread water for two minutes continuously, legs only

Meets American Red Cross requirements for lifeguard training. To receive certification, students must pass the written and practical skills test with an 80% or better. Students who meet all qualifications will receive the American Red Cross Lifeguard Training, C.P.R. for the Professional Rescuer and First Aid Certificates. The objective for students who repeat this course is to recertify and improve rescue techniques through supervised practice and instruction.

PE-A 8A — Swimming – Beginning 1 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Designed to teach basic swimming strokes and aquatic skills to individuals with little or no swimming ability. Students who repeat this course will improve skills through further instruction and practice.

PE-A 8A-2 — Swimming – Beginning .5 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Designed to teach basic swimming strokes and aquatic skills to individuals with little or no swimming ability. Students who repeat this course will improve skills through further instruction and practice.

PE-A 8B — Swimming – Intermediate 1 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Designed to improve competence in swimming ability for individuals who have had instruction in all of the basic strokes and can swim in deep water. Students who repeat this course will improve skills through further instruction and practice.

PE-A 8B-2 — Swimming – Intermediate .5 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Designed to improve competence in swimming ability for individuals who have had instruction in all of the basic strokes and can swim in deep water. Students who repeat this course will improve skills through further instruction and practice.

PE-A 8C — Swimming – Advanced 1 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
Prerequisite: Demonstrate proficiency equivalent to Red Cross Swimming Test
 Designed to offer aquatic techniques of an advanced level and to refine the skill of the competent swimmer. Students who repeat this course will improve skills through further instruction and practice.

PE-A 8C-2 — Swimming – Advanced .5 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
Prerequisite: Demonstrate proficiency equivalent to Red Cross Swimming Test
 Designed to offer aquatic techniques of an advanced level and to refine the skill of the competent swimmer. Students who repeat this course will improve skills through further instruction and practice.

PE-A 14 — Water Polo 1 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Offers fundamental water polo skills including conditioning, drills, and game situations. Students who repeat this course will improve skills through further instruction and practice.

PE-A 14-2 — Water Polo .5 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Offers fundamental water polo skills including conditioning, drills, and game situations. Students who repeat this course will improve skills through further instruction and practice.

PE-A 16 — Water Safety Instructor 2 Units
 (CAN KINE10) Degree Appropriate, CSU, UC
 (May be taken four times for credit.)
 (May be taken for option of letter grade or Credit/No Credit.)
 108 hours of activity.
Prerequisite: 1) 17 years of age or older at the start of the course; 2) Demonstrate proficiency equivalent to Level VI of the American Red Cross Learn to Swim Program; 3) Demonstrate skills on a proficiency level equal to the American Red Cross Emergency Water Safety course
 Analysis and performance of swimming skills related to safety; theory and application of methods of organizing and presenting aquatic materials. Satisfactory completion of the course may lead to the American Red Cross Water Safety Instructor's Certificate. Repeating this course will allow for renewal of certificate and improve skills through further instruction and practice.

PE-A 18 — Springboard Diving 1 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Student must possess above average diving ability or experience in tumbling or gymnastics. Individualized instruction in the fundamentals and techniques of springboard diving. Students who repeat this course will improve skills through further instruction and practice.

PE-A 18-2 — Springboard Diving .5 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Student must possess above average diving ability or experience in tumbling or gymnastics. Individualized instruction in the fundamentals and techniques of springboard diving. Students who repeat this course will improve skills through further instruction and practice.

PE-A 20 — Aquatic Fitness 1 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Student must be able to perform front crawl 50 yards. Designed to improve and maintain aquatic fitness. Emphasis on building strength, endurance and cardiovascular fitness. Students who repeat this course will improve skills through further instruction and practice.

PE-A 20-2 — Aquatic Fitness .5 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Student must be able to perform front crawl 50 yards. Designed to improve and maintain aquatic fitness. Emphasis on building strength, endurance and cardiovascular fitness. Students who repeat this course will improve skills through further instruction and practice.

PE-A 21 — Aqua Aerobics **1 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Designed to improve cardiovascular endurance, strength, agility, flexibility and general fitness through the mode of dynamic movement in the water. Appropriate for swimmers and nonswimmers. Students who repeat this course will improve skills through further instruction and practice.

PE-A 21-2 — Aqua Aerobics **.5 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Designed to improve cardiovascular endurance, strength, agility, flexibility and general fitness through the mode of dynamic movement in the water. Appropriate for swimmers and nonswimmers. Students who repeat this course will improve skills through further instruction and practice.

PE-A 24 — Aquatic Off-Season Conditioning **1 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 A conditioning course for the serious swimmer to receive individualized training in order to improve competitive performance. Students who repeat this course will improve skills through further instruction and practice.

PE-A 24-2 — Aquatic Off-Season Conditioning **.5 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 A conditioning course for the serious swimmer to receive individualized training in order to improve competitive performance. Students who repeat this course will improve skills through further instruction and practice.

PHYSICAL EDUCATION: ATHLETICS

PE-X 6 — Baseball – Men **2 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 180 hours of activity.
 Enrollment is limited to team candidates and includes a minimum of 10 hours per week practice and intercollegiate competition. The objective of students who repeat this course is further improvement through practice and instruction.

PE-X 8A — Basketball – Men **1 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 90 hours of activity.
 Designed for Men's Intercollegiate Basketball Team candidates and provides instruction in the components of training and conditioning related to the sport of basketball. Students who repeat this course will improve skills through further instruction and practice.

PE-X 8B — Basketball – Men **1 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 90 hours of activity.
Advisory: PE-X 8A
 Enrollment is limited to team candidates and includes a minimum of 10 hours per week practice and intercollegiate competition. Advanced skills and strategies will be presented. Students who repeat this course will improve conditioning through continued instruction and participation.

PE-X 10A — Basketball – Women **1 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 90 hours of activity.
 Designed for Women's Intercollegiate Basketball team candidates and provides instruction in the components of training and conditioning related to the sport of basketball. Students who repeat this course will improve skills through further instruction and practice.

PE-X 10B — Basketball – Women **1 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 90 hours of activity.
Advisory: PE-X 10A
 Enrollment is limited to team candidates and includes a minimum of 10 hours per week practice and intercollegiate competition, advanced skills and strategies will be presented. Students who repeat this course will improve conditioning through continued instruction and participation.

PE-X 11 — Cross Country – Men **2 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 180 hours of activity.
 Designed for Men's Intercollegiate Cross Country team candidates and provides instruction in the components of training and conditioning related to the sport of cross country. Students who repeat this course will improve skills through further instruction and practice.

PE-X 12 — Cross Country – Women **2 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 180 hours of activity.

Designed for Women's Intercollegiate Cross Country team candidates and provides instruction in the components of training and conditioning related to the sport of cross country. Students who repeat this course will improve skills through further instruction and practice.

PE-X 16 — Football – Men **2 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 180 hours of activity.
 Designed for Men's Intercollegiate Football team candidates and provides instruction in the components of training and conditioning related to the sport of football. Students who repeat this course will improve skills through further instruction and practice.

PE-X 18 — Golf – Men **2 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 180 hours of activity.
 Designed for Men's Intercollegiate Golf Team candidates and provides instruction in the components and training related to the sport of golf. Classes will be held off campus and require some traveling. Students who repeat this course will improve skills through further instruction and practice. Students must have their own golf clubs.

PE-X 19 — Golf – Women **2 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 180 hours of activity.
 Designed for Women's Intercollegiate Golf Team candidates and provides instruction in the components and training related to the sport of golf. Classes will be held off campus and require some traveling. Students who repeat this course will improve skills through further instruction and practice. Students must have their own golf clubs.

PE-X 24 — Soccer – Men **2 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 180 hours of activity.
 Designed for Men's Intercollegiate Soccer Team candidates and provides instruction in the components of training and conditioning related to the sport of soccer. Students who repeat this course will improve skills through further instruction and practice.

PE-X 25 — Soccer – Women **2 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 180 hours of activity.
 Designed for Women's Intercollegiate Soccer Team candidates and provides instruction in the components of training and conditioning related to the sport of soccer. Students who repeat this course will improve skills through further instruction and practice.

Course Descriptions

<p>PE-X 26 — Softball – Women 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 180 hours of activity. Designed for Women's Softball Team candidates and provides instruction in the components of training and conditioning related to the sport of softball. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-X 42 — Track and Field – Women 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 180 hours of activity. Designed for students wishing to compete and/or train in intercollegiate track and field. Students will participate in a minimum of 10 hours per week at practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-X 50 — Wrestling – Men 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 180 hours of activity. Enrollment is for Men's Intercollegiate Wrestling Team candidates and provides instruction in the components and conditioning related to the sport of wrestling. Students who repeat this course will improve through further instruction and practice.</p>
<p>PE-X 28 — Swimming – Men 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 180 hours of activity. Designed for Men's Intercollegiate Swim Team candidates and provides instruction in the components of training and conditioning related to the sport of swimming. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-X 44 — Volleyball – Men 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 180 hours of activity. Enrollment is limited to team candidates and includes a minimum of 10 hours per week of practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-X 70 — Pep Squad 2 Units (May be taken four times for credit.) Degree Appropriate (May be taken for option of letter grade or Credit/No Credit.) 180 hours of activity. Provides training and experience for members of pep squads or rally units who are directly supportive of Mt. SAC activities. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-X 30 — Swimming – Women 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 180 hours of activity. Designed for Women's Intercollegiate Swim Team candidates and provides instruction in the components of training and conditioning related to the sport of swimming. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-X 46 — Volleyball – Women 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 180 hours of activity. <i>Advisory: PE 75</i> Enrollment is limited to team candidates and includes a minimum of 10 hours per week of practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-X 99 — Off-Season Athletics 2 Units (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 180 hours of activity. Off-season intercollegiate athletics. Designed for athletic team candidates and includes practice, conditioning and game play. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-X 32 — Tennis – Men 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 180 hours of activity. Designed for Men's Intercollegiate Tennis Team candidates and provides instruction in the components and training related to the sport of tennis. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-X 48 — Water Polo – Men 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 180 hours of activity. Enrollment is limited to team candidates and includes a minimum of 10 hours per week of practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-X 99-2 — Off-Season Athletics .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Off-season intercollegiate athletics. Designed for athletic team candidates and includes practice, conditioning and game play. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-X 34 — Tennis – Women 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 180 hours of activity. Designed for Women's Intercollegiate Tennis Team candidates and provides instruction in the components and training related to the sport of tennis. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-X 49 — Water Polo – Women 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 180 hours of activity. Enrollment is limited to team candidates and includes a minimum of 10 hours per week of practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-X 99-4 — Off-Season Athletics 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 72 hours of activity. Off-season intercollegiate athletics. Designed for athletic team candidates and includes practice, conditioning and game play. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-X 38 — Track and Field – Men 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 180 hours of activity. Designed for students wishing to compete and/or train in intercollegiate track and field. Students will participate in a minimum of 10 hours per week at practice and intercollegiate competition. Students who repeat this course will improve skills through further instruction and practice.</p>		<p>PE-X 99-6 — Off-Season Athletics 1.5 Units (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 108 hours of activity. Off-season intercollegiate athletics. Designed for athletic team candidates and includes practice, conditioning and game play. Students who repeat this course will improve skills through further instruction and practice.</p>

PHYSICAL EDUCATION: FITNESS	
<p>PE-F 2A — Body Building – Beginning 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Basic fundamentals of strength development and physical conditioning. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-F 6A — Physical Fitness – Beginning 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Presents beginning components of physical fitness. Students identify individual fitness level and participate in activities designed to improve overall fitness. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-F 2A-2 — Body Building – Beginning .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Basic fundamentals of strength development and physical conditioning. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-F 6A-2 — Physical Fitness – Beginning .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Presents beginning components of physical fitness. Students identify individual fitness level and participate in activities designed to improve overall fitness. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-F 2B — Body Building – Advanced 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Advanced fundamentals of strength development and physical conditioning. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-F 6B — Physical Fitness – Intermediate 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Develops components of physical fitness. Students analyze individual fitness level and participate in activities designed to improve overall fitness. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-F 2B-2 — Body Building – Advanced .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Advanced fundamentals of strength development and physical conditioning. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-F 6B-2 — Physical Fitness – Intermediate .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Develops components of physical fitness. Students analyze individual fitness level and participate in activities designed to improve overall fitness. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-F 4 — Cardiovascular Conditioning 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Designed to improve fitness levels through cardiovascular activities. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-F 6C — Physical Fitness – Advanced 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Determines advanced components of physical fitness. Students integrate individual fitness level and participate in activities designed to improve overall fitness. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-F 4-2 — Cardiovascular Conditioning .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Designed to improve fitness levels through cardiovascular activities. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-F 6C-2 — Physical Fitness – Advanced .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Determines advanced components of physical fitness. Students integrate individual fitness level and participate in activities designed to improve overall fitness. Students who repeat this course will improve skills through further instruction and practice.</p>
	<p>PE-F 9 — Conditioning for Sports 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. A conditioning course for athletes to develop fundamental skills and techniques for intercollegiate athletic competition. Students who repeat this course will improve skills through further instruction and practice.</p>
	<p>PE-F 9-2 — Conditioning for Sports .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. A conditioning course for athletes to develop fundamental skills and techniques for intercollegiate athletic competition. Students who repeat this course will improve skills through further instruction and practice.</p>
	<p>PE-F 10 — Weight Training 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. A muscular conditioning program using machines and free weights. Students who repeat this course will improve skills through further instruction and practice.</p>
	<p>PE-F 10-2 — Weight Training .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. A muscular conditioning program using machines and free weights. Students who repeat this course will improve skills through further instruction and practice.</p>
	<p>PE-F 12 — Fitness and Body Conditioning 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Circuit training, aerobic activity and overview of health concepts. Emphasis on nutrition, weight management, stress reduction and the benefits of exercise on overall health. Students who repeat this course will improve skills through further instruction and practice.</p>
	<p>PE-F 12-2 — Fitness and Body Conditioning .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Circuit training, aerobic activity and overview of health concepts. Emphasis on nutrition, weight management, stress reduction and the benefits of exercise on overall health. Students who repeat this course will improve skills through further instruction and practice.</p>

Course Descriptions

PE-F 13 — Exercise Dynamics **2 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 108 hours of activity.
 Increased frequency and duration of circuit training and aerobic activity; continued overview of health concepts; heightened emphasis on nutrition, weight management, stress reduction and the benefit of exercise on overall health. Students who repeat this course will improve skills through further instruction and practice.

PE-F 15 — Off-Season Conditioning **1 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 72 hours of activity.
 Off-season conditioning for the competitive athlete. Provides instruction in the components of training and conditioning related to the sport. Students who repeat this course will improve skills through further instruction and practice.

PE-F 15-2 — Off-Season Conditioning **.5 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Off-season conditioning for the competitive athlete. Provides instruction in the components of training and conditioning related to the sport. Students who repeat this course will improve skills through further instruction and practice.

PE-F 17 — Fitness Walking **1 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 An overall wellness program through fitness walking, a low-impact aerobic activity. Consists of participation in walking courses around Mt. San Antonio College and the surrounding community. Also includes nutrition, personal skill development, weight management, cardiovascular endurance, stress management and goal setting. Students who repeat this course will improve skills through further instruction and practice.

PE-F 17-2 — Fitness Walking **.5 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 An overall wellness program through fitness walking, a low-impact aerobic activity. Consists of participation in walking courses around Mt. San Antonio College and the surrounding community. Also includes nutrition, personal skill development, weight management, cardiovascular endurance, stress management and goal setting. Students who repeat this course will improve skills through further instruction and practice.

PE-F 18 — Fitness Fundamentals **2 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 108 hours of activity.
 Provides the foundations in specific areas of fitness to set-up, maintain and organize a personalized fitness program. Presents in-depth coverage of each area of fitness in managing and promoting an individualized fitness regime. Students who repeat this course will improve skills through further instruction and practice.

PE-F 19 — Strength Training **2 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 108 hours of activity.
 Designed for students concentrating on strength development through various types of exercise. Students who repeat this course will improve skills through further instruction and practice.

PE-F 22 — Total Fitness – Beginning **2 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 108 hours of activity.
 Fitness training with increased frequency and duration. Includes: nutrition, exercise concepts, stress management, cardiovascular conditioning, muscle strength and flexibility training. Students who repeat this course will improve skills through further instruction and practice.

PE-F 30 — Baseline Fitness Assessment **.25 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU
 (May be taken for option of letter grade or Credit/No Credit.)
 18 hours of activity.
 Baseline fitness assessment of body composition, strength, strength endurance, cardiovascular endurance and flexibility. Includes interpretation of assessment results and guidelines for a personal exercise program. Students who repeat this course will improve skills through further instruction and practice.

PE-F 31 — Fitness Testing **1 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Personal fitness assessment of body composition, strength, strength endurance, cardiovascular endurance and flexibility. Includes nutrition, fitness components, stress management, interpretation of assessment results, and exercise guidelines. Students who repeat this course will improve skills through further instruction and practice.

PE-F 34 — Cardiorespiratory Training **1 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.

Individualized exercise programs designed to improve cardiorespiratory performance. Students who repeat this course will improve skills through further instruction and practice.

PE-F 34-2 — Cardiorespiratory Training **.5 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Individualized exercise programs designed to improve cardiorespiratory performance. Students who repeat this course will improve skills through further instruction and practice.

PE-F 35 — Cardiorespiratory Training **2 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU
 (May be taken for option of letter grade or Credit/No Credit.)
 108 hours of activity.
 Individualized exercise programs designed with increased duration and frequency to improve cardiorespiratory performance. Students who repeat this course will improve skills through further instruction and practice.

PE-F 36 — Circuit Training **1 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Muscular strength and endurance exercise on circuit training equipment. Students who repeat this course will improve skills through further instruction and practice.

PE-F 36-2 — Circuit Training **.5 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Muscular strength and endurance exercise on circuit training equipment. Students who repeat this course will improve skills through further instruction and practice.

PE-F 37 — Circuit Training **2 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 108 hours of activity.
 Muscular strength and endurance exercise on circuit training equipment with increased frequency and duration. Students who repeat this course will improve skills through further instruction and practice.

PE-F 38 — Aerobics **1 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Group aerobic exercise to improve cardio respiratory efficiency. Students who repeat this course will improve skills through further instruction and practice.

<p>PE-F 38-2 — Aerobics .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Group aerobic exercise to improve cardio respiratory efficiency. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>Prepare the Basic Fire Academy student for the physical demands of the fire service. Through a supervised individualized training program, the student will acquire cardiovascular endurance, flexibility and strength. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 4B-2 — Badminton – Intermediate .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Intermediate badminton fundamentals and techniques, including competitive strategies. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-F 39 — Aerobics 2 Units (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 108 hours of activity. Group aerobic exercise with increased frequency and duration to improve respiratory efficiency. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-F 59 — Firefighter Physical Ability Test .1 Unit (May be taken four times for credit.) Non-Degree Credit (May be taken for Credit/No Credit only.) 2 hours of lecture. 2 hours of activity. Administration of physical ability test examination. Includes nutrition, safety, body mechanics, exercise guidelines and execution of fire-related tasks. Successful completion of this course is required by various fire agencies for employment. Students must obtain test packet from website: Firepat.mtsac.edu prior to enrolling. Repeating this course will allow for renewal of certificate and improvement of technique through further instruction and practice.</p>	<p>PE-I 4C — Badminton – Advanced 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Designed for the advanced badminton player. Includes advanced competition strategies and techniques. Students who repeat this course will receive advanced instruction to prepare for competitive situations.</p>
<p>PE-F 50 — Physical Skills Preparation for Administration of Justice and Fire Technology 2 Units (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 108 hours of activity. Through supervised and individualized training programs, the student will develop the necessary conditioning levels to pass entrance examinations in Administration of Justice and Fire Technology fields. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PHYSICAL EDUCATION: INDIVIDUAL</p>	
<p>PE-F 51 — Agility Testing Preparation for Administration of Justice and Fire Technology 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 72 hours of activity. A training program directed toward simulated physical agility testing approximating that required by various law enforcement and fire agencies. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 1 — Rock Climbing 1 Unit (May be taken four times for credit.) Degree Appropriate (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Instruction in rock climbing. Includes preparation, equipment, techniques and strategies of rock climbing. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 4C-2 — Badminton – Advanced .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Designed for the advanced badminton player. Includes advanced competition strategies and techniques. Students who repeat this course will receive advanced instruction to prepare for competitive situations.</p>
<p>PE-F 52 — Fitness and Conditioning for Administration of Justice, Fire Technology, and Forestry 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 72 hours of activity. A conditioning program to maintain strength, agility, cardiovascular fitness and flexibility necessary to perform the tasks required of personnel in fields of law enforcement, fire science and forestry. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 4A — Badminton – Beginning 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Basic badminton fundamentals and technique. Includes care of equipment; singles and doubles strategies. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 18A — Golf – Beginning 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Basic fundamentals of golf. Emphasis on technique, strategy, and rules. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-F 53 — Physical Training for the Basic Fire Academy 2.5 Units (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 68 hours of lecture. 68 hours of activity.</p>	<p>PE-I 4A-2 — Badminton – Beginning .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Basic badminton fundamentals and technique. Includes care of equipment; singles and doubles strategies. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 18A-2 — Golf – Beginning .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Basic fundamentals of golf. Emphasis on technique, strategy, and rules. Students who repeat this course will improve skills through further instruction and practice.</p>
	<p>PE-I 4B — Badminton – Intermediate 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Intermediate badminton fundamentals and techniques, including competitive strategies. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 18B — Golf – Intermediate 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Instruction for the golfer with previous golf experience. Includes putting, game management, club selection, and principles of the swing. Students must have their own golf clubs. Classes will be held at sites both on and off the Mt. SAC campus. Students who repeat this course will improve skills through further instruction and practice.</p>

