President's Message

San Diego Miramar College, long known for its friendly campus climate and emphasis on quality teaching and services, is also a college that is on the move. In the next two years, we will see some major new construction on campus . . . including even more student parking, an Advanced Transportation Technology Center, and a large Science/Technology Classroom Building. In the past few years, as our student population has grown dramatically, we’ve added courses, programs, clubs, athletics, activities, and online learning options so we can best meet the needs of the students who come to us to prepare for transfer or to prepare for the jobs of today and the future.

Students interested in CSU or UC systems will find a smooth transfer path through Miramar College. Using one of several transfer guarantee options, students move easily to a four-year university after completing their first two years at Miramar.

Those interested in preparing for a new career, or bolstering skills to increase success in their current job, will find many associate degree and certificate programs in a wide variety of fields at Miramar College. In addition, we are proud of our continued role in serving as the Regional Public Safety Training site for our county and region. In the past year, we have expanded our partnerships to include military and security collaborations.

Miramar College provides you with a full campus life and our local community with meaningful educational programs. Student government and student clubs, a Speakers’ Bureau, annual campus fairs, sports, and our popular Friday night Evening with the Experts series are a few activities available.

If you’re looking for a great college with the highest standards of quality teaching and unsurpassed caring, in an atmosphere of friendliness and warmth, you belong at Miramar College. We look forward to meeting you.

Sincerely,

Dr. Pat Keir, President Miramar College

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Welcome to Miramar College

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Assistant Chancellor, Student Services

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Assistant Chancellor, Facilities Services

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San Diego Miramar College
Administrative and Supervisory Personnel

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Vice President, Instruction ........ Pamela Deegan
Vice President, Student Services ...... Robert Garber
Business Manager .................. Peggy Manges
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Dean, Public Service ................ James Palmer
Dean, Business, Math & Science ...... Berta Cuaron
Associate Dean, Advanced Technology
Transporation Center ................ Gregory Newhouse
Dean, School of Technical Careers
and Workforce Initiatives .......... Mary Benard
Dean, Student Affairs & Matriculation .................. Julianna Rodriguez
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Admissions & Records Officer ....... Dana Andras
Counseling Dept. Chair .......... Rick Cassar
CalWORKS .................... Joan Thompson
DSPS Coordinator ................ Kathleen Doorly
EOPS Coordinator ................. Joan Thompson
Financial Aid Officer .............. Ruthy Ofina
Information Officer ............... Sandi Trevisan
The PLAce Director ............... Diana Fink
Transfer Center Coordinator ... Jodi Corliss
Job Placement Officer .......... Joseph Hankinson
TRIO Director ................ Alejandro Cuatok
San Diego Community College District Board of Trustees (from left, back row) Rich Grosch, Chancellor Augustine P. Gallego, Peter Zschiesche and (front row) Bill Schwandt, Maria Nieto Senour, Marty Block.
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Academic Calendar 2003-2004

Fall Semester 2003

16-WEEK SEMESTER: Fall Classes September 2, 2003 - December 20, 2003

SPECIAL DATES

June 13, 2003 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Final day to file an application for admission for the Fall semester and receive an appointment in the mail to register by telephone or online. Applications filed after this date will be assigned a registration appointment in the Admissions Office.

September 1, 2003 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . RESIDENCE DETERMINATION DATE (APPLIES TO ALL SESSIONS)

September 1, 2003 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Holiday - Labor Day

October 24, 2003 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Last day to file a petition for graduation for an Associate Degree or Certificate of Achievement for June or Summer 2004 graduation in order to receive an evaluation prior to beginning of Spring semester.

November 10, 2003 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Holiday - Veterans Day

November 27 & 28, 2003 . . . . . . . . . . . . . . . . . . . . . . . . . Holiday - Thanksgiving**


Spring Semester 2004

16-WEEK SEMESTER: Spring classes February 2, 2004 - May 29, 2004

SPECIAL DATES

Date to be determined . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Final day to file an application for admission for Spring semester and receive an appointment in the mail to register by telephone or online. Applications filed after this date will be assigned a registration appointment in the Admissions Office.