Course Descriptions

<p>PE-I 18B-2 — Golf – Intermediate .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Instruction for the golfer with previous golf experience. Includes putting, game management, club selection, and principles of the swing. Students must have their own golf clubs. Classes will be held at sites both on and off the Mt. SAC campus. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 31A — JiuJitsu – Beginning 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Fundamentals of Brazilian JiuJitsu. Basic positions, breakfalls, training techniques, strategy, finishing holds, competition, history and philosophy. Students who repeat this course will improve skills through further instruction and practice. Students are required to provide their own Judo/JiuJitsu gi uniform.</p>	<p>PE-I 35 — Karate 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Fundamentals of traditional karate. Includes form, technique, history and philosophy. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-I 18C — Golf – Advanced 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Offers instruction and practice to the experienced golfer. Emphasis on golf swing analysis. Classes will be held at sites both on and off the Mt. SAC campus. Students must have their own golf clubs. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 31A-2 — JiuJitsu – Beginning .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Fundamentals of Brazilian JiuJitsu. Basic positions, breakfalls, training techniques, strategy, finishing holds, competition, history and philosophy. Students who repeat this course will improve skills through further instruction and practice. Students are required to provide their own Judo/JiuJitsu gi uniform.</p>	<p>PE-I 35-2 — Karate .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Fundamentals of traditional karate. Includes form, technique, history and philosophy. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-I 28 — Racquetball 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Racquetball fundamentals, skills and game play. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 33 — Kickboxing 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Presents the martial sport of kickboxing. Includes basic techniques for offense and defense, cardiovascular endurance, strategy and training modes. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 37A — Tai Chi Chuan – Beginning 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Fundamentals of Tai Chi Chuan as a martial art exercise for health and fitness, meditation, relaxation and self defense. Basic therapeutic exercises in the Tai Chi Chuan format will be presented. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-I 29 — Self Defense/Martial Arts 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Basic concepts of self defense and martial arts. Covers technique in three ranges of combat: grappling, kick/punch, and weapons range. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 33-2 — Kickboxing .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Presents the martial sport of kickboxing. Includes basic techniques for offense and defense, cardiovascular endurance, strategy and training modes. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 37A-2 — Tai Chi Chuan – Beginning .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Fundamentals of Tai Chi Chuan as a martial art exercise for health and fitness, meditation, relaxation, and self defense. Basic therapeutic exercises in the Tai Chi Chuan format will be presented. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-I 29-2 — Self Defense/Martial Arts .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Basic concepts of self defense and martial arts. Covers technique in three ranges of combat: grappling, kick/punch, and weapons range. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 34 — Women's Self Defense 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Techniques for personal protection and safety with emphasis on defensive tactics for women. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 37B — Tai Chi Chuan – Intermediate 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Intermediate Tai Chi Chuan fundamentals and principles. Includes instruction in a traditional long form. Students who repeat this course will improve skills through further instruction and practice.</p>
	<p>PE-I 34-2 — Women's Self Defense .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Techniques for personal protection and safety with emphasis on defensive tactics for women. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 37B-2 — Tai Chi Chuan – Intermediate .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Intermediate Tai Chi Chuan fundamentals and principles. Includes instruction in a traditional long form. Students who repeat this course will improve skills through further instruction and practice.</p>

<p>PE-I 37C — Tai Chi Chuan – Advanced 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Instruction and practice for the experienced Tai Chi Chuan practitioner. Emphasis will be on the sword form. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 40B-2 — Tennis – Intermediate .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Intermediate tennis techniques and strategies for the individual who has previous experience and instruction in tennis. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>Wrestling skills, fundamentals and match competition. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-I 37C-2 — Tai Chi Chuan – Advanced .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Instruction and practice for the experienced Tai Chi Chuan practitioner. Emphasis will be on the sword form. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 40C — Tennis – Advanced 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Advanced tennis techniques and strategies for the experienced player. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 50A — Yoga 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Yoga instruction with major emphasis on practice of yoga asanas, proper breathing techniques and relaxation strategies. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-I 38 — Skiing Skills 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Fundamentals of Alpine skiing, from the novice to the expert. Includes the purchase, care and use of equipment, conditioning methods, mountain procedures and safety. Ski trips mandatory and are at student expense. Students who repeat this class will improve skills through further instruction and practice.</p>	<p>PE-I 40C-2 — Tennis – Advanced .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Advanced tennis techniques and strategies for the experienced player. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 50A-2 — Yoga .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Yoga instruction with major emphasis on practice of yoga asanas, proper breathing techniques and relaxation strategies. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-I 40A — Tennis – Beginning 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Beginning tennis fundamentals and techniques. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 44 — Track and Field 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Basic instruction, conditioning and training for the various track and field events. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 52 — Individual Sports 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Individual sports technique enhancement. Includes cardiorespiratory, flexibility, muscle strength and endurance training modes. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-I 40A-2 — Tennis – Beginning .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Beginning tennis fundamentals and techniques. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 44-2 — Track and Field .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Basic instruction, conditioning and training for the various track and field events. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 52-2 — Individual Sports .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity. Individual sports technique enhancement. Includes cardiorespiratory, flexibility, muscle strength and endurance training modes. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>PE-I 40B — Tennis – Intermediate 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Intermediate tennis techniques and strategies for the individual who has previous experience and instruction in tennis. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PE-I 48 — Wrestling 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Wrestling skills, fundamentals and match competition. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>PHYSICAL EDUCATION: TEAM SPORTS</p>
<p>PE-I 48-2 — Wrestling .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity.</p>	<p>PE-I 48-2 — Wrestling .5 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 36 hours of activity.</p>	<p>PE-S 2 — Basketball 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of activity. Basketball skills, fundamentals and game play. Students who repeat this course will improve skills through further instruction and practice.</p>

Course Descriptions

PE-S 2-2 — Basketball .5 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Basketball skills, fundamentals and game play. Students who repeat this course will improve skills through further instruction and practice.

PE-S 10 — Soccer 1 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Soccer skills, fundamentals and game play. Students who repeat this course will improve skills through further instruction and practice.

PE-S 10-2 — Soccer .5 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Soccer skills, fundamentals and game play. Students who repeat this course will improve skills through further instruction and practice.

PE-S 12 — Baseball 1 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Basic skills, rules and strategies for team play in baseball. Students who repeat this course will improve skills through further instruction and practice.

PE-S 12-2 — Baseball .5 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Basic skills, rules and strategies for team play in baseball. Students who repeat this course will improve skills through further instruction and practice.

PE-S 13 — Football 1 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Basic skills, rules and strategies for team play in football. Students who repeat this course will improve skills through further instruction and practice.

PE-S 13-2 — Football .5 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Basic skills, rules and strategies for team play in football. Students who repeat this course will improve skills through further instruction and practice.

PE-S 16 — Softball 1 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Basic skills, rules and strategies for team play in softball. Students who repeat this course will improve skills through further instruction and practice.

PE-S 16-2 — Softball .5 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Basic skills, rules and strategies for team play in softball. Students who repeat this course will improve skills through further instruction and practice.

PE-S 18 — Indoor Soccer 1 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Indoor soccer skills, fundamentals and game play. Students who repeat this course will improve skills through further instruction and practice.

PE-S 18-2 — Indoor Soccer .5 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Indoor soccer skills, fundamentals and game play. Students who repeat this course will improve skills through further instruction and practice.

PE-S 19 — Team Sports 1 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Instruction in the skills, techniques, and strategies of game play in one or more team sports. Students who repeat this course will improve skills through further instruction and practice.

PE-S 19-2 — Team Sports .5 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Instruction in the skills, techniques, and strategies of game play in one or more team sports. Students who repeat this course will improve skills through further instruction and practice.

PE-S 24A — Volleyball – Beginning 1 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Basic techniques and strategies of volleyball. Students who repeat this course will improve skills through further instruction and practice.

PE-S 24A-2 — Volleyball – Beginning .5 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Basic techniques and strategies of volleyball. Students who repeat this course will improve skills through further instruction and practice.

PE-S 24B — Volleyball – Intermediate 1 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Designed for individuals with previous experience in techniques and strategies of volleyball. Students who repeat this course will improve skills through further instruction and practice.

PE-S 24B-2 — Volleyball – Intermediate .5 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Designed for individuals with previous experience in techniques and strategies of volleyball. Students who repeat this course will improve skills through further instruction and practice.

PE-S 24C — Volleyball – Advanced 1 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Designed for individuals with previous experience in advanced techniques and strategies of volleyball. Students who repeat this course will improve skills through further instruction and practice.

PE-S 24C-2 — Volleyball – Advanced .5 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Designed for individuals with previous experience in advanced techniques and strategies of volleyball. Students who repeat this course will improve skills through further instruction and practice.

PE-S 35 — Roller Hockey 1 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of activity.
 Fundamentals of roller hockey will be presented. Includes basic technique, rules, strategy, and game play. Students who repeat this course will improve skills through further instruction and practice.

PE-S 35-2 — Roller Hockey .5 Unit
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of activity.
 Fundamentals of roller hockey will be presented. Includes basic technique, rules, strategy, and game play. Students who repeat this course will improve skills through further instruction and practice.

PHYSICAL EDUCATION: THEORY		
PE 1 — Camp Leadership 36 hours of lecture. A survey of camping. Includes activities, programs and leadership in organized camps.	2 Units Degree Appropriate, CSU	
PE 2 — The Recreation Program (CAN REC 4) 36 hours of lecture. Methods and materials used in planning and conducting organized recreation programs. Theory and case studies of play and recreation with special emphasis on supervised programming.	2 Units Degree Appropriate, CSU	
PE 3 — First Aid and CPR 54 hours of lecture. <i>Advisory: Eligibility for ENGL 68</i> Provides training, including laboratory experience in caring for victims of injuries, sudden illness and other medical emergencies; includes Community CPR. Students who successfully pass all requirements, will earn the appropriate American Red Cross First Aid Certificate and/or CPR Certificate.	3 Units Degree Appropriate, CSU, UC	
PE 5 — Advanced First Aid/CPR/Emergency Response 54 hours of lecture. <i>Advisory: Eligibility for ENGL 68</i> Provides training and certifications, including laboratory experience for developing the First Aid and CPR skills required by public safety personnel, athletic trainers, emergency response team members, flight attendants, coaches and nurses. Students who successfully pass all requirements will receive an American Red Cross Certificate in Emergency Response and/or CPR for the Professional Rescuer.	3 Units Degree Appropriate, CSU	
PE 10 — Fundamentals of Sports 36 hours of lecture. Instruction in the theory and technique of various selected sports: Basketball, Baseball, Cross Country, Football, Golf, Soccer, Softball, Swimming, Tennis, Track & Field, Volleyball, Water Polo and/or Wrestling.	2 Units Degree Appropriate, CSU, UC	
PE 13 — Sports Officiating 54 hours of lecture. Introduction to rules, regulations and career opportunities of various team and individual sports.	3 Units Degree Appropriate, CSU, UC	
PE 14 — Leadership in Physical Education 18 hours of lecture. Offers the opportunity to develop leadership skills through practical experience in physical education activity. Students repeating this course will receive assignments of a progressively more advanced nature resulting in increased proficiency in leadership ability.	1 Unit Degree Appropriate	
PE 15 — Administration of Fitness Programs (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. Provides leadership training and administrative skills related to fitness specialists, personal trainers and physical educators. Students will explore curriculum topics and practical skills related to careers in fitness and physical education.	2 Units Degree Appropriate	
PE 17 — Introduction to Physical Education (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. Introduction and orientation to physical education as a profession and academic discipline. Explores sub-disciplines, opportunities in the field, philosophy, scientific basis and analysis.	3 Units Degree Appropriate, CSU, UC	
PE 19 — Introduction to Care/Prevention of Activity/Sports -Related Injuries 54 hours of lecture. Instruction, including laboratory experience, in the techniques and procedures for prevention and treatment of activity and sports-related injuries. Includes the responsibilities of the athletic trainer, policies and procedures of the athletic training room and the operation of rehabilitative modalities.	3 Units Degree Appropriate, CSU, UC	
PE 20 — Recreation and Leisure Services (CAN REC 2) 54 hours of lecture. History, philosophy, theory, and organization of recreation, including various agencies providing recreation and leisure services. Emphasis upon functions, areas, facilities, clientele, and career opportunities. Field visits required.	3 Units Degree Appropriate, CSU	
PE 24 — Kinesiology (May be taken for option of letter grade or Credit/No Credit.) 36 hours of 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.	2 Units Degree Appropriate	
PE 30 — Sports Related Occupations (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. Designed to examine sports related occupations. Includes an assessment of the student's existing skills and interests.	2 Units Degree Appropriate, CSU	
PE 33 — Fitness Assessment and Healthy Lifestyles (May be taken four times for credit.) (May be taken for option of letter grade or Credit/No Credit.) 9 hours of lecture.	.5 Unit Degree Appropriate	
		An integrated approach to healthy lifestyles. Includes pre and post fitness assessments, basic nutrition analysis, lifestyle behaviors and stress management. Interpretation of results includes goal-setting principles and development of basic exercise program. Students who repeat this course will improve skills through further instruction and practice.
		PE 34 — Fitness for Living 54 hours of lecture. Survey and analysis of the components of fitness. Effects of fitness on optimal health; concepts of human movement; fitness program design; stress management; nutrition and weight control.
		PE 38 — Physiology of Exercise for Fitness 54 hours of lecture. Theory of basic physiological concepts as they pertain to exercise training and the prescription of individual fitness programs.
		PE 39 — Techniques of Fitness Testing (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. Theory and technique of performing fitness testing, assessment, evaluation, and recommendation. Includes related laboratory experience and practical applications.
		PE 40 — Techniques of Teaching Cardiovascular Exercise (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. Overview of the principles and techniques of teaching cardiovascular exercise. Includes both theory and practical instruction of cardiovascular exercise, special needs considerations, professional responsibilities and liabilities, group exercise design, treadmill, cycling and varieties of cardiovascular exercise.
		PE 41 — Techniques of Teaching Weight Training (May be taken for option of letter grade or Credit/No Credit.) 36 hours of lecture. Overview of the principles and techniques of teaching weight training. Includes muscle structure and function, training sequences, free weight and machine equipment, safety factors, including contraindications for exercise.
		PE 43 — Sports Management (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. Basic theory of sports management will be presented. Topics include sports management and organizational skills; sports marketing and fundraising; sport communication; sport finance; safety issues; economics; law and governance.

Course Descriptions

PE 44 — Theory of Coaching **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
Designated for coaches at varying levels from youth league to high school varsity. Focuses on coaching issues and problems facing the coach today and includes the philosophy, theory, and principles of developing and maintaining an athletic program.

PE 45 — Techniques of Coaching **.5 Unit**
(May be taken four times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
9 hours of lecture.
Designed for high school coaches, but is appropriate for coaches of all levels. Includes California Interscholastic Federation (CIF) regulations, Title 5 of the California Education Code, safety and liability concerns and coaching ethics.

PE 46 — Sports Safety Training **.5 Unit**
(May be taken four times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
9 hours of lecture.
Introduction to basic life support for sports professionals. Includes basic first aid & CPR and knowledge to care for athletic injuries. Students who successfully pass all requirements will earn the appropriate Red Cross First Aid ation. Repeating the course will allow for renewal of certificates and improvement in technique.

PE 47 — Psychology of Sport **3 Units**
Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
54 hours of lecture.
Principles underlying sport behavior and cognition. Includes personality types, communication, motivation, environment, group processes and enhancing performance.

PE 48 — Lifeguard Training **3 Units**
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
54 hours of lecture.
Prerequisite: Ability to swim 500 yards without stopping
American Red Cross requirements for Lifeguard Training. To receive certification, students must pass written exams with a minimum of 80% and pass all practical skills tests. Students who meet all qualifications will be certified by the American Red Cross in Lifeguard Training, First Aid and C.P.R. for the Professional Rescuer.

PE 50 — Mt. Sac Fire Academy Physical Ability Entrance Exam **.5 Unit**
Non-Degree Credit
(May be taken four times for credit.)
(May be taken for Credit/No Credit only.)
9 hours of lecture.
9 hours of activity.
Physical ability examination specifically designed for candidates seeking admission into the Mt. SAC Fire Academy. Candidates must be approved by the Fire Technology Office prior to registration. Students who repeat this course will improve proficiency and skills through continued instruction and practice.

PE 81 — Work Experience for Coaching **2 Units**
(May be taken four times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
150 hours of lab.
Provides coaches and physical education students with on-the-job experience in approved worksites related to classroom instruction. A minimum of 5 hours per week of supervised work (minimum 75 paid or 60 non-paid clock hours per semester) is required for each unit of credit. Work experience placement is not guaranteed, but assistance is provided by the Coaching Certificate faculty advisor. Students who repeat this course will improve skills through further instruction and practice.

PE 85 — Fitness Specialist Internship **1 Unit**
(May be taken four times for credit.) Degree Appropriate
(May be taken for option of letter grade or Credit/No Credit.)
75 hours of lab.
Provides fitness specialist students with actual on-the-job skill development in fitness testing, analysis and prescription. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed, but assistance is provided by the Fitness Certificate faculty advisor. Students who repeat this course will improve skills through further instruction and practice.

PE 92 — Work Experience – Athletic Training **2 Units**
(May be taken four times for credit.) Degree Appropriate
(May be taken for Credit/No Credit only.)
160 hours of lab.
Provides Athletic Trainer Aides and physical education students with actual on-the-job experience in an approved worksite related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Work experience placement is not guaranteed, but assistance is provided by the Athletic Trainer faculty and staff. Students who repeat this course will improve skills through further instruction and practice.

PHYSICAL SCIENCE

PHSC 3 — Energy Science **4 Units**
54 hours of lecture. Degree Appropriate, CSU
54 hours of lab.
Advisory: Eligibility for MATH 51, eligibility for ENGL 1A
Physical principles underlying the various forms of energy production. Examines feasibility, consequences, cost, and benefits of both traditional and alternative sources of energy. Field trips required.

PHSC 7 — Physical Science **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
Designed for the non-science major. A primarily non-mathematical, conceptual approach to basic principles of physics and chemistry and their practical applications. Critical thinking is stressed in such topics as motion, head magnetism, sound and light, radioactivity, atomic theory and modern physics. May be taken with Physical Sciences Laboratory for those students needing a laboratory science course.

PHSC 7L — Physical Science Laboratory **1 Unit**
54 hours of lab. Degree Appropriate, CSU, UC
Corequisite: PHSC 7
Laboratory topics will parallel the course content of Physical Science lecture.

PHYSICAL THERAPY

PHTH 81 — Physical Therapy Aide **4 Units**
54 hours of lecture. Degree Appropriate
54 hours of lab.
Advisory: ANAT 50 or equivalent
Role and skills of physical therapy aide. Procedures commonly performed by aides will be explained, demonstrated and practiced; includes terminology and interpersonal skills.

PHYSICIAN ASSISTANT PREPARATORY

PAP 101 — Fundamentals for Physician Assistant Preparatory Program **8 Units**
144 hours of lecture. Non-Degree Credit
Advisory: PAP 102 taken concurrently
Prepares students for entrance into Physician Assistant programs. Provides an overview of physician assistant fundamentals, ethics, financial aid, and interviewing techniques. Overviews physician assistant curriculum in family practice, pediatrics, orthopedics and various other topics presented in physician assistant programs. Analyzes stress coping mechanisms and time management for physician assistant students.

PAP 102 — Service Learning/Seminar for Physician Assistant Preparatory Program **6 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU
 (May be taken for Credit/No Credit only.)
 36 hours of lecture.
 216 hours of lab.
Advisory: PAP 101 taken concurrently
 Prepares students for entrance into programs for the career of Physician Assistant. Examines and profiles community health care needs. Explores and directly allows students to interface with various patient populations. Requires weekend and overnight labs to various areas in California. Out-of-class projects required. Students who repeat this course will improve skills through further instruction and practice.

PHYSICS

PHYS 1 — Physics **4 Units**
 54 hours of lecture. Degree Appropriate, CSU, UC
 54 hours of lab.
Prerequisite: MATH 51 or MATH 51B or equivalent high school courses
 Discovery of basic concepts of physics by working through guided activities in a workshop style. Topics include light and geometrical optics, electricity and DC circuits (with capacitors,) linear and rotational motion, forces, momentum, energy, harmonic motion and waves.

PHYS 2AG — General Physics **4 Units**
 (CAN PHYS 2) Degree Appropriate, CSU, UC
 PHYS 2AG + 2BG = CAN PHYS SEQ A
 54 hours of lecture.
 54 hours of lab.
Prerequisite: High school trigonometry (C or better) or MATH 150
 The basic principles of physics. Includes theory, applications, laboratory, and problem solving in mechanics, heat, fluids, and wave motion.

PHYS 2BG — General Physics **4 Units**
 (CAN PHYS 4) Degree Appropriate, CSU, UC
 Spring Semester
 PHYS 2AG + 2BG = CAN PHYS SEQ A
 54 hours of lecture.
 54 hours of lab.
Prerequisite: PHYS 2AG or equivalent
 A continuation of Physics 2AG. Includes electricity and magnetism (including DC and AC circuits,) geometrical and physical optics, relativity, quantum physics, atomic and nuclear physics. Laboratory includes use of computers to analyze data and simulate electric circuits.

PHYS 4A — Engineering Physics **5 Units**
 (CAN PHYS 8) Degree Appropriate, CSU, UC
 PHYS 4A+4B+4C = CAN PHYS SEQ B
 72 hours of lecture.
 54 hours of lab.
Prerequisite: PHYS 2AG or one year of high school physics (C or better)
Corequisite: MATH 181 (May have been taken previously)
 Studies linear and rotational motion, forces, work, energy, oscillations, gravitation, properties of solids, and waves. Includes laboratory experience, with significant use of computers for data acquisition and analysis.

PHYS 4B — Engineering Physics **5 Units**
 (CAN PHYS12) Degree Appropriate, CSU, UC
 PHYS 4A+4B+4C = CAN PHYS SEQ B
 72 hours of lecture.
 54 hours of lab.
Prerequisite: PHYS 4A
Corequisite: MATH 280 (May have been taken previously)
 Heat, kinetic theory of gases, thermodynamics, electromagnetism (including DC and AC circuits,) and Maxwell's equations. Laboratory includes significant use of computers for data acquisition, analysis and simulation.

PHYS 4C — Engineering Physics **5 Units**
 (CAN PHYS14) Degree Appropriate, CSU, UC
 PHYS 4A+4B+4C = CAN PHYS SEQ B
 72 hours of lecture.
 54 hours of lab.
Prerequisite: PHYS 4B
 Fluids, sound, electromagnetic waves, optics, diffraction and interference of waves, relativity, quantum physics, atomic and nuclear structure, nuclear reactions and elementary particles. Laboratory includes significant use of computers for data analysis.

PHYS 99 — Special Projects in Physics **2 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU
 36 hours of lecture.
Corequisite: PHYS 1 or PHYS 2AG or PHYS 4A (May have been taken previously)
 In order to offer selected students recognition for their academic interests and ability, and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Student must have instructor's authorization before enrolling in this class. Students who repeat this course will improve skills by further instruction and practice.

POLITICAL SCIENCE

POLI 1 — Political Science **3 Units**
 (CAN GOVT 2) Degree Appropriate, CSU, UC
 54 hours of lecture.
 Principles and problems of government with particular emphasis on national government in the United States. This course satisfies the requirement for a course in the Constitution of the United States and the principles of State and local government as required by Title 5 of the California Administrative Code.

POLI 1H — Political Science – Honors **3 Units**
 (CAN GOVT 2) Degree Appropriate, CSU, UC
 54 hours of lecture.
Prerequisite: Acceptance into the Honors Program
 Principles and problems of government with particular emphasis on national government in the United States. This course satisfies the requirement for a course in the Constitution of the United States and the principles of State and local government as required by Title 5 of the California Administrative Code. An honors course designed to provide an enriched experience. Students may not receive credit for both POLI 1 and POLI 1H.

POLI 2 — Political Science **3 Units**
 54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: POLI 1 or POLI 1H
 Comparative study of constitutional principles, governmental institutions, political processes, and ideologies in selected countries.

POLI 5 — Political Science Theory **3 Units**
 54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: POLI 1 or POLI 1H
 This course emphasizes political science concepts and theories; institutions; political change and dynamics. This course is designed to prepare students majoring in political science for further study in the discipline by adequate background preparation in the overall study of politics.

POLI 9 — Introduction to International Relations **3 Units**
 54 hours of lecture. Degree Appropriate, CSU, UC
 Acquaints students with the historical and political background of international relations. Attention is given to world politics, international organization and America's place in world affairs.

POLI 25 — Politics of the Mexican American **3 Units**
 54 hours of lecture. Degree Appropriate, CSU, UC
Advisory: Eligibility for ENGL 68
 Studies the impact that national, state and local governments have on the nation's largest ethnic minority (the Latino Community). Examines the national and state constitutions and the impact they have had on the Hispanic Community as a whole (not just Mexican Americans). Studies American institutions as they pertain to the Chicano Community and examines the Chicano Community's responses to the actions of the dominant political institutions.

Course Descriptions

POLI 30 — California State and Local Government **3 Units**
54 hours of lecture. Degree Appropriate, CSU
Surveys the forces shaping California government and analyzes the operation of governmental institutions within California and the political and fiscal challenges facing California.

POLI 35 — African American Politics **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
Advisory: Eligibility for ENGL 68
Examines the methods and strategies employed by African-Americans in their quest to gain equal access and participation in American institutions. This course satisfies the requirement for a course in the Constitution of the United States and the principles of State and local government as required by Title 5 of the California Administrative Code.

PSYCHOLOGY

PSYC 1A — Introduction to Psychology **3 Units**
(CAN PSY 2) Degree Appropriate, CSU, UC
54 hours of lecture.
Prerequisite: Eligibility for ENGL 68
Develops an understanding of the basic principles of behavior and mental processes. The subject matter and research methods of scientific psychology are presented. Topics include; history, biopsychology, sensation, perception, states of consciousness, learning, memory, forgetting, language, cognition, life-span development, gender, sexuality, stress, health, motivation, emotions, social psychology, abnormality, treatment and social and diversity issues.

PSYC 1AH — Introduction to Psychology – Honors **3 Units**
(CAN PSY 2) Degree Appropriate, CSU, UC
54 hours of lecture.
Prerequisite: Acceptance into the Honors Program
Develops an understanding of the basic principles underlying behavior and cognition. The subject matter and methods of scientific psychology are presented. Topics include: scientific methodology, history, biopsychology, sensation, perception, states of consciousness, learning, memory, forgetting, language, cognition, intelligence, life-span development, personality, stress, health, motivation, emotions, psychopathology, psychotherapeutic approaches, and social factors. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both PSYC 1A and PSYC 1AH.

PSYC 1B — Biological Psychology **3 Units**
(CAN PSY 10) Degree Appropriate, CSU, UC
54 hours of lecture.
Prerequisite: PSYC 1A or PSYC 1AH
Advisory: Eligibility for ENGL 1A
Biological mechanisms of behavior; introduction of evolution and genetics with emphasis on neuronal and synaptic transmission. Develops a conceptual framework and awareness of the scientific method. Stresses specific methods of investigation for the discipline.

PSYC 3 — Introduction to Research Methods in Psychology **4 Units**
(CAN PSY 8) Degree Appropriate, CSU, UC
54 hours of lecture.
54 hours of lab.
Prerequisite: PSYC 1A or PSYC 1AH and PSYC 10 or MATH 110 or MATH 110H

Advisory: ENGL 1A
Research methods in the area of social science, especially in the discipline of psychology. American Psychological Association (APA) publication style taught and used with lab experience. Includes systematic observation, survey development, correlational studies, and design, execution and analysis of experiments.

PSYC 5 — Psychology of Reasoning and Problem Solving **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
The nature of critical thinking; models and strategies; common fallacies of reasoning; self-regulation in the thinking process; application of critical thinking to specific areas, such as comparison of cognitive and information-processing models; more specifically: memory, thinking and problem solving, creativity, learning and forgetting, decision making and reasoning.

PSYC 10 — Statistics for the Behavioral Sciences **4 Units**
(CAN PSY 6) Degree Appropriate, CSU, UC
54 hours of lecture.
54 hours of lab.
Prerequisite: PSYC 1A or SOC 1 and eligibility for MATH 110
Statistical principles of the behavioral sciences emphasizes research design, scales of measurement, distributions, graphing, descriptive statistics, measures of central tendency, measures of variability, z-test, independent and dependent t-tests, inferential statistics, confidence intervals, linear correlations and regression, and analysis of variance, including multivariate factorial designs and chi square analyses. Statistical analyses through the use of computerized statistical packages are interpreted through lab experience.

PSYC 14 — Developmental Psychology **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
Advisory: Eligibility for ENGL 68
Examines the psychological principles of human development across the lifespan, from birth to death. This course does not fulfill the Title 22 requirements for Child Development majors.

PSYC 17 — Introduction to Human Services **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
Advisory: PSYC 1A or PSYC 1AH or SOC 1 or SOC 1H
History, philosophy and development of human services in America. Explores careers in human services, self-exploration in matching personal and professional interests to entry levels of human services employment.

PSYC 19 — Abnormal Psychology **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: PSYC 1A or PSYC 1AH
Application of principles of general psychology to the field of psychopathology. Major classifications of psychiatric disorders, their causes and treatment modalities. Includes theoretical perspectives used in abnormal psychology.

PSYC 25 — The Psychology of Women **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
A bio-cultural analysis of women. Emphasis will be placed on biological, psychological and sociological data related to principles of development, socialization, learning, motivation, emotion and perception.

PSYC 26 — Psychology of Sexuality **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: Eligibility for ENGL 68
Explores the factors involved in establishing and maintaining intimate sexual relationships. The focus of the course is on the findings of social psychologists concerning sexuality and love relationships in our culture.

PSYC 33 — Psychology for Effective Living **3 Units**
54 hours of lecture. Degree Appropriate, CSU
Emphasis on comprehension and application of psychological principles to interpersonal relationships, personal growth, sexuality, vocation, marriage, parenting, aging, and other circumstances encountered in the life cycle. Considers personality development and psychological disorders as well as therapeutic approaches.

PSYC 40 — Introduction to Interviewing and Counseling **3 Units**
54 hours of lecture. Degree Appropriate
Provides a basic overview of the helping processes. Stresses application of counseling theories, helping skills, and consultation theories to allow exploration of self as a helper and learn facilitating skills to bring about change. Emphasis on establishing rapport, obtaining information and developing a supportive relationship in a variety of mental health settings. Students may not receive credit for both PSYC 40 and MENT 40.

PSYC 50 — Psychology of Human Relations **3 Units**
54 hours of lecture. Degree Appropriate
Prerequisite: Eligibility for ENGL 68
Develops students' understanding of themselves and their social relationships. Emphasizes self-evaluation, experience in small groups, becoming sensitive to one's own feelings and to the feelings of others and the contributions of the behavioral sciences as resources for effective living.

<p>PSYC 99 — Special Projects in Psychology 2 Units (May be taken four times for credit.) Degree Appropriate, CSU 36 hours of lecture. To offer selected students recognition for their academic interest and ability and the opportunity to explore their disciplines to greater depth, the various departments offer Special Project courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.</p>	<p>Students will learn how to research and cover various 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. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>R-TV 09 — Broadcast Sales and Promotion 3 Units 54 hours of lecture. Degree Appropriate <i>Corequisite: R-TV 01 (May have been taken previously)</i> Covers the strategies and legalities of advertising time sales for radio and television including FCC requirements, demographic targeting, marketing strategies, and working with agencies. The course also covers promotions, including the creation of contests and promotional campaigns.</p>
RADIO-TELEVISION		
<p>R-TV 01 — Introduction to Broadcasting 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Prerequisite: Eligibility for ENGL 68</i> Theory and operation of the broadcasting industry to include the history and regulation of broadcasting in the United States, the social and economic setting of American broadcasting, and the organization of commercial radio and television stations.</p>	<p>R-TV 05 — Radio-TV Newswriting 3 Units (May be taken two times for credit.) Degree Appropriate 54 hours of lecture. <i>Corequisite: R-TV 01 (May have been taken previously)</i> Writing, editing and reporting radio and TV news, utilizing the Associated Press Wire Service, AP Newsboss software. Students will rewrite news wire copy as well as create stories from interviews and from covering news events, including the incorporation and selection of sound bites from actualities. Emphasis will be on factual and concise content and the ability to work under deadline.</p>	<p>R-TV 10 — Radio Management and Programming 3 Units 54 hours of lecture. Degree Appropriate <i>Corequisite: R-TV 01 (May have been taken previously)</i> An overview of the various techniques of programming a radio station, including various formats of music, news, talk and sports. Students will also look at the role of management at a station including budgeting, unions, ratings and FCC responsibilities.</p>
<p>R-TV 02 — Radio and Television Announcing 3 Units 54 hours of lecture. Degree Appropriate, CSU Lecture and lab in developing a broadcast voice, style and understanding of the business for all areas of the industry, including disc jockey, newscaster and voice over artist. Students will also develop an understanding of the workings of voice and diction as they pertain to broadcasting and learn to evaluate the effectiveness of voice work done by others. Emphasis will also be placed on developing the content of on-air shows. Students will review the basics of the production studio and its components.</p>	<p>R-TV 06 — Broadcast Traffic Reporting 1.5 Units 27 hours of lecture. Degree Appropriate <i>Corequisite: R-TV 01 (May have been taken previously)</i> The history and development of the techniques involved in radio and television traffic reporting through lecture and hands-on practice. Students will learn how to interpret and read police codes as they relate to traffic, accidents, and emergency situations and understand both broadcast rules and liabilities as they apply to traffic reporting. Emphasis on both the production and the delivery of reports. Students will work at the college radio station one hour per week delivering traffic reports during news broadcasts.</p>	<p>R-TV 11A — Beginning Radio Production 3 Units 36 hours of lecture. Degree Appropriate, CSU 54 hours of lab. <i>Corequisite: R-TV 01 (May have been taken previously)</i> Operation of standard radio production equipment including the console, microphone, reel-to-reel tape deck, CD players, and cart machines. Production skills will concentrate on the use of voice, music and sound effects applied to a variety of elements including commercials and newscasts.</p>
<p>R-TV 03 — Sportscasting and Reporting 1.5 Units (May be taken two times for credit.) Degree Appropriate 27 hours of lecture. <i>Corequisite: R-TV 01 and R-TV 11A (May have been taken previously)</i> This class covers in-studio sportscasting, interviewing, field reporting and play-by-play for radio and television. Students will learn the legalities and ethics of covering sports, and how to work with professional sports teams and equipment technicians. Practical experience will be provided through coverage of Mt. SAC's athletic teams. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>R-TV 07 — Commercial Voice-Overs 3 Units 54 hours of lecture. Degree Appropriate <i>Advisory: R-TV 01</i> Covers the development of voices for radio and television commercials, narrations, and animation. Students also learn how to effectively audition, work with agents and agencies, and understand voice-over contracts.</p>	<p>R-TV 11B — Advanced Radio Production 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Prerequisite: R-TV 11A</i> Concentrates on the planning, producing, editing of such programs as interviews, talk shows, and documentaries to give students practical programming experience.</p>
<p>R-TV 04 — Broadcast News Field Reporting 3 Units (May be taken two times for credit.) Degree Appropriate 54 hours of lecture. <i>Corequisite: R-TV 01, R-TV 05, and R-TV 11A (May have been taken previously)</i></p>	<p>R-TV 08 — KSAK Radio Studio Operations 2 Units (May be taken two times for credit.) Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 36 hours of lecture. <i>Corequisite: R-TV 01 (May have been taken previously)</i> A training course for positions at Mt. SAC's on-campus radio station, KSAK. Includes programming, production procedures, news, DJ and promotions, and FCC rules and regulations. Recommended for students wanting to become a part of KSAK and also offers an excellent overview of the components of a professional radio station. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>R-TV 12 — Commercial Copywriting 3 Units 54 hours of lecture. Degree Appropriate <i>Advisory: R-TV 01</i> Covers the creation and production of radio and television commercials. Includes using demographic research to target specific audiences, truth in advertising, slogan and campaign development, character creation, commercial formats, and the use of visual and audio appeals.</p> <p>R-TV 15 — Broadcast Business Practices 3 Units 54 hours of lecture. Degree Appropriate <i>Corequisite: R-TV 01 (May have been taken previously)</i> A basic overview of the radio and television industry as a business for profit. Basic techniques are discussed and examined in negotiating with station management and agents as well as dealing with contracts, residuals, re-use rights, mergers, protection of intellectual properties, union representation and FCC law. professional ethics and broadcasters' responsibilities to their audiences are also discussed.</p>

Course Descriptions

R-TV 16 — Broadcast Career Preparation **3 Units**
 (May be taken two times for credit.) Degree Appropriate
 54 hours of lecture.

Prerequisite: R-TV 11A or R-TV 19A
Corequisite: R-TV 97A and R-TV 97B or R-TV 98A and R-TV 98B
 (May have been taken previously)

Students taking this class will prepare their audio and/or video demo tapes and resumes in order to obtain and maintain an entry-level job in the broadcast industry. Emphasis will be placed on employment searches, interview techniques, involvement in professional organizations and business strategies. Students who repeat this course will improve skills through further instruction and practice.

R-TV 17 — Internet Radio Broadcasting **3 Units**
 Fall Semester Degree Appropriate
 54 hours of lecture.

Corequisite: R-TV 01, R-TV 10, and R-TV 11A (May have been taken previously)

Covers all aspects of internet broadcasting including programming, announcing, promotions and legal and copyright issues through the use of an actual internet radio station.

R-TV 18 — Writing for Television/Film **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
Advisory: R-TV 01

Characterization, visualization, structure and form in various types of writing for television and motion picture production.

R-TV 19A — Beginning Television Production **3 Units**
 Degree Appropriate, CSU
 (May be taken for option of letter grade or Credit/No Credit.)

36 hours of lecture.
 54 hours of lab.
Corequisite: R-TV 01 (May have been taken previously)

Basic video production using studio, remote multicamera, and film-style techniques.

R-TV 19B — Advanced Television Production **3 Units**
 Degree Appropriate, CSU
 (May be taken for option of letter grade or Credit/No Credit.)

36 hours of lecture.
 54 hours of lab.
Prerequisite: R-TV 19A
 Advanced video production techniques emphasizing film-style aesthetics and production.

R-TV 20 — Television News Production **3 Units**
 (May be taken two times for credit.) Degree Appropriate
 54 hours of lecture.
 18 hours of lab.

Prerequisite: R-TV 05 or R-TV 11A or R-TV 19A
Advisory: JOUR 111 or JOUR 25

TV newscasting using writing, announcing, production, direction, graphics, and editing skills both in and out of the studio. Students who repeat this course will improve skills through further instruction and practice.

R-TV 21 — Remote Television Production and Engineering **3.5 Units**
 (May be taken two times for credit.) Degree Appropriate
 54 hours of lecture.
 36 hours of lab.

Prerequisite: R-TV 19A
 Students learn remote video production using both multi-camera and single camera techniques. Topics include video engineering, directing, and remote production truck setup. Students who repeat this course will improve skills through further instruction and practice.

R-TV 22 — Electronic Graphics and Non-Linear Editing **3 Units**
 54 hours of lecture. Degree Appropriate
 Use of non-linear editors, computer graphics hardware and software for television.

R-TV 26 — Legal Issues in Entertainment Law **3 Units**
 Spring Semester Degree Appropriate
 54 hours of lecture.

Advisory: R-TV 01 or BUSL 30
 Overview of the major legal and FCC regulatory issues facing broadcasting, cable and developing media. Also covers the growing importance of intellectual property law as it applies to digital media and the Internet.

R-TV 27 — Radio Drama **3 Units**
 Spring Semester Degree Appropriate
 (May be taken two times for credit.)
 54 hours of lecture.

Prerequisite: R-TV 07
 The practical and artistic skills needed for the performance of radio drama such as voicing, directing, writing and sound design combined with broadcasting history and communication theory. Students who repeat this course will improve skills through further instruction and practice.

R-TV 97A — Radio/Entertainment Industry Seminar **1 Unit**
 (May be taken four times for credit.) Degree Appropriate
 18 hours of lecture.

Prerequisite: R-TV 01 and any other three R-TV units
Corequisite: R-TV 97B

A capstone class for students preparing for a career in the radio/entertainment industry. Students share and critique experiences emphasizing professionalism and problem-solving techniques related to their internship experience. Students who repeat this course will improve skills through further instruction and practice.

R-TV 97B — Radio/Entertainment Industry Internship **1 Unit**
 (May be taken four times for credit.) Degree Appropriate
 75 hours of lab.

Prerequisite: R-TV 01 and any other 3 R-TV units
Corequisite: R-TV 97A

Provides the student with on-the-job experience in the radio/entertainment industry in order to strengthen and broaden his/her skills in the workplace. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

R-TV 97C — Entertainment Industry Internship – KSAK Radio **1 Unit**
 Formerly R-TV 95A Degree Appropriate
 (May be taken four times for credit.)

75 hours of lab.
Prerequisite: R-TV 11A
Corequisite: R-TV 01 and R-TV 02 (May have been taken previously)
 Regular and continuing experience in the operation of the college radio station, KSAK. Students may select roles in the radio operation involving on-air announcing, production, programming and news. A minimum of 75 paid or 60 non-paisemester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.

R-TV 97D — Entertainment Industry Internship – KSAK Radio **2 Units**
 Formerly R-TV 95B Degree Appropriate
 (May be taken four times for credit.)

150 hours of lab.
Prerequisite: R-TV 11A
Corequisite: R-TV 01 and R-TV 02 (May have been taken previously)
 Regular and continuing experience in the operation of the college radio station, KSAK. Students may select roles in the radio operation involving on-air announcing, production, programming and news. A minimum of 75 paid or 60-non paid 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.