February 1, 2004 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . RESIDENCE DETERMINATION DATE (APPLIES TO ALL SESSIONS)

February 13, 2004 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Holiday - Lincoln's Day**

February 16, 2004 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Holiday - Washington's Day

February 27, 2004 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Last day to file a petition for graduation for an Associate Degree or Certificate of Achievement for June or Summer 2004 completion

April 5 - 10, 2004 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Spring Recess

** No Saturday or Sunday classes after a Friday holiday. No Sunday classes before a Monday holiday.

Note: Holidays apply to all sessions.
Summer Session 2004

Summer classes June 14, 2004 - August 7, 2004

SPECIAL DATES
June 13, 2004 . . . . . . . . . . . . . . . . . . .RESIDENCE DETERMINATION DATE (APPLIES TO ALL SESSIONS)
June 18, 2004 . . . . . . . . . . . . . . . . . . .Last day to file a petition for graduation for an Associate Degree or
Certificate of Achievement for Completion in Summer 2004
July 5, 2004 . . . . . . . . . . . . . . . . . . . .Holiday - Independence Day

** No Saturday or Sunday classes after a Friday holiday. No Sunday classes before a Monday holiday.
History

San Diego City College, San Diego Mesa College and San Diego Miramar College are public, two-year community colleges administered by the San Diego Community College District. Also under the auspices of this district are the Continuing Education division with six major centers throughout San Diego, and the Educational Cultural Complex which offers both college and continuing education courses. These educational programs carry out the charge made by the voters of San Diego in 1972, that the San Diego Community College District provide education for all high school graduates and adults 18 years of age and older in the District. This charge includes providing adult basic education through sophomore-level college degree programs, with both academic and vocational curricula.

Community college education in San Diego can be traced to 1914 when the Board of Education of the San Diego City Schools authorized post-secondary classes for the youth of San Diego. Classes opened that Fall at San Diego High School with four faculty members and 35 students. This was the beginning of City College which is now in its 83rd year. For twenty-five years the Junior College program was located at San Diego State University. In 1938, the San Diego Vocational Junior College was established to offer training in technical-vocational skills to post-high school students. The following year the San Diego Evening Junior college was set up to provide college classes in the evening for adults unable to attend day classes.

In 1964, San Diego Mesa College was opened to 1,800 students. Five years later, in 1969, San Diego Miramar College opened on 140 acres in what was then undeveloped land north of the Miramar Naval Air Station, now known as Mira Mesa. Unlike City and Mesa colleges which offered a range of general education classes, Miramar College began by concentrating on law enforcement and fire science training. It has since broadened its curriculum to include the general education college courses needed by students in the rapidly growing northern area of the city.

In November 1972, the voters approved separating the San Diego Community College District from the San Diego Unified School District. The first election of community college district trustees was held in November 1973. Nineteen seventy-six brought the opening of a unique district campus, the Educational Cultural Complex, dedicated to offering both college and continuing education classes to the multicultural population surrounding its Ocean View Boulevard site. In 1979-80 the administration of the Evening College program was merged with those of the day college programs at San Diego City, San Diego Mesa and San Diego Miramar Colleges.

With both college and continuing education programs, the San Diego district is the second largest community college district in California and offers a choice of educational programs unparalleled in the region.

Statement of Philosophy

The general education program at the colleges in the San Diego Community College District is designed to broaden students’ knowledge and their understanding of methods of gaining knowledge in a variety of disciplines and to develop students’ abilities in critical thinking, in oral and written communication, and in mathematics.

The awarding of an Associate Degree symbolizes an attempt on the part of the college to lead students through patterns of learning experiences designed to develop an awareness of other cultures and times; to achieve insights gained through experience in thinking about ethical problems; and to develop the capacity for self-understanding. In addition to these accomplishments, students should possess sufficient depth in some field of knowledge to contribute to lifetime interest.

Mission Statement

Our mission is to prepare students to succeed in a world of dynamic change by providing an environment which values excellence in teaching, learning, innovation and partnerships in a setting that celebrates diversity.

Values

We at Miramar College value . . .

- Student access, learning and success
- Preparing students for degrees, jobs, careers and transfer
- The ability to recognize and respond to opportunities
- A collegiate college community with mutual respect, courtesy and appreciation
Accomplishments of individuals, groups and the college as a whole
Diversity of our students, staff, faculty and programs
Creativity and excellence in teaching, learning and service
Collaboration and partnerships
Shared governance and communication

Vision

- Student learning and success will be the focus of all we do.
- Miramar College will develop as a college that identifies student access, learning and success as the touchstone to guide planning, set priorities and measure effectiveness.
- Miramar College will have a beautiful campus that attracts students and is user friendly.

- Miramar College will be a hub of education, diversity, recreation and services to the community.

Goals

1) Focus efforts on student learning.
2) Deliver instruction and services in formats and at sites that best meet student needs.
3) Provide a campus, programs and co-curricular activities at Miramar College that fully meet the comprehensive needs of college students.
4) Initiate and strengthen beneficial partnerships with business and industry, schools and community.
5) Enhance Miramar College’s visibility, attractiveness and reputation for quality.