<p>R-TV 98A — Television and Film/Entertainment Industry Seminar 1 Unit (May be taken two times for credit.) Degree Appropriate 18 hours of lecture. <i>Prerequisite: R-TV 01 and R-TV 19A</i> <i>Corequisite: R-TV 98B</i> A capstone class for students preparing for a career in Television or Film Production. Students share and critique experiences emphasizing professionalism and problem-solving techniques related to their internship experience. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>RAD 31 — Fluoroscopy 2 Units Spring Semester Degree Appropriate 36 hours of lecture. <i>Corequisite: RAD 64</i> Components and characteristics of fluoroscopic systems including regulatory requirements for operation. Includes quality control and quality assurance systems relative to radiology.</p>	<p>RAD 53 — Techniques of Radiologic Technology 5 Units Spring Semester Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 256 hours of lab. <i>Prerequisite: RAD 52B</i> <i>Corequisite: RAD 62A</i> Practical application of radiographic theories and principles in an affiliated hospital under direct supervision of clinical personnel and college instructors. Emphasis on abdominal and thoracic viscera, spine, common contrast exams, and generalized skull radiography.</p>
<p>R-TV 98B — Television and Film/Entertainment Industry Internship 1 Unit (May be taken two times for credit.) Degree Appropriate 75 hours of lab. <i>Prerequisite: R-TV 01 and R-TV 19A</i> <i>Corequisite: R-TV 98A</i> Provides the student with actual on-the-job experience in television or film production in order to strengthen and broaden his/her skills in the workplace. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. It is recommended that the hours per week be equally distributed throughout the semester. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>RAD 50 — Radiologic Technology 3 Units Summer Semester Degree Appropriate, CSU 54 hours of lecture. <i>Prerequisite: Admission to the Radiologic Technology Program, MATH 51, and CHEM 10 or equivalent</i> <i>Corequisite: RAD 91</i> Subjects related to the hospital environment: radiation protection, darkroom technique, general principles of x-ray production and production of the radiograph. Introduces the student to professional ethics and the legal considerations of health care.</p>	<p>RAD 54 — Techniques of Radiologic Technology 3 Units Summer Semester Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 150 hours of lab. <i>Prerequisite: RAD 62A</i> Practical experience in a hospital setting under the supervision of clinical personnel and college instructors. Emphasis on skull, portable radiography, surgical studies and the development of nursing skills as it relates to radiologic technology.</p>
<p>R-TV 99 — Radio/TV Special Projects 2 Units (May be taken four times for credit.) Degree Appropriate 36 hours of lecture. <i>Prerequisite: Completion of six R-TV units</i> To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.</p>	<p>RAD 52 — Techniques of Radiologic Technology 4 Units Fall Semester Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 216 hours of lab. <i>Corequisite: RAD 61A</i> Practical application of radiographic theories and principles in one of several affiliated hospitals under direct supervision of clinical personnel and college instructor. Emphasis on upper and lower extremities, pelvis, shoulder girdle, chest and darkroom processing.</p>	<p>RAD 55A — Techniques of Radiologic Technology 7 Units Fall Semester Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 360 hours of lab. <i>Corequisite: RAD 63</i> Practical experience in an affiliated hospital under guidance of clinical personnel and college instructors. Emphasis on cystograms, urethrograms, foreign body localization, tomography, and venography.</p>
RADIOLOGIC TECHNOLOGY		
<p>RAD 30 — Radiographic Pathology 1.5 Units Fall Semester Degree Appropriate 24 hours of lecture. <i>Corequisite: RAD 63</i> Concepts of disease and pathological processes demonstrated in diagnostic radiography; etiology; diagnosis, and prognosis of systemic disease processes.</p>	<p>RAD 52A — Techniques of Radiologic Technology 4.5 Units Fall Semester Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 236 hours of lab. <i>Corequisite: RAD 61A</i> Practical application of radiographic theories and principles in a hospital setting under direct supervision of clinical personnel and college instructors. Emphasis on chest, upper and lower limbs, from digits to shoulder, and from toes to knee, and abdomen (KUB).</p>	<p>RAD 55B — Techniques of Radiologic Technology 2.5 Units Winter Semester Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 140 hours of lab. <i>Prerequisite: RAD 55A</i> Continued experience in a hospital setting under guidance of clinical personnel and college instructors. Emphasis on E.R.C.P., sialogram, retrograde and other advanced procedures.</p>
	<p>RAD 52B — Techniques of Radiologic Technology 2.5 Units Winter Semester Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 140 hours of lab. <i>Prerequisite: RAD 52A</i> Continued application of radiographic theories and principles in a hospital setting under direct supervision of clinical personnel and college instructor. Emphasis on upper and lower limbs.</p>	<p>RAD 56 — Techniques of Radiologic Technology 7 Units Spring Semester Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 380 hours of lab. <i>Prerequisite: RAD 64</i> Practical experience in an affiliated hospital under guidance of clinical personnel and college instructors. Emphasis on basic vascular procedures (angiograms), mammograms, tube placement, myelograms, arthrograms, and hysterosalpingograms.</p>

Course Descriptions

<p>RAD 57 — Techniques of Radiologic Technology 4 Units Summer Semester Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 232 hours of lab. <i>Prerequisite:</i> RAD 64 Practical experience as a functioning member of an affiliated hospital under the guidance of clinical personnel and college instructors. Includes exploration of paradiological imaging modalities and venipuncture instruction.</p>	<p>RAD 62B — Radiographic Positioning 3 Units Spring Semester Degree Appropriate, CSU 54 hours of lecture. <i>Corequisite:</i> RAD 62A Fundamentals of radiographic positioning of the abdomen, digestive and urinary systems, thorax, vertebral column, general cranial, facial and introduction to temporal bone radiography (mastoid and TMJ), to include radiologic anatomy, terminology, radiation protection, pediatrics and ethics.</p>	<p>READ 70 — Improving Reading Comprehension 3 Units (May be taken two times for credit.) (May be taken for Credit/No Credit only.) 54 hours of lecture. 24 hours of lab. <i>Prerequisite:</i> Satisfactory score on appropriate placement test Introduction to reading, comprehension, and vocabulary strategies. Introduction to self-awareness of reading capabilities. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>RAD 61A — Theory of Radiologic Technology 4 Units Fall Semester Degree Appropriate, CSU 72 hours of lecture. <i>Prerequisite:</i> RAD 50, MEDI 90 <i>Corequisite:</i> RAD 52, RAD 61B, RAD 61C Concepts of radiation, fundamentals of physics, the atom, electromagnetic radiation, electricity and magnetism, electromagnetism, the x-ray machine and fluoroscopic equipment and procedures.</p>	<p>RAD 62C — Radiologic Technology Seminar 1 Unit Spring Semester Degree Appropriate, CSU 18 hours of lecture. 18 hours of lab. <i>Corequisite:</i> RAD 62A Advanced analysis of the technical performance of radiographic examination of the vertebral column, bony thorax, digestive system, urinary system, abdomen and general cranial radiography.</p>	<p>READ 80 — Developing Reading Comprehension 3 Units (May be taken two times for credit.) (May be taken for Credit/No Credit only.) 54 hours of lecture. 24 hours of lab. <i>Prerequisite:</i> READ 70 or satisfactory score on reading placement test Further development of reading comprehension and vocabulary strategies including self-awareness of reading capabilities. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>RAD 61B — Radiographic Positioning 3 Units Fall Semester Degree Appropriate, CSU 54 hours of lecture. <i>Corequisite:</i> RAD 61A Fundamentals of radiographic positioning of the upper and lower extremities, standard chest and abdomen; to include general radiologic anatomy, terminology, radiation protection, and ethics.</p>	<p>RAD 63 — Theory of Radiologic Technology 4 Units 72 hours of lecture. Degree Appropriate, CSU <i>Prerequisite:</i> RAD 54 <i>Corequisite:</i> RAD 30, RAD 55 Special radiographic studies, contrast media usage and radiographic pathology. Includes principles of radiation protection and radiobiology.</p>	<p>READ 90 — Preparing for College Reading 3 Units (May be taken two times for credit.) Degree Appropriate (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Prerequisite:</i> READ 80 or satisfactory score on reading placement test Prepares students for college textbook reading. Emphasizes understanding vocabulary and college level text analysis and comprehension. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>RAD 61C — Radiologic Technology Seminar 1 Unit Fall Semester Degree Appropriate, CSU 18 hours of lecture. 18 hours of lab. <i>Corequisite:</i> RAD 61A Analysis of the technical performance of producing radiographs of the chest, upper and lower extremities, and KUB. Documentation of radiographic exposure techniques.</p>	<p>RAD 64 — Theory of Radiologic Technology 4 Units 72 hours of lecture. Degree Appropriate, CSU <i>Prerequisite:</i> RAD 63 <i>Corequisite:</i> RAD 31, RAD 56 An analytical review of the radiologic technology core courses. serves as preparation for State Certification and National Registry Exams.</p>	<p>READ 100 — Analysis and Critical Reading 3 Units 54 hours of lecture. Degree Appropriate, CSU <i>Prerequisite:</i> READ 90 or satisfactory score on reading placement test Effective use of critical reading in a cross-disciplinary framework. Emphasis on the development of critical reading skills of interpretation, analysis and evaluation of academic, business, and technology readings.</p>
<p>RAD 62A — Theory of Radiologic Technology 4 Units Spring Semester Degree Appropriate, CSU 72 hours of lecture. <i>Prerequisite:</i> ANAT 10A, RAD 61A <i>Corequisite:</i> RAD 53, RAD 62B, RAD 62C Areas of X-ray production and interaction with matter, X-ray emissions, beam restricting devices, grids, film processing, screens, radiographic quality and special equipment/accessories and procedures.</p>	<p>RAD 91 — Nursing Procedures in Radiologic Technology 2 Units 24 hours of lecture. Degree Appropriate, CSU 24 hours of lab. <i>Corequisite:</i> RAD 50 Nursing techniques and procedures; provides students with knowledge of proper patient care and management; includes patient transfer, disinfection and/or sterilization, isolation techniques, monitoring vital signs, common emergency situations and monitoring medical equipment.</p>	<p>READ 110 — Reading Tutoring for Elementary Students Through Service Learning 3 Units 36 hours of lecture. Degree Appropriate 54 hours of lab. <i>Advisory:</i> Eligibility for ENGL 68 Fundamentals of reading comprehension, vocabulary development and phonics. Educational approaches include awareness of learning styles, motivation, levels of cognition and oral communication. Covers lesson planning and the methodologies of presenting lessons. In coordination with local elementary schools, students reinforce learned concepts through on-site tutoring as a service learning experience.</p>
READING		
	<p>READ 65 — Speed Reading: Methods and Applications 1 Unit 18 hours of lecture. Degree Appropriate, CSU Designed to increase reading speed, while maintaining comprehension of college-level material. Improves concentration and recall. Develops flexibility in reading rate.</p>	

RESPIRATORY THERAPY					
RESD 50 — Theory and Principles of Respiratory Therapy	2 Units	RESD 55 — Adult Respiratory Intensive Care	3 Units	RESD 58 — Neonatal Intensive Care	3 Units
Fall Semester	Degree Appropriate, CSU	Fall Semester	Degree Appropriate, CSU	Fall Semester	Degree Appropriate, CSU
36 hours of lecture.		54 hours of lecture.		54 hours of lecture.	
<i>Corequisite: RESD 51A, RESD 52</i>		<i>Corequisite: RESD 56B-1</i>		<i>Corequisite: RESD 56B-1, RESD 55</i>	
<i>Advisory: ANAT 10A, ANAT 10B, CHEM 10, MATH 51 or MATH 59, MEDI 90, taken prior</i>		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.		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.	
Properties of liquids, gases, kinetic theory of gases, units of measurements, gas laws, lung mechanics, flow of fluids, and pressure measuring devices used in respiratory therapy.		RESD 56A-1 — Techniques of Respiratory Therapy	5 Units	RESD 59 — Respiratory Therapeutic Modalities	3 Units
		Summer Semester	Degree Appropriate, CSU	Spring Semester	Degree Appropriate, CSU
		(May be taken for Credit/No Credit only.)		54 hours of lecture.	
		288 hours of lab.		<i>Corequisite: RESD 56C-1, RESD 61</i>	
		<i>Prerequisite: RESD 51B</i>		Advanced practitioner skills development pertinent to the application and function of respiratory therapy equipment with emphasis on the machine-patient interface.	
		<i>Corequisite: RESD 57</i>			
		Clinical practice in a hospital setting. The student is expected to perform basic therapeutic modalities mastered in RESD 51A and RESD 51B and apply concepts learned in the first two semesters of the Respiratory Therapy Program. Instruction in the application of therapeutic modalities and diagnostic procedures performed in the management and treatment of adult and pediatric patients requiring respiratory care are introduced.			
RESD 51A — Respiratory Therapy Science	4 Units	RESD 56B-1 — Techniques of Respiratory Therapy	6 Units	RESD 60 — Comprehensive Pulmonary Assessment	2 Units
Fall Semester	Degree Appropriate, CSU	Fall Semester	Degree Appropriate, CSU	Spring Semester	Degree Appropriate, CSU
54 hours of lecture.		(May be taken for Credit/No Credit only.)		36 hours of lecture.	
54 hours of lab.		324 hours of lab.		<i>Corequisite: RESD 51B, RESD 53</i>	
<i>Prerequisite: Admission to Respiratory Therapy Program</i>		<i>Prerequisite: RESD 56A-1</i>		Techniques of pulmonary assessment including history taking, clinical laboratory data, pulmonary function testing data, chest X-rays, physician exam findings, arterial blood gas data, hemodynamic monitoring data, exhaled gas monitoring data, nutrition, and synopsis of findings; extensive practice in collecting and recording this data.	
<i>Corequisite: RESD 50, RESD 52</i>		<i>Corequisite: RESD 55, RESD 58</i>			
Basic principles of respiratory therapy equipment. Emphasis placed on methods of administration of therapy and application of specialized equipment in the clinical setting. Basic respiratory physiology and oxygen transport.		Clinical practice in the hospital setting. Introduction to intensive care and mechanical ventilator procedures in the treatment of adult and pediatric patients		RESD 61 — Current Issues in Respiratory Care	3 Units
				Spring Semester	Degree Appropriate, CSU
				54 hours of lecture.	
				<i>Corequisite: RESD 56C-1, RESD 59</i>	
				Explores recently developed health care techniques and strategies for diagnostics, assessment, and therapeutics and their impact on respiratory therapists.	
RESD 51B — Respiratory Therapy Science	4 Units	RESD 56C-1 — Techniques of Respiratory Therapy	6 Units		
Spring Semester	Degree Appropriate, CSU	Spring Semester	Degree Appropriate, CSU	SL 1 — Service Learning/Seminar for Health Occupations	6 Units
54 hours of lecture.		(May be taken for Credit/No Credit only.)		(May be taken four times for credit.)	Degree Appropriate, CSU
54 hours of lab.		324 hours of lab.		36 hours of lecture.	
<i>Prerequisite: RESD 50 and RESD 51A</i>		<i>Prerequisite: RESD 56B-1</i>		216 hours of lab.	
<i>Corequisite: RESD 53 and RESD 60</i>		<i>Corequisite: RESD 59, RESD 61</i>		Prepare students with related experiences in health occupations. Examines and profiles community health care needs. Explores and directly allows students to interface with various patient populations. Weekend and overnight labs to various areas within California may be offered. Out-of-class projects required. Students who repeat this course will improve skills through further instruction and practice.	
Basic principles of respiratory therapy equipment will be presented. Emphasis is placed on the methods of administration of therapy and the application of specialized equipment in the acute care setting and the application of mechanical ventilation in the clinical setting.		Clinical practice in the hospital setting. Application of therapeutic modalities and diagnostic procedures performed in the management and treatment of adult and pediatric intensive care patients. A six-week rotation is done in the neonatal intensive care unit. The student is expected to perform basic therapeutic modalities mastered in RESD 51A and RESD 51B and apply concepts learned in the first four semesters of the Respiratory Therapy Program.			
RESD 52 — Pulmonary Anatomy and Physiology	3 Units	RESD 57 — Special Procedures for Respiratory Care	3 Units		
Fall Semester	Degree Appropriate, CSU	Summer Semester	Degree Appropriate, CSU		
54 hours of lecture.		54 hours of lecture.			
<i>Corequisite: RESD 51A</i>		<i>Corequisite: RESD 56A-1</i>			
Anatomy and physiology of the cardiopulmonary, neurological and renal systems emphasizing clinical application of physiological concepts.		Basic application and skills development in respiratory pharmacology, bronchoscopy, blood drawing and analysis, chest drainage, NIPPV, and mechanical ventilation.			
RESD 53 — Cardiopulmonary Pathophysiology	3 Units				
Spring Semester	Degree Appropriate, CSU				
54 hours of lecture.					
<i>Corequisite: RESD 51B</i>					
Anatomic alterations of the lungs, etiology, overview of the cardiopulmonary clinical manifestations, and general management of commonly encountered cardiopulmonary diseases.					

SERVICE LEARNING

SL 1 — Service Learning/Seminar for Health Occupations **6 Units**
(May be taken four times for credit.) Degree Appropriate, CSU
36 hours of lecture.
216 hours of lab.
Prepare students with related experiences in health occupations. Examines and profiles community health care needs. Explores and directly allows students to interface with various patient populations. Weekend and overnight labs to various areas within California may be offered. Out-of-class projects required. Students who repeat this course will improve skills through further instruction and practice.

Course Descriptions

<p>SL 2 — Linked Service Learning 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lab. Links service learning with content-specific courses across the college curriculum. Allows students to explore interests or career objectives through community involvement and service. Requires arranged hours of community-based activity. Must be enrolled concurrently in a course with a service learning Link. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>SL 3 — Service Learning/Seminar in Community Involvement 3 Units (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 18 hours of lecture. 108 hours of lab. Examines and profiles community needs through service learning. Explores and allows students to directly interface with community populations. Permits students the opportunity to explore various career options through community service. Enriches personal and career development through understanding of civic and social issues. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>SL 4 — Service Learning and Community Involvement 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for option of letter grade or Credit/No Credit.) 9 hours of lecture. 27 hours of lab. Examines and addresses community needs through service learning. Students directly interface with community populations to identify needs and implement activities. Permits exploration of service-oriented career options. Enriches personal and career development through understanding of civic and social issues.</p>
<p>SL 99 — Special Projects in Service Learning 1 Unit (May be taken four times for credit.) Degree Appropriate, CSU (May be taken for Credit/No Credit only.) 36 hours of lab. In order to offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, from time to time various departments offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Student must have instructor's authorization before enrolling in this class. Students who repeat this course will improve skills through further instruction and practice.</p>

SIGN LANGUAGE, INTERPRETING

<p>SIGN 99 — Special Projects in Sign Language/Interpreting 2 Units (May be taken three times for credit.) Degree Appropriate 36 hours of lecture. <i>Prerequisite:</i> SIGN 81 or equivalent signing ability Offers students the opportunity to explore American Sign Language, American Deaf Culture or Sign Language Interpreting in greater depth. Content and methods of study vary from semester to semester and depend on the particular project under consideration.</p>
<p>SIGN 101 — American Sign Language 1 4 Units <i>Formerly SIGN 80</i> Degree Appropriate, CSU, UC 72 hours of lecture. <i>Prerequisite:</i> Eligibility for ENGL 68 Fundamentals of American Sign Language: Preparation for visual/gestural communication followed by intensive work on comprehension skills; modeling of grammatical structures; general information about Deaf Culture.</p>
<p>SIGN 102 — American Sign Language 2 4 Units <i>Formerly SIGN 81</i> Degree Appropriate, CSU, UC 72 hours of lecture. <i>Prerequisite:</i> SIGN 80 or SIGN 101 or equivalent fluency Further study of fundamentals of AS: comprehension skills, grammatical structures and practice in the expressive aspects of the language, as well as exposure to Deaf culture.</p>
<p>SIGN 103 — American Sign Language 3 4 Units <i>Formerly SIGN 82A</i> Degree Appropriate, CSU, UC 72 hours of lecture. <i>Prerequisite:</i> SIGN 81 or SIGN 102 <i>Advisory:</i> SIGN 83 or SIGN 201 Further study of American Sign Language: Comprehension skills, advanced grammatical structures, and continued emphasis on expressive skills in narrative and aspects of Deaf culture.</p>
<p>SIGN 104 — American Sign Language 4 4 Units <i>Formerly SIGN 82B</i> Degree Appropriate, CSU, UC 72 hours of lecture. <i>Prerequisite:</i> SIGN 82A or SIGN 103 <i>Advisory:</i> SIGN 85 or SIGN 202 Emphasis on expressive/conversational skills in ASL along with continued focus on grammatical and cultural features.</p>
<p>SIGN 105 — American Sign Language 5 4 Units <i>Formerly SIGN 82C</i> Degree Appropriate (May be taken two times for credit.) 72 hours of lecture. <i>Prerequisite:</i> SIGN 82B or SIGN 104</p>

Advanced American Sign Language communication skills with emphasis on signing descriptive narratives and strengthening conversational skills. Target language practice includes holding discussions and making decisions. Further exposure to Deaf cultural components. Students who repeat this course will improve skills through further instruction and practice.

<p>SIGN 108 — Fingerspelling 2 Units <i>Formerly SIGN 89</i> Degree Appropriate (May be taken three times for credit.) (May be taken for Credit/No Credit only.) 36 hours of lecture. <i>Prerequisite:</i> SIGN 81 or SIGN 102 Skill development in receptive and expressive fingerspelling. Students who repeat this course will improve fluency and better prepare themselves for other courses in the program.</p>
<p>SIGN 201 — Deaf Perspectives 3 Units <i>Formerly SIGN 83</i> Degree Appropriate 54 hours of lecture. Comprehensive study of Deaf people throughout their lives, including points of view from a variety of Deaf and hard-of-hearing people and from their relatives, educators, and other professionals in the field.</p>
<p>SIGN 202 — American Deaf Culture 3 Units <i>Formerly SIGN 85</i> Degree Appropriate, CSU, UC 54 hours of lecture. American Deaf cultural norms, values, mores and institutions.</p>
<p>SIGN 210 — American Sign Language Structure 3 Units <i>Formerly SIGN 86</i> Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite:</i> SIGN 81 or SIGN 102 Linguistic structure of American Sign Language, including phonology, morphology and syntax. Sociolinguistic issues will also be discussed.</p>
<p>SIGN 220 — Translation: American Sign Language/English 3 Units <i>Formerly SIGN 87</i> Degree Appropriate (May be taken three times for credit.) 54 hours of lecture. <i>Prerequisite:</i> SIGN 82A or SIGN 103 and SIGN 86 or SIGN 210 Practice in translating between American Sign Language and English by comparing texts in both languages. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>SIGN 230 — Principles of Interpreting 3 Units <i>Formerly SIGN 88</i> Degree Appropriate 54 hours of lecture. <i>Corequisite:</i> SIGN 82B or SIGN 104 (May have been taken previously) Covers various aspects of interpreting theory and process including the history of sign language interpreting. Examines the interpreter's role and ethical standards.</p>

<p>SIGN 231 — Interpreting 4 Units <i>Formerly SIGN 88A</i> Degree Appropriate (May be taken three times for credit.) 72 hours of lecture. <i>Prerequisite:</i> SIGN 82B or SIGN 104, SIGN 87 or SIGN 220, and SIGN 88 or SIGN 230 <i>Advisory:</i> SPCH 1A Skill development in interpreting from American Sign Language (ASL) to English and English to ASL, focusing on interpreting in the consecutive mode. Processing skills and task management will be emphasized. Students who repeat this course will improve their skill and better prepare themselves for the next interpreting course.</p>	<p>SOC 1H — Sociology – Honors 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite:</i> Acceptance into the Honors Program A systematic study of human relations and social structures which emphasizes the interaction between personality, culture and society. Special consideration is given to an understanding of group behavior, personality formation, social organization, and social change. An honors course designed to provide an enriched experience. Students may not receive credit for both SOC 1 and SOC 1H.</p>	<p>SOC 14 — Marriage and the Family 3 Units (CAN FCS 12) Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite:</i> Eligibility for ENGL 68 Explores the sociological and psychological functions of dating, engagement, weddings, marriage, and the family. Focuses on influences and theories of mate selection, love, and interpersonal attraction. Covers trends and changes in marriage and the family and gender roles. Explores different types of families and family patterns. Covers factors leading to divorce and influences on the divorce rate, remarriage rate, and step-families. Explores family life-cycle adjustments including parenthood, mid-life, grandparenthood, and widowhood. Analyzes characteristics of “successful” marriages and families.</p>
<p>SIGN 232 — Advanced Interpreting 4 Units <i>Formerly SIGN 88B</i> Degree Appropriate (May be taken three times for credit.) 72 hours of lecture. <i>Prerequisite:</i> SIGN 88A or SIGN 231 Refines basic interpreting skills with emphasis on simultaneous interpreting. Intensive skill development in interpreting from English to American Sign Language (ASL) and ASL to English. Students who repeat this course will improve their skill and better prepare themselves for entry-level job placement.</p>	<p>SOC 2 — Sociology 3 Units (CAN SOC 4) Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite:</i> SOC 1 <i>Advisory:</i> Eligibility for ENGL 1A or SPCH 1A The application of basic sociological principles and concepts to the study and understanding social problems. Special emphasis on the analysis of social values, social organization, role, status and stress, and also on the study of controversial public issues that arise in contemporary American society. Students will be encouraged to evaluate and discuss both the theoretical and practical approaches to social problems. Individual student projects will be undertaken.</p>	<p>SOC 15 — Child Development 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC Theoretical aspects of physical, social, emotional and cognitive development from conception through adulthood. Requires observation of children. Meets the requirements for Title 22 and Title 5 California Children’s Center Instructional Permit.</p>
<p>SIGN 238 — Oral Transliteration 3 Units <i>Formerly SIGN 92</i> Degree Appropriate (May be taken two times for credit.) 54 hours of lecture. Learn skills to facilitate communication for Deaf and hard-of-hearing people who use speechreading and speech to communicate. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>SOC 2H — Sociology – Honors 3 Units (CAN SOC 4) Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite:</i> Acceptance into the Honors Program The application of basic sociological principles and concepts to the study and understanding social problems. Special emphasis on the analysis of social values, social organization, role, status and stress, and also on the study of controversial public issues that arise in contemporary American society. Students will be encouraged to evaluate and discuss both the theoretical and practical approaches to social problems. Individual student projects will be undertaken. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both SOC 2 and SOC 2H.</p>	<p>SOC 20 — Sociology of Ethnic Relations 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC Provides insight to the culture diversity that exists in the United States. An extensive study of four major ethnic groups (Blacks, Asians, Native Americans, and Latinos) is provided with emphasis placed on historical experiences, contemporary circumstances and future trends. Origins and theories of stereotypes, prejudices and discrimination are explored along with an analysis of racial stratification.</p>
<p>SIGN 239 — Practicum 1 Unit <i>Formerly SIGN 88L</i> Degree Appropriate (May be taken for Credit/No Credit only.) 54 hours of lab. <i>Prerequisite:</i> SIGN 88B or SIGN 232 Develops and hones interpreting skills in supervised interpreting situations.</p>	<p>SOC 4 — Introduction to Gerontology 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC Characteristics, contributions, and problems of older persons. Emphasizes theoretical perspectives on the process of aging. Topics include gender, race, ethnicity, religion, stratification, and health care. Attention is given to gerontology as an academic discipline and a field of practice.</p>	<p>SOC 20H — Sociology of Ethnic Relations – Honors 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite:</i> Acceptance into the Honors Program Provides insight to the culture diversity that exists in the United States. An extensive study of four major ethnic groups (Blacks, Asians, Native Americans, and Latinos) is provided with emphasis placed on historical experiences, contemporary circumstances and future trends. Origins and theories of stereotypes, prejudices and discrimination are explored along with an analysis of racial stratification. An honors course designed to provide an enriched experience. Students may not receive credit for both SOC 20 and SOC 20H.</p>
SOCIOLOGY		
<p>SOC 1 — Sociology 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite:</i> Eligibility for ENGL 68 A systematic study of human relations and social structures which emphasizes the interaction between personality, culture and society. Special consideration is given to an understanding of group behavior, personality formation, social organization, and social change.</p>	<p>SOC 5 — Introduction to Criminology 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC 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.</p>	<p>SOC 99 — Special Projects in Sociology 2 Units (May be taken four times for credit.) Degree Appropriate, CSU 36 hours of lecture. Offers selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.</p>

Course Descriptions

SPANISH		
SPAN 1 — Elementary Spanish (CAN SPAN 2) SPAN 1+2 = CAN SPAN SEQ A 72 hours of lecture. Development of the ability to converse, read and write in Spanish. Includes essentials of pronunciation, vocabulary, idioms and grammatical structures along with an introduction to Hispanic culture. Intended for students without previous exposure to Spanish.	4 Units Degree Appropriate, CSU, UC	
SPAN 2 — Continuing Elementary Spanish (CAN SPAN 4) SPAN 1+2 = CAN SPAN SEQ A 72 hours of lecture. <i>Prerequisite: SPAN 1 or SPAN 1H or two years of high school Spanish or equivalent.</i> Further development of conversational, reading and writing skills in Spanish with special emphasis on verbs, grammar and expansion of vocabulary. Further study of Hispanic culture.	4 Units Degree Appropriate, CSU, UC	
SPAN 3 — Intermediate Spanish (May be taken for option of letter grade or Credit/No Credit.) 72 hours of lecture. <i>Prerequisite: SPAN 2 or equivalent</i> Further development of communicative proficiency in Spanish. Further study and review of grammar. Increasing emphasis on reading and writing as tools in exploring Hispanic civilization.	4 Units Degree Appropriate, CSU, UC	
SPAN 3H — Intermediate Spanish – Honors (CAN SPAN 8) SPAN 3H + 4 = CAN SPAN SEQ B 72 hours of lecture. <i>Prerequisite: Acceptance into the Honors Program</i> Further development of communicative proficiency with increasing emphasis on reading and writing as tools in exploring Hispanic history and culture. Review and expansion of vocabulary and structural components. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both SPAN 3 and SPAN 3H.	4 Units Degree Appropriate, CSU, UC	
SPAN 4 — Continuing Intermediate Spanish (CAN SPAN10) SPAN 3+4 = CAN SPAN SEQ B (May be taken for option of letter grade or Credit/No Credit.) 72 hours of lecture. <i>Prerequisite: SPAN 3 or SPAN 3H or equivalent</i> Emphasis on increased proficiency in speaking, reading and writing Spanish. Review of grammar, increased vocabulary building. Readings and discussions on Hispanic cultural topics. Introduction to Hispanic literature.	4 Units Degree Appropriate, CSU, UC	
SPAN 5 — Advanced Spanish (May be taken for option of letter grade or Credit/No Credit.) 72 hours of lecture. <i>Prerequisite: SPAN 4 or equivalent</i> Emphasis is placed on increased proficiency in speaking, reading and writing Spanish. Cultural insights are developed through videos, movies and readings in Hispanic culture through different literary genres.	4 Units Degree Appropriate, CSU, UC	
SPAN 6 — Continuing Advanced Spanish (May be taken for option of letter grade or Credit/No Credit.) 72 hours of lecture. <i>Prerequisite: SPAN 5 or equivalent</i> Advanced reading, discussing and writing in Spanish designed to provide further cultural insights into the Hispanic world through the study of cultural and literary readings. High level of proficiency in Spanish will be emphasized.	4 Units Degree Appropriate, CSU, UC	
SPAN 11 — Spanish for the Spanish Speaking 72 hours of lecture. Degree Appropriate, CSU, UC Provides Spanish-speaking students without previous formal study of Spanish with the basis to improve skills in standard Spanish and to broaden their understanding of Hispanic cultures. Focuses on developing vocabulary, improving orthography and the use of grammatical structures, both oral and written. Class instruction conducted in Spanish.	4 Units Degree Appropriate, CSU, UC	
SPAN 12 — Continuing Spanish for the Spanish Speaking 72 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: SPAN 11 or equivalent</i> Provides Spanish-speaking students with previous formal study of Spanish with further development and improvement of skills in standard Spanish and a broader understanding of Hispanic cultures. Culturally-based topics are the focus of readings and class discussions. Class instruction conducted in Spanish.	4 Units Degree Appropriate, CSU, UC	
SPAN 25 — Spanish Literature (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Prerequisite: SPAN 4 or equivalent</i> Introduction to the literatures of Mexico, other Spanish-American countries and Spain. All reading and lectures are in Spanish.	3 Units Degree Appropriate, CSU, UC	
SPAN 35 — Spanish Language Laboratory (May be taken four times for credit.) (May be taken for Credit/No Credit only.) 27 hours of lab. <i>Corequisite: Current or previous enrollment in Spanish</i>	.5 Unit Degree Appropriate, CSU	
		An independent study laboratory course for students who wish to improve their skills in Spanish. May supplement any current or previous Spanish course. Requires 24 hours using Language Learning Center resources to receive credit. Students who repeat this course will improve their language skills and expand their knowledge of Hispanic cultures.
		SPAN 53 — Conversational Spanish (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Prerequisite: SPAN 3 or SPAN 3H or four years of high school Spanish or equivalent</i> Development of intermediate Spanish conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Hispanic culture. Grammar is presented in context.
		SPAN 54 — Continuing Conversational Spanish (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Prerequisite: SPAN 53</i> Development of advanced Spanish conversational skills. Emphasis on collaborative activities and practical use of the language. Extensive exposure to Hispanic culture. Grammar is presented in context.
		SPAN 62 — Spanish for Teachers (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. <i>Prerequisite: SPAN 1 or two years of high school Spanish</i> Spanish related to concepts taught in public schools K-12, stressing communication with Spanish-speaking students and their families.
		SPAN 66 — Spanish for Fire and Police Personnel (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. Teaches the student to elicit basic information and answer simple questions in Spanish relating to everyday situations in law enforcement and fire science. Upon completion, the student will be able to talk to Spanish speakers about routine matters, such as family and job related conditions.
SPEECH		
		SPCH 1A — Public Speaking (CAN SPCH 4) 54 hours of lecture. <i>Prerequisite: Eligibility for ENGL 1A</i> Study and apply rhetorical principles to research and analyze topics, organize sentence outlines, and deliver effective public speeches. Students perform speaking and listening assignments that utilize effective verbal, vocal and physical communicative strategies and critical/analytical techniques.

<p>SPCH 1AH — Public Speaking – Honors 3 Units (CAN SPCH 4) Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite: Acceptance into the Honors Program</i> Study and apply rhetorical principles to research and analyze topics, organize sentence outlines, and deliver effective public speeches. Perform speaking and listening assignments that utilize effective verbal, vocal, and physical communicative strategies and critical/ analytical techniques. An honors course designed to provide an enriched experience. Students may not receive credit for both SPCH 1A and SPCH 1AH.</p>	<p>SPCH 6 — Small Group Communication 3 Units (CAN SPCH10) Degree Appropriate, CSU, UC 54 hours of lecture. <i>Corequisite: SPCH 1A or SPCH 1AH (May have been taken previously)</i> Principles of communication in a variety of small group contexts. Theory, application and evaluation of group communication processes, including problem solving, conflict management, decision making, and leadership.</p>	<p>SPCH 16C — Forensics: Readers Theater Team 2 Units (May be taken three times for credit.) Degree Appropriate, CSU 180 hours of activity. <i>Corequisite: SPCH 15 (May have been taken previously)</i> Students develop speech performance skills and participate in multiple intercollegiate speaking competitions, festivals, and/or public events as members of the Mt. SAC Forensics Team. Students will perform in one or more Readers Theater pieces. Students who repeat this course will improve skills through further instruction and practice.</p>
<p>SPCH 1B — Advanced Public Speaking 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: SPCH 1A or SPCH 1AH</i> Practice in extemporaneous speaking with stress on organization and delivery. Analyze, synthesize, criticize and advocate ideas, using inductive and deductive reasoning, distinguishing fact from opinion and avoiding fallacies of language and logic as critical thinkers both as alert members of an audience and as perceptive public speakers.</p>	<p>SPCH 7 — Intercultural Communication 3 Units 54 hours of lecture. Degree Appropriate, CSU Introduction to intercultural communication in domestic and/or global contexts. Influence of cultures, languages, and social patterns on how members of groups relate among themselves and with members of different ethnic and cultural groups. Theory and application of effective communication across cultures. Appreciation of diverse cultural voices.</p>	<p>SPCH 20 — Argumentation and Debate 3 Units (CAN SPCH 6) Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite: SPCH 1A or SPCH 1AH or equivalent</i> Equips the student to engage in rational discussion and reasoned advocacy. Emphasis is given to rhetorical principles of argumentation, both theory and practice.</p>
<p>SPCH 3 — Voice and Diction 3 Units Degree Appropriate, CSU, UC (May be taken for option of letter grade or Credit/No Credit.) 54 hours of lecture. Improvement of the speaking voice and oral communication style, including proper use for control and projection of the voice, vocal expressiveness, articulation and pronunciation. Develops accuracy of sound production for standard American speech through use of the International Phonetic Alphabet. Emphasizes individual diagnosis and extensive oral practice.</p>	<p>SPCH 15 — Forensics: Contest Speech and Debate 2 Units (May be taken four times for credit.) Degree Appropriate, CSU 18 hours of lecture. 54 hours of lab. <i>Advisory: SPCH 1A or SPCH 1AH</i> Participation in intercollegiate speech tournaments. Instructions in procedures preparatory for these tournaments, including techniques in persuasive oratory, extempore, interpretation, expository, impromptu, discussion, speech analysis, debate. Student has option to choose area of interest and also an opportunity to participate in public community programs. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>SPCH 20H — Argumentation and Debate – Honors 3 Units (CAN SPCH 6) Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite: SPCH 1A or SPCH 1AH and acceptance into the Honors Program</i> Equips the student to engage in rational discussion and reasoned advocacy. Emphasis is given to rhetorical principles of argumentation, both theory and practice. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both SPCH 20 and SPCH 20H.</p>
<p>SPCH 4 — Oral Interpretation of Literature 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC Develops an appreciation of various genres of literature through textual analysis, oral reading, and evaluation. Practical training is given in critical reading, editing, and performance of poetry, prose, drama, essay and experimental forms of performance text.</p>	<p>SPCH 16A — Forensics: Individual Event Team 2 Units (May be taken three times for credit.) Degree Appropriate, CSU 180 hours of activity. <i>Corequisite: SPCH 15 (May have been taken previously)</i> Students develop speech performance skills and participate in multiple intercollegiate speaking competitions, festivals, and/or public events as members of the Mt. SAC Forensics Team. Emphasis is on individual speaking events, including public address and oral interpretation of literature. of judge critiques and directed self-study. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>SPCH 26 — Interpersonal Communication 3 Units (CAN SPCH 8) Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite: Eligibility for ENGL 68</i> Enhances ability to communicate on a one-to-one basis. Classroom discussion and group experiences provide skills to cope effectively with varied communication styles and behaviors encountered in family, social or professional setting.</p>
<p>SPCH 5 — Readers Theater 3 Units 54 hours of lecture. Degree Appropriate, CSU, UC <i>Prerequisite: SPCH 1A or SPCH 1AH or SPCH 4</i> Theory, principles, and techniques of the interpretation of literature in the medium of readers theater. There is programming and presentation of prose, poetry and drama by an ensemble of readers. Emphasis is placed on experimental presentations and on the development of analytical insight into literary forms.</p>	<p>SPCH 16B — Forensics: Debate Team 2 Units (May be taken three times for credit.) Degree Appropriate, CSU 180 hours of activity. <i>Corequisite: SPCH 15 (May have been taken previously)</i> Students develop speaking and argumentation skills and participate in multiple inter-collegiate speaking competitions, festivals, and/or public events as members of the Mt. SAC Forensics Team. Emphasis is on parliamentary debate and extemporaneous speaking. Students who repeat this course will improve skills through further instruction and practice.</p>	<p>SPCH 26H — Interpersonal Communication – Honors 3 Units (CAN SPCH 8) Degree Appropriate, CSU, UC 54 hours of lecture. <i>Prerequisite: Acceptance into the Honors Program</i> Enhances the ability to communicate on a one-to-one basis. Classroom discussion and group experiences provide skills to cope effectively with varied communication styles and behaviors in family, social, or professional setting. An honors course designed to provide an enriched experience for accelerated students. Students may not receive credit for both SPCH 26 and SPCH 26H.</p>

Course Descriptions

SPCH 68 — Preparation for Public Speaking **3 Units**
54 hours of lecture. Degree Appropriate
Advisory: ENGL 67 or eligibility for ENGL 68 or AMLA 43W
Preparation for college level public speaking. Emphasis on outlining, research skills, organization of ideas, and management of speech anxiety. Includes multiple speaking and anxiety reduction activities.

SPCH 99 — Special Projects in Speech **2 Units**
(May be taken four times for credit.) Degree Appropriate, CSU
108 hours of lecture.
To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines to greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.

STUDENT GOVERNMENT

STGV 55 — Student Government **3 Units**
(May be taken four times for credit.) Degree Appropriate
36 hours of lecture.
54 hours of lab.
Teaches leadership skills and provides practical experience in program planning, organization and evaluation. Students may or may not serve in elected or appointed campus positions. Several learning opportunities are offered and students are assisted in selecting learning opportunities and projects. Students who repeat this course will improve skills through further instruction and practice.

STUDY TECHNIQUES

STDY 80 — Studying and Learning: Foundations for Success **3 Units**
Pre-Collegiate
(May be taken for option of letter grade or Credit/No Credit.)
54 hours of lecture.
Advisory: Eligibility for ENGL 67 or READ 80
Provides a foundation for life-long learning that promotes greater self-awareness and success. Academic success strategies include text management, time management, listening, note taking, oral and written communication, test-taking, memorization, use of campus resources, and research methods.

STDY 85 — Focused Study Techniques **1 Unit**
(May be taken four times for credit.) Degree Appropriate
18 hours of lecture.
Advisory: Eligibility for ENGL 67
A single purpose course designed to support learning in either an academic field or in a vocation. Provides support in any one of the following: test taking, research process, time management, team building, methods of learning, memory, concentration, listening, note-taking, textbook reading strategies, or motivation. Students who repeat this course will improve skills through further instruction and practice.

STDY 100 — Student Achievement and Fundamentals of Learning **3 Units**
54 hours of lecture. Degree Appropriate, CSU
Advisory: Eligibility for ENGL 68 or READ 100
Designed to increase student success in transfer college level courses. Provides a systematic approach to advanced study techniques for academic success in higher education. Develops the steps leading to successful transfer/transition to four-year institutions or careers.

SURVEYING

SURV 1A — Surveying **3 Units**
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of lecture.
54 hours of lab.
Prerequisite: MATH 150 or equivalent high school courses
Surveying fundamentals; use and care of surveying instruments including steel tape, engineer's level, theodolite and total station; horizontal and vertical measurements; layout, traverse, area computations; analysis and adjustments of systematic and random errors; stadia surveying; mapping.

SURV 1B — Surveying **3 Units**
Degree Appropriate, CSU, UC
(May be taken for option of letter grade or Credit/No Credit.)
36 hours of lecture.
54 hours of lab.
Prerequisite: SURV 1A
Construction surveying; volumes; property surveying; control surveys; California coordinate system; horizontal and vertical curves; introduction to electronic, photogrammetric, and G.I.S. methods; mapping project; introduction to the method of least squares; land survey descriptions; astronomical observations.

THEATER ARTS

THTR 9 — Introduction to Theatre Arts **3 Units**
(CAN DRAM18) Degree Appropriate, CSU, UC
54 hours of lecture.
A comprehensive introduction to the theater, including the aesthetic, artistic, technical, and business aspects.

THTR 10 — History of Theatre Arts **3 Units**
54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: Eligibility for ENGL 1A
Designed to present an appreciative background to dramatic literature and to the development of dramatic art. Representative plays and the history and development of the living stage will be stressed.

THTR 11 — Principles of Acting I **3 Units**
(CAN DRAM 8) Degree Appropriate, CSU, UC
54 hours of lecture.
Introduction to the basic principles and techniques of acting as an artistic discipline. Analysis of the plot, characterization and language of the drama. Performances of laboratory scenes, readings and exercises.

THTR 12 — Principles of Acting II **3 Units**
(CAN DRAM22) Degree Appropriate, CSU, UC
54 hours of lecture.
Prerequisite: THTR 11
Advanced study of principles presented in DRMA 11. An investigation of acting techniques through the study and presentation of varied dramatic scenes.

THTR 14 — Stagecraft **3 Units**
(CAN DRAM12) Degree Appropriate, CSU, UC
(May be taken two times for credit.)
36 hours of lecture.
54 hours of lab.
Theory and practice of stage design and lighting. Practical work in scene design and construction and lighting layouts, with the opportunity to perform these tasks in actual theatre situations. By virtue of the wide range of productions staged by the department, students who repeat this course will increase their skills and proficiency.

THTR 15 — Play Rehearsal and Performance **2 Units**
(CAN DRAM16) Degree Appropriate, CSU, UC
(May be taken four times for credit.)
(May be taken for option of letter grade or Credit/No Credit.)
108 hours of lab.
Participation under faculty supervision in the planning, preparation and presentation of college sponsored dramatic presentations. Emphasis on acting with some technical theatre assignments. Students who repeat this course will improve skills through further instruction and practice.

THTR 16 — Theatrical Make-Up **2 Units**
(CAN DRAM14) Degree Appropriate, CSU, UC
36 hours of lecture.
36 hours of lab.
An introduction to the theory and practice of make-up for the stage. The student will gain practice in the design and application of straight, stylized character, and other make-up techniques.

THTR 17 — Acting for Television **3 Units**
 54 hours of lecture. Degree Appropriate, CSU, UC
Prerequisite: THTR 11
 Assists students to prepare for an occupation in the performing areas of television and film. Background, methodology and techniques of acting for the camera. Includes TV equipment and how to make it work for the TV actor; study of image, type and character with practical exercises and scenes in various styles such as TV drama, sit-coms, news, commercials.

THTR 18 — Technical Theater Practicum **1 Unit**
 (May be taken four times for credit.) Degree Appropriate, CSU, UC
 (May be taken for option of letter grade or Credit/No Credit.)
 54 hours of lab.
 Participation in the technical preparation and operation of productions presented to the community. The student will be involved in one or more of the following areas: stage scenery construction, stage lighting set up, property construction, stage sound set up, costume construction and make-up. Crew assignments will be given to the student upon enrollment. The availability of assignments is contingent upon the requirements of the production. Students who repeat this course will improve skills through further instruction and practice.

THTR 19 — Theatrical Costuming **3 Units**
 (May be taken two times for credit.) Degree Appropriate, CSU, UC
 36 hours of lecture.
 54 hours of lab.
 Theatrical costuming design and construction. Includes the study of costume history, principles of costume design, fibers and textiles, basic costume construction, and design rendering techniques. Costume crew assignments for major productions will provide practical instruction in actual performance demands on costumes and their proper maintenance. Class is suitable for people interested in costuming for theater, dance, film, television, and reenactments. Students who repeat this course will improve skills through further instruction and practice.

THTR 24 — Introduction to Theatrical Design **3 Units**
 36 hours of lecture. Degree Appropriate, CSU
 54 hours of lab.
Prerequisite: THTR 14
 Sketching and a variety of media techniques for scenic design for theatre arts. Development of a scenic floor plan, elevations and rendering. Application of basic techniques of drawing and drafting theatrical scenery. Color theory, research, design concept and design process to be studied in depth.

THTR 25 — Theatrical Playwriting **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
Advisory: Eligibility for ENGL 1A
 Playwriting for the stage. Students will create and critique their own plays, as well as study and critique plays from well known authors and productions. Includes basics of linear broken linear, episodic, 'A'-'B' and ritual structures.

THTR 60 — Children's Theatre **3 Units**
 (May be taken two times for credit.) Degree Appropriate, CSU
 (May be taken for option of letter grade or Credit/No Credit.)
 36 hours of lecture.
 72 hours of lab.
 A comprehensive study of theatre for the child audience in theory and practice. Specifically seeks to evaluate play production techniques and literature with an eye to the needs of an audience of children. Includes history of children's theatre, analysis of plays for children and actual experience in acting, directing and producing children's plays for public presentation. Students who repeat this course will improve skills through further instruction and practice.

THTR 99 — Special Projects in Theatre **2 Units**
 (May be taken four times for credit.) Degree Appropriate, CSU
 36 hours of lecture.
 To offer selected students recognition for their academic interests and ability and the opportunity to explore their disciplines in greater depth, the various departments from time to time offer Special Projects courses. The content of each course and the methods of study vary from semester to semester and depend on the particular project under consideration. Students repeating this course will make individual contracts of a more advanced nature with the instructor to ensure that proficiencies are enhanced.

TRANSPORTATION

TRAN 17 — Air Transportation **3 Units**
 54 hours of lecture. Degree Appropriate, CSU
Advisory: AERO 23
 Regulatory agencies and legislation within the airlines and general aviation. Structure and economic characteristics of the airline industry. Aviation career planning.

TRAN 19 — Air Law and Regulation **2 Units**
 36 hours of lecture. Degree Appropriate
 Regulations and liabilities of public and private air carriers. Domestic and foreign air law. Current law and anticipated changes.

TUTOR TRAINING

TUTR 10A — Introduction to Tutoring **1 Unit**
 Non-Degree Credit
 (May be taken for option of letter grade or Credit/No Credit.)
 18 hours of lecture.
Prerequisite: Eligibility for ENGL 1A
 Introduction to tutoring, with an emphasis on tutoring strategies, problem solving, and working with a diverse student population.

TUTR 10B — Tutoring in the English Language **1 Unit**
 Non-Degree Credit
 (May be taken for option of letter grade or Credit/No Credit.)
 18 hours of lecture.
Prerequisite: Eligibility for ENGL 1A
 Tutoring in the English language with an emphasis on approaches to working with students on written drafts and addressing the needs of non-native speakers.

TUTR 10C — Tutoring as a Supplemental Instructor **1 Unit**
 Non-Degree Credit
 (May be taken for option of letter grade or Credit/No Credit.)
 18 hours of lecture.
Prerequisite: Eligibility for ENGL 1A
 Tutoring as a Supplemental Instructor with an emphasis on tutoring in the classroom and in small groups under the supervision of a designated instructor.

TUTR 10D — Tutoring in Mathematics **1 Unit**
 Non-Degree Credit
 (May be taken for option of letter grade or Credit/No Credit.)
 18 hours of lecture.
Prerequisite: MATH 71 or MATH 72 or higher
 Tutoring in mathematics, with an emphasis on strategies to promote active learning using manipulatives and dealing with specific obstacles in developmental algebra.

WATER TECHNOLOGY

WATR 60 — Introduction to Water Systems **3 Units**
 54 hours of lecture. Degree Appropriate
 Water sources, hydrological cycle, pre-treatment, water mathematics, basic water chemistry, treatment plant processes, safety, disinfection, corrosion, bacteriology and the public health aspects of potable water. Distribution systems, wells, valves and pumps. Prepares the student for Grade I and II State Water Treatment Operator Certification and Grade I AWWA Water Distribution Operator Certification.

WATR 61 — Water Treatment **3 Units**
 54 hours of lecture. Degree Appropriate
Advisory: WATR 60 taken prior
 Emphasizes public health aspects of potable water supply, wells, process control procedures, chlorination systems, water softening, safety, review laboratory procedures, laboratory techniques and equipment, advanced water mathematics and State Health Department Title 22, Water Quality Standards. Prepares students for the Grade II and III State Water Treatment Operator Certification.

Course Descriptions

WATR 62 — Water Distribution **3 Units**
54 hours of lecture. Degree Appropriate
Advisory: WATR 60 taken prior
Water distribution systems operation, administration, safety, maintenance, introduction to Cross-connection Control Title 17. Prepares student for Grade II and III AWWA Distribution Operator Certification.

WATR 63 — Cross Connection Control – Certified Tester **3 Units**
54 hours of lecture. Degree Appropriate
Advisory: WATR 60 taken prior or concurrently
Offers knowledge necessary to understand the operation of and testing procedures for backflow prevention assemblies. Analyzes Title 17 of the California Administrative Code and Chapter 6 of the Uniform Plumbing Code as they relate to cross-connection control. Prepares students for County Health Department and AWWA certification as Backflow Prevention Device Testers.

WATR 64 — Cross Connection Control – Certified Specialist **3 Units**
54 hours of lecture. Degree Appropriate
Advisory: WATR 60 taken prior
Offers knowledge necessary to apply the principles of backflow prevention, as outlined in Title 17 of the California Administrative Code, to the administration of a cross-connection control program. Also teaches a student about the use of recycled water as outlined in Title 22 of the California Administrative Code. Prepares students who are otherwise qualified to take the AWWA Cross-Connection Specialist Certification Exam.

WATR 65 — Water Hydraulics and Instrumentation **3 Units**
54 hours of lecture. Degree Appropriate
Advisory: WATR 60 taken prior
Practical water supply hydraulics and instrumentation, with emphasis on distribution system capacity, hydraulic analysis, pumping analysis, customer service lines and meters, automation, instrumentation and control, system maintenance and records.

WELDING

WELD 30 — Metal Sculpture **2 Units**
(May be taken two times for credit.) Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
18 hours of lecture.
54 hours of lab.
For students interested in art seeking the proper operation of welding processes related to the sculpturing industry. Emphasizes the fundamentals of three-dimensional design. Includes demonstrations and exercises in welding as it relates to the art industry. Students who repeat this course will improve skills through further instruction and practice.

WELD 40 — Introduction to Welding **2 Units**
18 hours of lecture. Degree Appropriate, CSU
54 hours of lab.
Fundamentals of welding processes related to the areas of fabrication, construction, machine tool, aerospace and the transportation industries.

WELD 50 — Oxyacetylene Welding **2 Units**
18 hours of lecture. Degree Appropriate
54 hours of lab.
Oxyacetylene fusion welding, non-fusion welding and cutting. Develops understanding of and fundamental skills in modern welding practices.

WELD 51 — Basic Electric Arc Welding **2 Units**
18 hours of lecture. Degree Appropriate
54 hours of lab.
Advisory: WELD 50
Basic electric arc welding, weld symbols, standard electrode and alloy electrode selection, American Welding Society (A.W.S.) procedure for certification.

WELD 53A — Welding Metallurgy **3 Units**
54 hours of lecture. Degree Appropriate, CSU
Designed for students seeking a career in welding and welding inspection. Covers structure of matter, chemical, physical, and mechanical properties of metals, principles of alloying, solid state diffusion, plastic deformation, and heat treatment.

WELD 60 — Print Reading and Computations for Welders **3 Units**
54 hours of lecture. Non-Degree Credit
Reading prints and performing computations for welding fabrication operations. Interpreting and visualizing prints, title blocks, welding symbols, specifications, notes, and bills of materials. Computations necessary to calculate materials, costs, sizes, and fractional, decimal and metric conversions.

WELD 70A — Beginning Arc Welding **3 Units**
18 hours of lecture. Degree Appropriate
108 hours of lab.
Develops manipulative skills and techniques for the beginning student welder on the shield metal arc (SMAW) and the flux cored arc (FCAW) welding processes in the flat and horizontal positions using AC and DC welding currents on carbon steel.

WELD 70B — Intermediate Arc Welding **3 Units**
18 hours of lecture. Degree Appropriate
108 hours of lab.
Advisory: WELD 70A taken prior
A continuation of Beginning Arc Welding (WELD 70A). Emphasis is on welding high alloy steel with both SMAW and FCAW processes in the vertical and overhead positions. Designed to refine previously acquired welding skills.

WELD 70C — Certification for Welders **3 Units**
18 hours of lecture. Degree Appropriate
108 hours of lab.
Advisory: WELD 70A taken prior
Study of building construction for the advanced arc welding student. Special emphasis will be placed on welding symbols and the American Welding Society's (AWS) D1.1 and D1.3.

WELD 80 — Fabrication and Construction Welding **3 Units**
(May be taken two times for credit.) Degree Appropriate
18 hours of lecture.
108 hours of lab.
Advisory: WELD 40, WELD 51, WELD 70A
Theory and practical applications of welding used in industry and construction. Designed to adapt and upgrade skills to industry standards. Includes project models such as ornamental iron gates and fences and material storage components. Students who repeat this course will improve skills through further instruction and practice.

WELD 81 — Pipe and Tube Welding **3 Units**
(May be taken two times for credit.) Degree Appropriate
18 hours of lecture.
108 hours of lab.
Advisory: WELD 70B, WELD 70C
Advanced course designed to enable students with "all positions" welding skills in SMAW to apply welding skills to the pipe welding industry. Welding processes will include SMAW, GRAW, GMAW, FCAW on a variety of materials and configurations on subcritical and critical piping and tubing. Students who repeat this course will improve skills through further instruction and practice.

WELD 90A — Gas Tungsten Arc Welding **3 Units**
(May be taken two times for credit.) Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
18 hours of lecture.
108 hours of lab.
Advisory: WELD 70B taken prior
Advanced level class in Gas Tungsten Arc Welding (GTAW, also known as TIG) of steel, aluminum, CRES and exotic metals. All position welds with many surfaces and transitions.

WELD 90B — Semiautomatic Arc Welding Process **3 Units**
(May be taken two times for credit.) Degree Appropriate, CSU
(May be taken for option of letter grade or Credit/No Credit.)
18 hours of lecture.
108 hours of lab.
Advisory: WELD 70B taken prior
An integrated review of Semiautomatic Welding Processes including Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW), Submerged Arc Welding (SAW) with solid and tubular wires with and without gas shielding. All position welds with many varying thickness will be covered.

WELD 91 — Automotive Welding, Cutting and Modification **3 Units**
 Non-Degree Credit
 (May be taken for option of letter grade or Credit/No Credit.)
 18 hours of lecture.
 108 hours of lab.
Advisory: WELD 70B taken prior
 Instruction in the art of welding and cutting on metals commonly used in the automotive industry. Gas Metal Arc (MIG), Gas Tungsten Arc (GTAW), PlasmaArc cutting and oxyfuel cutting and welding will be covered.

WELD 96 — Work Experience in Welding **1 Unit**
 Degree Appropriate
 (May be taken four times for credit.)
 (May be taken for Credit/No Credit only.)
 75 hours of lab.
Prerequisite: Compliance with work experience regulations as designated in the college catalog
Advisory: WELD 70B
 Provides actual on-the-job experience in welding at an approved work site which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. Students who repeat this course will improve skills through further instruction and practice.

WELD 97 — Work Experience in Welding **2 Units**
 Degree Appropriate
 (May be taken four times for credit.)
 (May be taken for Credit/No Credit only.)
 150 hours of lab.
Prerequisite: Compliance with work experience regulations as designated in the college catalog
Advisory: WELD 70B
 Provides actual on-the-job experience in welding at an approved work site which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. Students who repeat this course will improve skills through further instruction and practice.

WELD 98 — Work Experience in Welding **3 Units**
 Degree Appropriate
 (May be taken four times for credit.)
 (May be taken for Credit/No Credit only.)
 225 hours of lab.
Prerequisite: Compliance with work experience regulations as designated in the college catalog
Advisory: WELD 70B
 Provides actual on-the-job experience in welding at an approved work site which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. Students who repeat this course will improve skills through further instruction and practice.

WELD 99 — Work Experience in Welding **4 Units**
 Degree Appropriate
 (May be taken four times for credit.)
 (May be taken for Credit/No Credit only.)
 300 hours of lab.
Prerequisite: Compliance with work experience regulations as designated in the college catalog
Advisory: WELD 70B
 Provides actual on-the-job experience in welding at an approved work site which is related to classroom instruction. A minimum of 75 paid or 60 non-paid clock hours per semester of supervised work is required for each unit of credit. Students who repeat this course will improve skills through further instruction and practice.

Section 11

Community Education



COMMUNITY EDUCATION DIVISION

The Community Education Division provides a broad range of courses serving students and community members. For students enrolled in noncredit courses and programs, Mt. San Antonio College provides matriculation services to assist individuals seeking to enter the workforce or access further education in the following categories: Basic Skills, English as a Second Language (ESL), Health & Safety, Programs for Adults with Disabilities, Citizenship, Older Adults, Parenting, and Short-term Vocational Programs.

Student Services

Admissions and Registration

For Community Education (noncredit) and Community Services (fee-based) courses, admission and registration are completed using a registration card. However, enrollment in ESL and/or Basic Skills courses REQUIRES assessment and orientation prior to registration (*see explanations, following*). Students may register for most courses at any time during the term, on a space available basis. Noncredit and fee-based courses are available to community members regardless of residency status.

Assessment

Basic Skills students are assessed prior to enrolling in courses. Additional assessments are available for specific needs. Basic Skills assessment services include assessment of academic skill levels, learning strengths, career paths and learning disabilities. For more information, contact **(909) 594-5611, ext. 4845**.

ESL students must be assessed prior to enrollment. Placement testing is offered by appointment year-round. Multilingual assistance is available. For more information, contact **(909) 594-5611, ext. 5235**.

Orientation

Basic Skills and ESL students must attend an orientation session prior to registration. Orientation sessions are generally offered immediately after assessment.

Counseling and Advisement

The Basic Skills and ESL departments provide counselors and educational advisors to serve their students. Assistance to all noncredit students includes development of Educational and Career Plans; identification of personal, academic and career goals; career skill practice and resources; transitioning to credit programs; and assessment of special needs.

Fees and Expenses

There is no tuition for noncredit adult education courses. However, some courses include a fee for materials provided to students. Community Services (fee-based) courses are not supported by State funding and require a student registration fee and occasionally a material fee to cover course supplies/handouts. In addition, students who park on the Mt. San Antonio College campus must have a valid, current parking permit. Permits may be purchased in Building 4, lower level. Books and supplies needed for a class are the responsibility of the student unless specifically noted as provided by a material fee.

PROGRAMS AND CENTERS

Basic Skills & Special Programs

This department works with local K-12 districts, county and State agencies to provide programs to populations with special needs and basic skills needs. Courses and services include:

- Basic skills remediation
- GED preparation and testing
- Adult High School Diploma Program
- High School Referral Program (high school make-up credit)
- Summer High School Enrichment Program
- Athlete Tutoring and Student Support (WIN Program)
- Parent Education courses
- Armed Services Vocational Aptitude Battery (ASVAB) preparation
- Support services to Careers in Childcare Program students
- Workforce Investment Act (WIA) programs
- High school and career counseling; educational advising

For more information on Basic Skills and Special Programs, contact **(909) 594-5611, ext 4845**.

English as a Second Language (ESL)

Classes are provided for English language learners at all levels of proficiency, from low literacy to advanced, transitioning to credit. Classes and services include:

- Assessment for level placement (Pre-Level 1 – Level 6)
- Core level classes focusing on integrated skills (grammar, listening, speaking, reading and writing)
- Skill-focused classes (Speaking A-C, Writing A-C)
- Specialized courses (TOEFL Preparation, Citizenship Preparation)
- Vocational ESL

- Contract ESL customized for the workplace
- Career guidance and counseling (Career Guidance Center, ESL Career Conference)

For more information on ESL programs, contact **(909) 594-5611, ext. 5235**.

Language Learning Center (LLC)

Mt. San Antonio College's state-of-the-art Language Learning Center provides a lab in which students may practice ESL and a variety of foreign languages, including Chinese, English, French, German, Italian, Japanese, Spanish and Sign Language. Located in the Learning Technology Center, (south door) room 264, the LLC is available on a noncredit and credit basis. Users of the LLC may register year-round. Offerings include:

- Interactive language software in all supported languages
- DVDs, videos, audio recordings
- Pronunciation software
- CATS testing for FAA and Chiropractic tests

For more information on the LLC, call **(909) 594-5611, ext. 4580**.

Older Adult Program

The Older Adult Program promotes lifelong learning and on-going career skills training by providing a wide range of courses and programs for the older adult population. Classes are offered in the arts, personal growth, physical and mental fitness, and vocational areas. For more information on Older Adult Programs, call **(909) 594-5611, ext. 5117**.

Training Source

The Training Source provides on-site, customized, short-term training courses for businesses, K-12 school districts, cities and agencies in the greater Los Angeles area. Programs are designed to meet specific client needs and are taught by college faculty members as well as industry professionals. For more information, call **(909) 468-3933**.

Exercise Science/Wellness Center

The Exercise Science and Wellness Center provides an exercise facility which includes cardio and strengthening equipment, a variety of exercise classes led by certified instructors, and specialized fitness testing. It welcomes community members as well as Mt. San Antonio College students and employees. Individuals should register in the Wellness Center. For more information, contact **(909) 594-5611, ext. 4625**.

Community Education

Health Careers Resource Center (HCRC)

The HCRC provides a state-of-the-art learning laboratory environment to:

- Develop new health-related skills/knowledge
- Update prior or current knowledge
- Participate in simulated clinical activities which will promote success in the health care industry.

The Center is open to credit and noncredit health career students, community health care workers/professionals, individuals preparing for health-related licensure or certification exams and any individual involved or interested in health-related careers. Campus programs/departments actively utilizing the Center include:

Technology and Health Division

- Medical Services – EMT, Paramedic, Physician's Assistant Prep
- Mental Health Technology
- Nursing
- Radiologic Technology
- Respiratory Therapy

Community Education

- Long-Term and Acute Certified Nursing Assistant (CNA)
- RN Re-Entry into Practice
- IV Therapy
- Health Care Interpreting
- International Health Worker
- Physical Therapy Aide. For more information, contact **(909) 594-5611, ext. 4778**
- Cardio Pulmonary Resuscitation (CPR) Training offering courses such as First Aid, Heartsaver, AED and more
 - Records, rosters and information updates per American Heart Association (AHA) requirements
 - Videos, text, manikins per AHA requirements. For more information, contact **(909) 594-5611, ext. 5196**. Other Community Education Services and Programs

Other Community Education Services and Programs

- Combined credit/noncredit courses and certificates
- Fee-based programs related to career development and personal enrichment for community members
- Youth Programs
- Vehicle Safety Programs (Motorcycle, Traffic School, Driver's Training)
- Community education fitness programs
- Farm Tours
- Wildlife Sanctuary Tours
- Planetarium Shows
- Study Skills Lab for Disabled Students Programs & Services
- San Gabriel Valley Training Center (serving developmentally disabled adults)

For more information regarding Community Education services and programs, contact **(909) 594-5611, ext. 4220**.

College Policies
and Notices

Section 12



COLLEGE POLICIES

Alcohol and Other Drugs

The possession or consumption of alcoholic beverages or illegal drugs prior to, or during any College-sponsored activity, on or off-campus, by any person attending, regardless of age, is forbidden by State law.

The Federal government has mandated that as of October 1, 1990, there will be no drug usage by students, staff, or faculty on college campuses anywhere in the United States. Please see the latest *Schedule of Classes* for the College's Alcohol and Other Drugs Policy.

Animals on Campus

Board Policy does not allow for any animals on campus except as provided for by the California Penal Code, Section 365.5 (specially trained guide, signal, or service dogs). Leaving a pet in a parked vehicle, no matter what provisions are made for its safety, may constitute unnecessary suffering or cruelty which is a violation of California Penal Code 597.

Campus Disturbances

In accordance with California Penal Code (P.C. 626.6), the willful disturbance of classes, College activities, or procedures is a misdemeanor.

Campus Hours

The College offers instruction between the hours of 6:30 a.m. and 10:00 p.m., Monday through Sunday. Office hours vary depending on the services provided. Refer to the latest *Schedule of Classes* or call for specific office hours.

Children on Campus

While on the campus of Mt. San Antonio College, children under 12 years of age who are not approved for enrollment must be directly supervised at all times by a responsible adult. Such children shall not be left unattended in College buildings, outdoor areas, or in private automobiles.

Classroom Visitors

No person may be allowed to attend a regularly scheduled class unless officially registered for that class. Permission to visit a class must be secured from the professor. A visitor shall not attend class on a regular basis. Examples of visitors include: guest speakers, student friends, potential students, or minor children of officially registered students. Unauthorized visitors may be removed from the classroom by request of the Division Dean or designee, or other manager of the Instruction or Student Services Team.

Dress Regulation

Students are expected to dress in accordance with commonly accepted standards of appropriateness. It is mandatory that shoes be worn as general campus attire.

Driving and Parking

Users of Mt. San Antonio College campus roads and parking areas must observe and obey all traffic laws of the State of California and the College traffic and parking regulations adopted pursuant to Section 21113 of the California Vehicle Code and the Mt. San Antonio College Board of Trustees.

All four-wheeled vehicles parked in designated student lots MUST bear a valid parking permit for the semester enrolled. The Student Parking Permit is valid in designated student lots except in the spaces controlled by parking meters or reserved signage. Free 30-minute parking is available north of the Bookstore, west of the Administration Building, and south of the Performing Arts Center. Permit parking regulations are strictly ENFORCED during the Fall, and Spring semesters and summer and winter sessions from 7:00 a.m. to 10:00 p.m. Monday through Thursday, and Friday 7:00 a.m. to 4:00 p.m.

Eye Protection

Pursuant to the Education Code, the following regulation regarding eye protective devices shall be observed: Students, teachers, and visitors shall wear approved eye protective devices in all classes, shops, and laboratories when they are engaging in or observing the use of hazardous materials likely to cause injury to the eyes. Such eye protective devices shall meet the requirements of the American Standards Association Safety Code.

Academic Honesty

All members of the academic community have a responsibility to ensure that scholastic honesty is maintained. Faculty has the responsibility of planning and supervising all academic work in order to encourage honest and individual effort, and of taking appropriate action if instances of academic dishonesty are discovered.

Honesty is primarily the responsibility of each student. The College considers cheating to be a voluntary act for which there may be reason, but for which there is no acceptable excuse. It is important to understand that collaborative learning is considered cheating unless specifically allowed for by the professor.

Cheating and Plagiarism

Cheating

Professors have the responsibility of planning and supervising all academic work to encourage honest and individual effort, and of taking appropriate action if instances of academic dishonesty are discovered. However, honesty is primarily the responsibility of each student. The College considers cheating to be a voluntary act for which there may be reasons, but for which there is no acceptable excuse. It is important to understand that collaborative learning is considered cheating unless specifically allowed by the professor. The term "cheating" includes but is not limited to:

- Plagiarism;
- Receiving or knowingly supplying unauthorized information;
- Using unauthorized material or sources;
- Changing an answer after work has been graded and presenting it as improperly graded;
- Illegally accessing confidential information through a computer;
- Taking an examination for another student or having another student take an examination for you; and
- Forging or altering registration or grade documents.

The professor who determines that a student has cheated may give the student a failing grade for the assignment or for the course, or may drop the student from the course. Since the student has failed to abide by the standards of academic honesty, the professor has a right to give an "F" for the assignment or the course even though the student may have successfully and, presumably, honestly passed the remaining portion of the assignment or course. If the professor issues a failing grade for the course or drops the student, the actions shall be reported to the Dean of Student Services, and Director of Student Life. An professor may also recommend that appropriate action be taken under provisions of the Administrative Regulations and Procedures on Student Discipline.

Plagiarism

"Plagiarism is a direct violation of intellectual and academic honesty. Although it exists in many forms, all plagiarism refers to the same act: representing somebody else's words or ideas as one's own. The most extreme forms of plagiarism are the use of material authored by another person or obtained from a commercial source, or the use of passages copied word for word without acknowledgment. Paraphrasing an author's idea or quoting even limited portions of his or her text without proper citation is also an act of plagiarism. Even putting someone else's ideas into one's own words without acknowledgment

may be plagiarism. In none of its forms can plagiarism be tolerated in an academic community. It may constitute grounds for a failing grade, probation, suspension, or expulsion."

"One distinctive mark of an educated person is the ability to use language correctly and effectively to express ideas. Faculty assign written work for the purpose of helping students achieve that mark. Each instructor will outline specific criteria, but all expect students to present work that represents the student's understanding of the subject in the student's own words. It is seldom expected that student papers will be based entirely or even primarily on original ideas or original research."

"Therefore, to incorporate the concepts of others may be appropriate with proper acknowledgment of sources, and to quote others directly by means of quotation marks and acknowledgments, is proper. However, if a paper consists entirely of quotations and citations, the paper should be rewritten to show the student's own understanding and expressive ability. The purpose of the written assignment (i.e., development of communication and analytic skills) should be kept in mind as each paper is prepared. It should not be evaded through plagiarism."*

* *Adopted, with permission of California State University, Los Angeles, from their policy printed in the 1987-88 General Catalog.*

Non-Discrimination Policy

Mt. San Antonio College provides opportunities for the pursuit of excellence for all students and staff through its educational programs and services. The purpose of all programs, services, activities, conferences and college-endorsed competitions is to enrich the quality of human life. The College will provide open access to a college education and all support services without regard to sex, race, color, religious creed, national origin, ancestry, age over 40, marital status, physical or mental disability (including HIV & AIDS), sexual orientation, or Vietnam Era Veteran Status. The lack of English language skills will not be a barrier to admission. Policies and grievance procedures for unlawful discrimination and complaint procedures for sexual harassment for students and employees may be obtained by contacting the following individuals:

Trinda Hoxie, Director

Human Resources/Affirmative Action Officer
Human Resources Office
Building 4, Room 230, Ext. 4225

Audrey Yamagata-Noji, Vice President

Student Services
Student Services Center, Ext. 4505

Carolyn Keys, Dean of Student Services

Building 9C, Room 1A, Ext. 4525

Sexual Harassment Policy

It is the policy of the Board of Trustees of Mt. San Antonio College to provide an educational, employment, and business environment free of unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct or communications constituting sexual harassment, as defined and otherwise prohibited by state and federal statutes.

Sexual Harassment is not only unlawful, but it shall be a violation of this policy for any employee, student, agent of the Board, or one who is authorized to transact business or perform other acts or services on behalf of the College to engage in sexual harassment. Any person who knowingly violates this policy will be subject to appropriate and immediate disciplinary action.

Standards of Conduct

Board Policy, Section 5500

Adopted 6/23/04

Copies of the Standard of Conduct Policy can be obtained in Building 9C.

The College President/CEO shall establish procedures for the imposition of discipline on students in accordance with the requirements for due process of the federal and State law and regulations.

The procedures shall clearly define the conduct that is subject to discipline, and shall identify potential disciplinary actions, including but not limited to the removal, suspension, or expulsion of a student.

The Board shall consider any recommendation from the College President/CEO for expulsion. The Board shall consider an expulsion recommendation in closed session unless the student requests that the matter be considered in a public meeting. Final action by the Board on the expulsion shall be taken at a public meeting.

The procedures shall be made widely available to students through the College catalog and other means.

The following conduct shall constitute good cause for discipline, including but not limited to the removal, suspension or expulsion of a student:

1. Causing, attempting to cause, or threatening to cause physical injury to another person.
2. Possession, sale or otherwise furnishing any firearm, knife, explosive or other dangerous object, including but not limited to any facsimile firearm, knife or explosive, unless, in the case of possession of any object of this type, the student has obtained written permission to possess the item from a College employee, which is concurred with by the College President/CEO.

3. Unlawful possession, use, sale, offer to sell, or furnishing, or being under the influence of, any controlled substance listed in Chapter 2 (commencing with Section 11053) of Division 10 of the California Health and Safety Code, an alcoholic beverage, or an intoxicant of any kind; or unlawful possession of, or offering, arranging or negotiating the sale of any drug paraphernalia, as defined in California Health and Safety Code Section 11014.5.
4. Committing or attempting to commit robbery or extortion.
5. Causing or attempting to cause damage to College property or to private property on campus.
6. Stealing or attempting to steal College property or private property on campus, or knowingly receiving stolen College property or private property on campus.
7. Willful or persistent smoking in any area where smoking has been prohibited by law or by regulation of the College.
8. Committing sexual harassment as defined by law or by College policies and procedures.
9. Engaging in harassing or discriminatory behavior based on national origin, religion, age, sex (gender), race, color, medical condition, ancestry, sexual orientation, marital status, physical or mental disability, or because a person is perceived to have one or more of the foregoing characteristics.
10. Willful misconduct that results in injury or death to a student or to College personnel or which results in cutting, defacing, or other injury to any real or personal property owned by the College or on campus.
11. Disruptive behavior, willful disobedience, habitual profanity or vulgarity, or the open and persistent defiance of the authority of, or persistent abuse of, College personnel.
12. Cheating, plagiarism (including plagiarism in a student publication), or engaging in other academic dishonesty.
13. Dishonesty, forgery, alteration or misuse of College documents, records or identification; or knowingly furnishing false information to the College.
14. Unauthorized entry upon or use of College facilities.
15. Lewd, indecent or obscene conduct on College-owned or controlled property, or at College-sponsored or supervised functions.
16. Engaging in expression which is obscene, libelous or slanderous; or which so incites students as to create a clear and present danger of the commission of unlawful acts on College premises, or the violation of lawful College administrative procedures, or the substantial disruption of the orderly operation of the College.

17. Persistent, serious misconduct where other means of correction have failed to bring about proper conduct.
18. Unauthorized preparation, giving, selling, transfer, distribution, or publication, for any commercial purpose, of any contemporaneous recording of an academic presentation in a classroom or equivalent site of instruction, including but not limited to handwritten or typewritten class notes, except as permitted by any College policy or Administrative Procedure.
19. Harassment of students and/or College employees that creates an intimidating, hostile, or offensive environment.
20. Violation of College rules and regulations including those concerning affiliate clubs and organizations, the use of College facilities, the posting and distribution of written materials, and College safety procedures.

Student Complaints/Grievance Process

Students are protected against capricious, arbitrary, unreasonable, unlawful, false, malicious or professionally inappropriate evaluations or behavior by a faculty member.

Student complaints may be classified as grievances and fall into two categories: Academic and Non-Academic. Academic grievances involve grades. To grieve a grade, a student must prove that the professor issued a grade by mistake, fraud, bad faith, or incompetence (Education Code 76224). Non-Academic grievances include: illegal discrimination, sexual harassment, financial aid, violation of College policies, any violation of Title IX or Section 504 related to students with disabilities.

Grievances must be filed within 60 business days of the alleged violation, or from the time that the grade leading to the complaint is posted. To begin the formal grievance process, students may pick up Grievance Procedures and forms from the Student Life Office, Building 9C. It is recommended that students meet with the Student Life Director regarding the grievance prior to starting the process since timelines are established for every step of the process and must be met precisely.

The process for filing and pursuing a grievance includes two levels: in **Level I** (informal level) the student picks up the grievance forms and official procedures from Student Life and attempts to resolve the problem by meeting first with the faculty member and then to the faculty member's department chair or immediate supervisor. If the complaint is not resolved at that level, the student will meet with the division dean in an effort to resolve the problem. In the event that the problem cannot be resolved within 10 business days, the student may proceed to **Level II** (formal grievance) in which the student after completing the forms takes all signed forms and documents to the Student Life Office within the established deadlines.

A Grievance Review Committee chaired by the Dean of Student Services will review the grievance documents. This Committee may forward the grievance for a hearing that provides for a formal hearing process to seek clarification from the parties involved. An appeal is possible if the student or faculty/staff member chooses to appeal the decision of the Committee. However, the decision made by the president or designee is final.

Smoking on Campus

Student, employee, and visitor health is a primary concern of Mt. San Antonio College. Because of the clear evidence of the harmful nature of smoke inhalation and because of the general concern over air contamination, Mt. San Antonio College in accordance with California State law, bans smoking within all campus buildings and in any outdoor area within twenty feet of any exterior exit or entrance to such a building. This includes all College-leased and College occupied buildings. Further, smoking is banned in the swimming pool area, Hilmer Lodge Stadium, and in all college vehicles.

Policy for Providing Academic Adjustments for Students with Disabilities

Under Federal and State laws, the College is required to make modifications to academic requirements and practices as necessary in order to ensure that they do not discriminate against a qualified student with a disability. The College is also required to have a policy and procedure for responding to students with verified disabilities who request academic adjustments. Students with disabilities have the right to receive reasonable academic adjustments in order to create an educational environment where they have equal access to instruction without fundamentally altering any course, educational program or degree. Copies of the Policy and Procedures for Providing Academic Adjustments for Students With Disabilities are available in Disabled Student Programs & Services, ext. 4290.

NOTICES

Equal Opportunity Statement

The Board of Trustees of Mt. San Antonio College has a commitment to establishing and maintaining a policy of equal educational and employment opportunities and prohibiting discrimination based on sex, race, color, religious creed, national origin, ancestry, age over 40, marital status, physical or mental disability (including HIV & AIDS), sexual orientation, or Vietnam Era Veteran Status. This commitment applies to educational programs, activities, service, and employment practices.

Notice of Students' Rights

Students at Mt. San Antonio College are notified annually of their rights under the act within this section of the *Catalog*. More detailed information on student rights is available from the Director, Admissions

and Records, including: 1) type of information and material contained within the student's educational record; 2) the official responsible for the maintenance of each type of record; 3) the procedure for student review and inspection of the educational record; 4) the procedure for challenging the contents of the educational record; 5) the charges to the student for reproducing copies of the record if requested; 6) the categories of information which the College has designated as Directory Information and to whom this information will be released unless the student objects; and 7) the rights of a student to file a complaint with the United States Department of Education concerning alleged failure of the College to comply with the provisions of the Act.

Federal Review Board

Students may file a complaint with the United States Department of Education, Room 5660, Independence Avenue, S.S., Washington, D.C. 20201, regarding alleged institutional violations of the Act.

Open Enrollment

All classes are open to all students who meet the course prerequisites and enrollment requirements, unless specifically exempted by statute. The College provides open access to all program offerings, opportunities, and support services without regard to sex, race, color, religious creed, national origin, ancestry, age over 40, marital status, physical or mental disability (including HIV and AIDS), sexual orientation, or Vietnam Era Veteran Status.

Public Safety

In compliance with the Clery Act, the College publishes an annual security report which contains information regarding campus crime statistics. This information may also be found on the website at www.mtsac.edu by clicking on Public Safety. Copies of the annual report can be obtained from the Public Safety Department, Building 4, Room 105. A Public Safety crime log is published bi-monthly in the student newspaper and brochures on Emergency Procedures are posted throughout the campus.

During the 2003-2005 calendar years, criminal offenses occurring on campus were reported to campus security authorities and local police agencies. Please see the Public Safety Department Statistical Crime Report listed in the box on the next page.

Emergency Procedures

Students and staff should report serious crimes and emergencies, i.e., fire/medical, occurring on campus to the Public Safety Department or call 911. When using an on-campus extension, call 9-911. Incidents may be reported to Public Safety by calling **(909) 594-5611, ext. 4555**, 24 hours a day. During normal business hours, Public Safety may be contacted at Building 4, Room 105, or by calling ext. 4230. The Public Safety Department is located at the southeast portion of the campus off

Bonita Drive in Building 48. Public telephone locations on campus have at least one phone that is equipped with a red emergency button that is a direct line to the Mt. SAC Public Safety Office during and after business hours. In the event of an emergency, students and staff are requested to make a prompt and accurate report to the Public Safety Department.

Enforcement

The Mt. San Antonio College Public Safety Department has the authority to enforce the Student Discipline Code of Conduct under the Education and Penal Codes of the State of California; and is the liaison with local police and sheriffs departments in cases of criminal actions.

Mt. San Antonio College District incident reports are not official police reports. If an official police report is required, the Los Angeles County Sheriffs Department in Walnut is the appropriate agency to contact.

Crime Prevention

The Public Safety Department's primary responsibility is the safety and security of all members of the College community. Every effort is made to inform students and staff of criminal activity or any other concern that may be an immediate threat to the safety and security of those on campus. Information and workshops on crime prevention are made available to College students and staff. It is the responsibility of every member of the campus community to act in ways that promote the safety of self, others, and the protection of District property.

Campus Emergency Phone System

Mt. San Antonio College has installed a campus wide emergency phone system. This system is divided into two primary segments. The inner campus system consists of emergency phones that are placed on the outside of selected campus buildings and are identified by the familiar blue light affixed to the top of the phone housing. The second segment of emergency phones consists of stand-alone emergency phone towers, located in open campus spaces, primarily in campus parking lots. These phone towers are identified by a blue light affixed to the top of the tower.

Use of any of these emergency phones will connect the user to Campus Security during normal business hours, located in Building 4. During hours when the campus is closed, the Emergency phones will connect the user directly to a cell phone carried by Campus Security Officers who are on duty 24 hours a day, 7 days a week.

Student Rights and Privacy Act

Following is a summary of the Mt. San Antonio College policy related to the Family Educational Rights and Privacy Act of 1974, O.L. 93-380, and Chapter 1297, Statutes of 1976, State of California:

Access to Educational Records

All former and present students have the right to review and inspect their educational records in the Office of Admissions and Records provided they make a written request fifteen (15) days in advance. Such a review will be under the direct supervision of a classified or certificated employee in the Admissions and Records Office. Expressly exempted from the right of review and inspection are the following materials:

1. Financial records of the parents of the student(s).
2. Confidential letters and statements of recommendation maintained by the College on or before January 1, 1975, provided that such letters or statements are not used for purposes other than those for which they were specifically intended.
3. Records of instructional, supervisory, counseling, and administrative personnel which are in the sole possession of such personnel and are not accessible or revealed to any other person except a substitute.
4. Records of employees of Mt. San Antonio College, made and maintained in the normal course of business which relate exclusively to such person in that person's capacity as an employee, are not available for use for any other purpose.
5. Records of students made and maintained by the Student Health Services, the College nurse, the College physician, and the College therapist, which are used in the treatment of students and are not available to anyone other than persons providing such treatment. However, such a record may be personally reviewed by a physician or other appropriate professional of the student's choice.

Release of Educational Records Information

1. Any release of a student's educational records, with the exception listed below, must be made with the student's written consent.
2. The College may release copies of or otherwise divulge material in the student's educational records only to the official agencies, groups, officials, or individuals specifically mentioned below:
 - a. College staff members; provided that such employees have a legitimate educational interest to inspect such a record.
 - b. Representatives of the Comptroller General of the United States, the Secretary of Education, and administrative head of an educational agency, state education officials, and the United States Office of Civil Rights, where such information is necessary to audit a program.
 - c. Accrediting organizations in order to carry out their accrediting functions.
 - d. Organizations conducting studies on behalf of the institution.
 - e. Officials of other schools or school systems in which the student seeks or intends to enroll subject to the rights of students.

PUBLIC SAFETY DEPARTMENT STATISTICAL CRIME REPORT

Violation	2003	2004	2005
Murder	0	0	0
Rape	0	1	0
Robbery	1	1	0
Assault	13	15	5
Weapons Violation	5	1	3
Hate Crimes	0	0	0
Trespass	2	0	0
Burglary	15	11	11
Burglary-Vehicle	38	19	16
Theft	84	54	44
Theft-from Vehicle	7	8	14
Stolen Vehicle (GTA)	14	21	18
Vandalism	21	18	23
Liquor Law Violations	2	0	0
Illegal Drugs	5	1	1
Yearly Totals	208	150	135

- 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 Director, Admissions and Records, within fifteen (15) days of the opening day of each semester or session that the student does not want such information released.
- c. The College reserves the right to limit or deny the release of specific categories of directory information based upon a determination of the best interests of the student(s).

Transfer of Information to Third Parties

Educational records or personal information transferred to other institutions or agencies will not be transferred to a third party without the written consent of the student.

Catalog Rights

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

Students may choose to qualify for graduation (G.E. and major) under the requirements in effect at either:

- 1. the time they entered the college, *or*
- 2. they may use any catalog thereafter, as long as the student maintains continuous enrollment.
- 3. continuous enrollment is defined as attendance during every regular semester (fall and spring) after initial enrollment at Mt. San Antonio College.

Continuous Residence

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

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

Student Right-to-Know Rates

Completion Rate: 26.1%

Transfer Rate: 25.9%

From 1996 COHORT Data

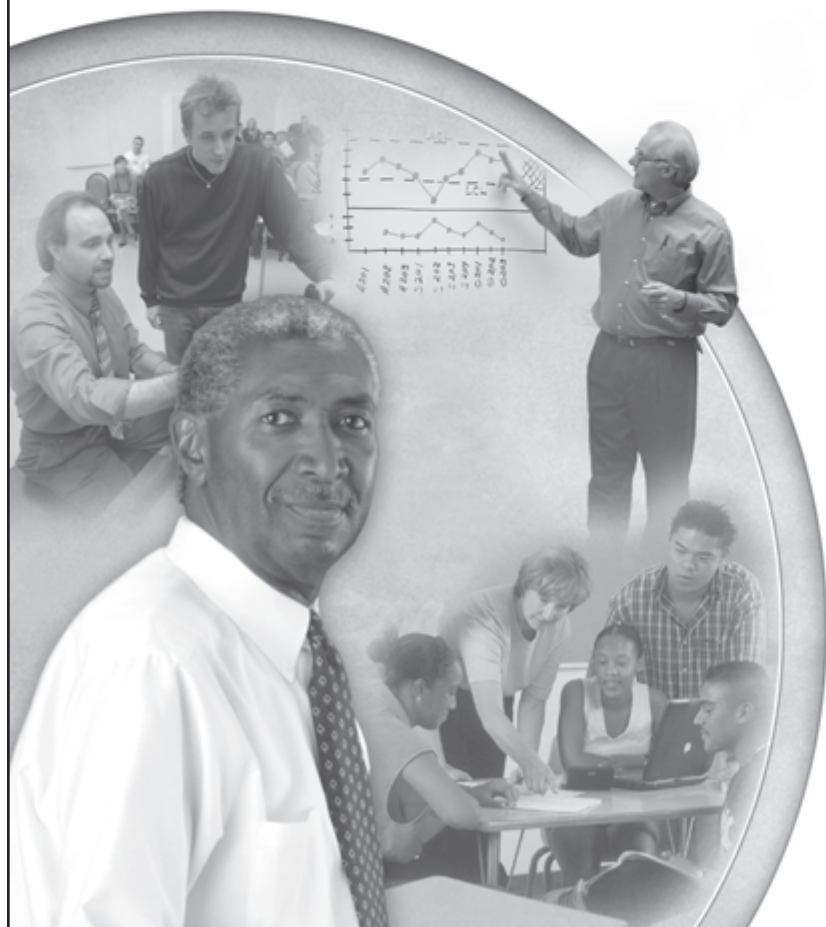
In compliance with the Student-Right-to-Know and Campus Security Act of 1990 (Public Law 101-542), it is the policy of the Mt. San Antonio Community College District and Mt. San Antonio College to make available its completion and transfer rates to all current and prospective students. Beginning in Fall 1996, a cohort of all certificate-, degree-, and transfer-seeking first-time, full-time students were tracked over a three year period. These rates do not represent the success rates of the entire student population at Mt. San Antonio College, nor do they account for student outcomes occurring after this three-year tracking period.

Based upon the cohort defined above, 26.1 percent attained a certificate or degree or became 'transfer- prepared' during a three year period, from Fall 1996 to Spring 1999. Students who are 'transfer-prepared' have completed 56 transferable units with a GPA of 2.0 or better.

Based on the cohort defined above, 25.9 percent transferred to another postsecondary institution, (UC, CSU, or another California Community College) prior to attaining a degree, certificate, or becoming 'transfer-prepared' during a five semester period, from Spring 1997 to Spring 1999.

The Faculty

Section 13



The Faculty

A

Adcox, Nancy M. (1974)

Mathematics, Computer Science
A.A., Mt. San Antonio College
B.S., M.S., California State Polytechnic University,
Pomona

Alexander, Carolyn (1991)

Art, Animation & Broadcasting
B.A., Scripps College
M.F.A., Tyler School of Art, Temple University

Allen, Jerry B. (1971)

History, Art History, Geography, Political Science
B.A., M.A., Brigham Young University
Ph.D., Claremont Graduate School
J.D., Loyola University School of Law

Allende, Kristina (2001)

English, Literature & Journalism
A.A., Mt. San Antonio College
B.A., M.A., California State University, Fullerton

Allen-Kodama, Linda (1991)

Art, Animation & Broadcasting
A.A., Los Angeles City College
B.A., California State University, Long Beach
M.F.A., California State University, Fullerton

Al-Malood, Fawaz (2003)

Family & Consumer Sciences
B.S., University of South Carolina
M.B.A., Columbus University, Mississippi
Ph.D., Pacific Western University, Hawaii

Alvarez-Galvan, Maya (2000)

American Language
B.A., M.A., California State University,
Los Angeles
Ph.D., University of Southern California

Ammirato, Joseph S. (1997)

Photographics
B.F.A., University of Utah

Anderson, Cynthia B. (1986)

Biological Sciences
B.S., Arizona State University
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Anderson, Daniel P. (2000)

Physics, Engineering
B.S., University of California, Los Angeles
M.S., California State Polytechnic University,
Pomona

Anderson, Richard (1992)

Air Conditioning & Welding
A.S., Mt. San Antonio College

Anderson-Perry, Carolyn (2004)

Nursing
A.S.N., Los Angeles Southwest College
B.S.N., California State University,
Dominguez Hills
M.S.N., University of Phoenix

Andrade, Renée (1984)

Foreign Languages
A.A., Los Angeles City College
B.A., California State University, Los Angeles
M.A., Ph.D., University of California, Irvine

Andrews, Barry (2001)

Computer Information Systems
B.S., Indiana University
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Ano, Gene (2006)

Psychology, Education
M.A., Ph.D., Bowling Green State University

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Director, Basic Skills
B.A., Pitzer College
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Archibald, Jeffrey D. (2000)

Communication
B.A., Cornell University
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Arterburn, Pamela (1986)

English, Literature & Journalism
B.A., M.A., California State Polytechnic University,
Pomona

Arvidson-Perkins, Genene (1988)

Nursing
A.S., Mt. San Antonio College
B.S., California State University, Fullerton
M.S., California State University, Los Angeles
PHN Certificate

Austin, Jerry D. (2003)

Director, Fire Technology
A.A., Santa Ana College
B.V.E., California State University, Long Beach
M.A., Chapman University

Avila, Rocio (2006)

English, Literature & Journalism
B.A., California State Polytechnic University,
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Bacigalupi, Stacy (2006)

Psychology, Education
B.A., University of California, Santa Barbara
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Bartman, Sydney (1986)

English, Literature & Journalism
A.A., Mt. San Antonio College
B.A., University of La Verne
M.A., University of California, Riverside

Bauch, Helen L. (1988)

Foreign Languages
B.A., St. Louis University
M.A., Bowling Green State University

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Chemistry
B.S., Ohio University
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B.A., California State University, Los Angeles
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Beeman, Laura (1996)

Physical Education
B.A., California State University, San Bernardino
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Dean, Physical Education
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Pomona

Blake-Judd, Jemma (1990)

English, Literature & Journalism
B.A., M.A., California State Polytechnic University,
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Blyzka, John V. (2001)

Computer Information Systems
B.S., University of California, Irvine
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Mathematics, Computer Science
B.S., University Alexandru Ioan Cuza of Iasi
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Boehner-Staylor, Maya (2001)

English, Literature & Journalism
B.A., California State University, Los Angeles
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Biological Sciences
A.A., Mt. San Antonio College
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Pomona
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Boryta, Mark (2001)

Earth Sciences, Astronomy
B.A., Amherst College
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Bowen, Melinda (2006)

Physical Education/Head Coach, Women's Soccer
B.A., California State Polytechnic, Pomona
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Music
B.A., University of California, Santa Barbara
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- Bower, Patricia M. (1990)**
Learning Assistance
B.S., M.A., University of California, Los Angeles
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English, Literature & Journalism
B.A., Southern Illinois University
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- Bradley, Julie (2005)**
Disabled Student Programs & Services
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- Brantingham, John (2002)**
English, Literature & Journalism
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Pomona
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- Braver, Lane (1987)**
Medical Services
A.A., Santa Monica College
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M.S.H.P.E., Western University, Pomona
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Earth Sciences, Astronomy
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Pomona
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American Language
B.A., Dana College
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TESOL Certificate, California State University,
Fullerton
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English, Literature & Journalism
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Art, Animation & Broadcasting
B.F.A., Art Center College of Design
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Art, Animation & Broadcasting
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B.S., Northern Illinois University
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B.A., Pitzer College
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English, Literature & Journalism
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History, Art History, Geography, Political Science
B.A., M.A., M.F.A., Ph.D., University of California,
Los Angeles
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Earth Sciences, Astronomy
B.S., San Diego State University
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Earth Sciences, Astronomy
M.S., San Jose State University
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Learning Assistance
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Business Administration
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History, Art History, Geography, Political Science
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English, Literature & Journalism
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Radiologic Technology
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Certified Radiologic Technologist California
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English, Literature & Journalism
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History, Art History, Geography, Political Science
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Estes, George C. (1973)

Agricultural Sciences
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San Antonio College B.S., M.S.N., C.N.S., California State University, Dominguez Hills</p> <p>Fleischer, Anne (2006) <i>Communication</i> B.A., Texas Tech University M.A., California State University, Long Beach</p> <p>Ford, Kelly (2001) <i>Physical Education</i> A.S., Central Arizona College B.S., University of Oklahoma M.Ed., Azusa Pacific University</p> <p>Foster, Dyrell W. (2004) <i>Director, Student Life</i> B.S. University of California, Davis M.S., California State University, Fullerton</p>	<p>Frahs, Paul (2004) <i>English, Literature & Journalism</i> B.A., State University College, Potsdam, New York M.A., University of California, Irvine</p> <p>Franko, Joseph (2002) <i>Mathematics, Computer Science</i> B.S., Iowa State University M.S., California Polytechnic University, Pomona</p> <p>Fulbright Dennis, Wanda (1990) <i>Counseling</i> B.A., Fresno Pacific College M.S., California State University, Los Angeles Ed.D., University of La Verne</p> <p>Fuller, Luisa (2001) <i>Learning Assistance</i> B.S., University of San Francisco M.A., Azusa Pacific University</p> <p>G</p> <p>Gagnon, Cathy (1987) <i>Medical Services</i> A.A., A.S., Mt. 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San Antonio College B.A., M.Ed., University of LaVerne</p> <p>Gonzalez, Gail (1999) <i>Mental Health Technology</i> B.S.N., Montana State University</p> <p>Graham, Chris Giles (1991) <i>Mathematics, Computer Science</i> B.A., Pomona College M.S., Chadron State College M.S., California State University, Los Angeles Ph.D., Claremont Graduate University</p> <p>Greco, Victoria (1999) <i>Disabled Student Programs & Services</i> B.A., California State University, Fullerton M.A., California State University, San Bernardino</p> <p>Greenwood, Ralph (1975) <i>History, Art History, Geography, Political Science</i> B.A., M.A., California State University, Los Angeles Ph.D., Northern Arizona University</p> <p>Griffith, Hugh M. (1998) <i>Mathematics, Computer Science</i> B.A., University of California, Berkeley M.S., California State University, Los Angeles</p>	<p>Grimes-Hillman, Michelle (2000) <i>Psychology, Education</i> B.A., M.A., California State University, Fullerton</p> <p>Guth, Scott A. (1990) <i>Mathematics, Computer Science</i> A.A., San Bernardino Valley College B.S., M.S., California Polytechnic State University, San Luis Obispo</p> <p>H</p> <p>Hall, Sushma S. (1990) <i>Sociology, Philosophy</i> B.A., M.A., University of Hawaii</p> <p>Hanson, Grace (1996) <i>Director, Disabled Student Programs & Services</i> B.A., M.A., California State University, Long Beach Transition Services for Individual with Disabilities Certificate</p> <p>Harper, Michael W. (2000) <i>English, Literature & Journalism</i> B.A., M.A., San Diego State University</p> <p>Hatch, Rebecca (2001) <i>Sociology, Philosophy</i> B.A., California Lutheran University M.S., Ph.D., University of Southern California</p> <p>Heneise, John W. (1985) <i>Dean, Technology & Health</i> A.S., Long Beach City College B.A., California State University, Long Beach M.Ed., California State Polytechnic University, Pomona</p> <p>Henkins, Kathryn (1987) <i>English, Literature & Journalism</i> B.A., University of Redlands M.A., California State University, Los Angeles M.A., California State University, Fullerton Ph.D., Claremont Graduate School</p> <p>Hernandez, Alina (1988) <i>Counseling</i> A.A., Santa Ana Community College B.A., M.A., California State University, Fullerton</p>
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English, Literature & Journalism
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American Language
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TESOL Certificate

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Accounting & Management
B.S., California State Polytechnic University,
Pomona
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Architecture & Engineering Design Technology
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M.Arch., University of Minnesota
NCARB, National Council of Architectural
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B.S., Slippery Rock University
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Chemistry
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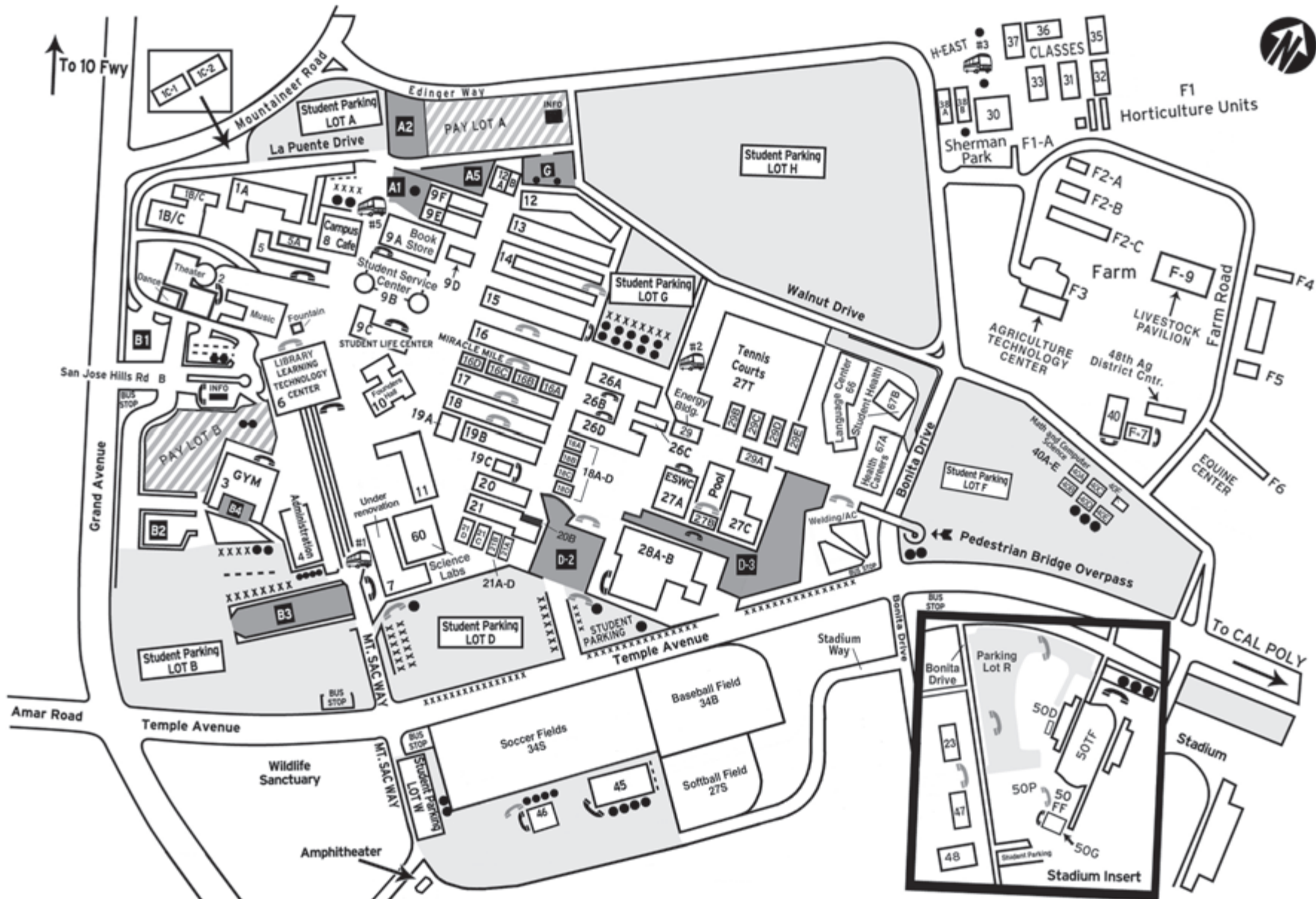
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MT. SAN ANTONIO COLLEGE CAMPUS MAP

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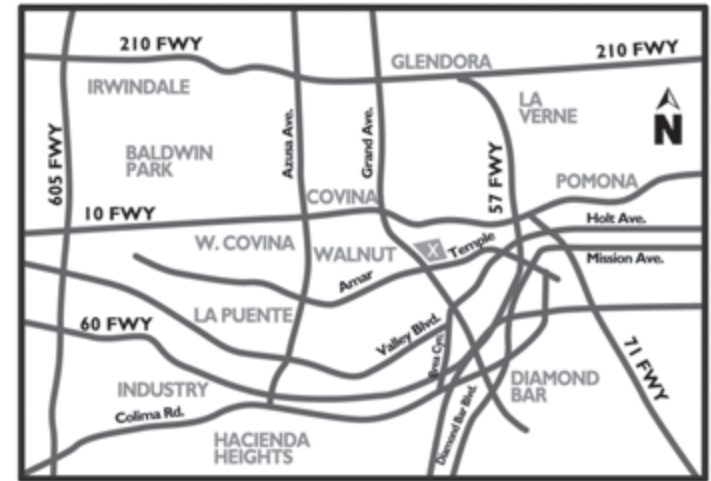
Due to construction, this map changes frequently. Please check the Mt. SAC website for the latest version of the campus map.

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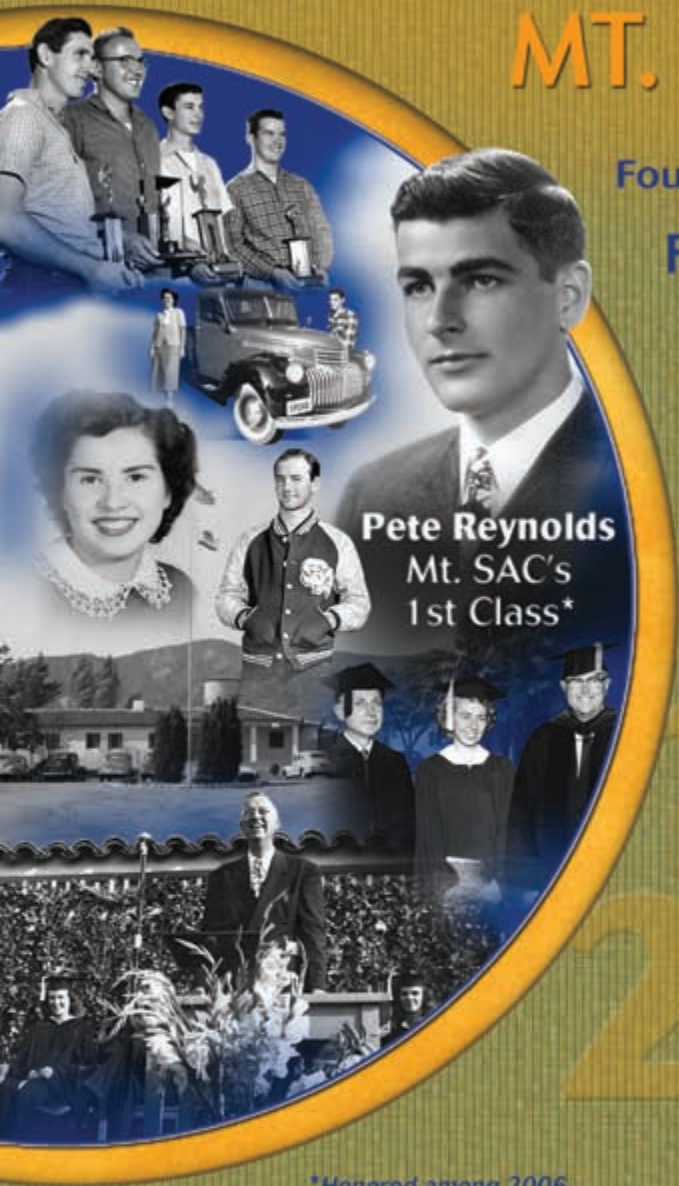
*NOTE: ONE PHONE AT EACH LOCATION IS SET-UP FOR AUTO DIAL TO SECURITY AT NO CHARGE FOR EMERGENCY USE ONLY

MT. SAC Turns **60** in **06**!

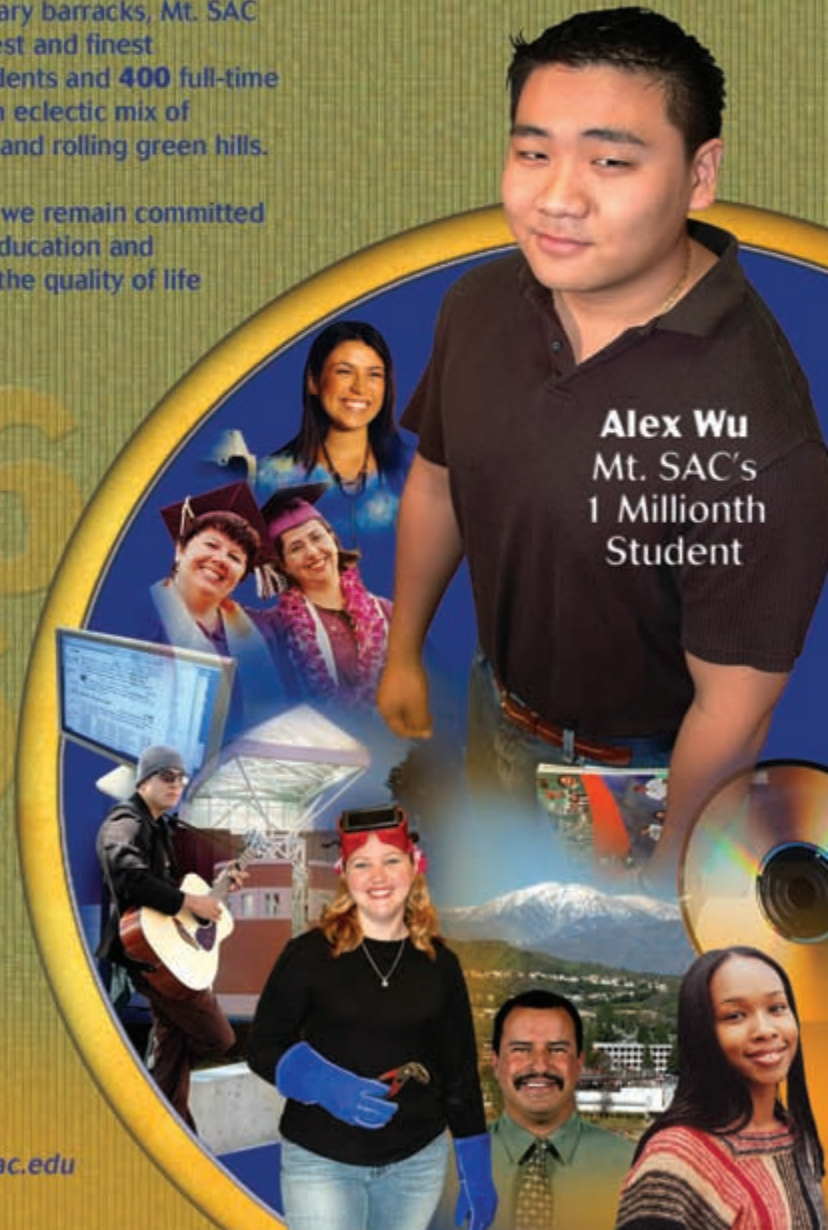
Founders Day: Saturday, September 16

From its humble beginnings with only 23 faculty members teaching the first 635 students in a collection of former military barracks, Mt. SAC has grown to become one of the nation's largest and finest community colleges with nearly **40,000** students and **400** full-time instructors. The 420-acre campus is now an eclectic mix of traditional and contemporary architecture and rolling green hills.

As we advance toward the next 60 years, we remain committed to providing the **finest** undergraduate education and career/professional training to enhance the quality of life for our students and our community.



Pete Reynolds
Mt. SAC's
1st Class*



Alex Wu
Mt. SAC's
1 Millionth
Student

**Honored among 2006
Distinguished Alumni
of the Year.*

MT. SAC
1946-2006 **60**

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