Accreditation

San Diego Miramar College is approved by the California State Department of Education and is accredited by the Western Association of Schools and Colleges. The college is approved by the office of Private Postsecondary Education for the training of veterans as well as by the U.S. Department of State and the U.S. Immigration Service for international student education. Courses paralleling university level work are accepted by the University of California, the California State Universities, and by other universities and colleges.

Persons interested in the institution’s accreditation and program approvals may gain an opportunity to review documents describing these activities from the President’s Office. These documents will be available for such review at any mutually convenient time during regular business hours, and an appropriate interpretation of their contents will be provided if requested.

Disclaimer

The San Diego Community College District is governed by its Board of Trustees. No oral or written representation by any employee of the College is binding on the San Diego Community College District without the express approval of the Board of Trustees.
Admissions and Registration
The College Matriculation Program

Steps to Student Success
The college matriculation program is designed to help students succeed in their academic program. To “matriculate” means to enroll and to commit oneself to an educational goal. The matriculation process requires a commitment on the part of the college as well as the student.

The steps in the matriculation process are:

• Admission
• Assessment
• Orientation
• Educational planning with a counselor
• Follow-up of student progress

The matriculation program has been designed especially for students who intend to earn a certificate or degree at the college or to transfer to a four-year college or university. However, the services are available to all students admitted to the college.

All students are encouraged to participate in the various components of the matriculation program.

Students who meet the following criteria are exempt from the matriculation process:

1) Admission:
   • No exemptions

2) Assessment:
   • Students with the following educational goals: preparation for a new career, advancement in their current job/career, maintenance of a certificate or license, educational development, or completion of credits for high school diploma
   • Students enrolled in an apprenticeship program
   • Students who have an associate degree or higher
   • Students concurrently enrolled at a four-year college

3) Orientation:
   • Students with the following educational goals: preparation for a new career, advancement in their current job/career, maintenance of a certificate or license, educational development, or completion of credits for high school diploma
   • Students enrolled in an apprenticeship program
   • Students who have an associate degree or higher
   • Students concurrently enrolled at a four-year college or university

4) Counseling/Advising:
   • Students with the following educational goals: preparation for a new career, advancement in their current job/career, maintenance of a certificate or license, educational development, or completion of credits for high school diploma
   • Students enrolled in an apprenticeship program
   • Students who have an associate degree or higher
   • Students concurrently enrolled at a four-year college or university
   • Students who have taken the placement tests in the last three years.

5) Follow-up:
   • No exemptions

Admission
Admission is open to anyone who meets one of the following criteria:

• Persons who possess a high school diploma or California high school proficiency exam certification or GED with an average score of 45 or higher.
• Persons 18 years of age or older or emancipated minors who do not possess a high school diploma or equivalent may be admitted by the college under provisional admission status.
High school students requesting concurrent enrollment may be admitted as “special part-time” students subject to the following criteria:

a. Students must have a grade point average of 4.0 (9th grade or lower) or 3.0 (10th-12th grade).

b. Students must satisfy prerequisites and eligibility requirements for each course.

c. Students may take a maximum of two courses not to exceed 8 units per semester or session. This maximum includes classes at City, Mesa, Miramar Colleges and ECC (excluding High School Honors classes).

d. The requested course is UC/CSU transferable or advanced technical.

e. The requested course is not available at the school of attendance.

f. Students will be given college credit for all courses.

Contact the Admissions Office for further information.

Persons who are under 18 years of age who do not have a high school diploma and are not enrolled in a high school may be admitted as a special full-time student pursuant to Education Code §48800.5 subject to approval of the high school governing board and the college President where the student is planning to attend. Special full-time students will be admitted under provisional admission status.

Persons who do not meet one of the admission criteria stated above will not be admitted under any circumstances.

All new students must file an application for admission. Students who have not been in continuous attendance for one year must file a new application for admission.

Apply Online
Applications for admission to San Diego City, Mesa and Miramar Colleges are available on the Internet. Students access the on-line application at http://studentweb.sdccd.net.

Important Reminder
Every male citizen of the U.S. and male immigrant residing in the U.S., ages 18 through 25, must register with the Selective Service.

Assessment
Students will be given an assessment appointment at the time of application. For more information about assessment, call (858) 536-7379 or (619) 388-7379.

Assessment is commonly used by community colleges to assist students in selecting courses best suited to their abilities and educational goals.

Assessment includes testing as well as other measures and is intended to assist students in meeting course prerequisites.

Students may meet course prerequisites based on other factors such as past educational achievements in mathematics or English or course completion.

Testing accommodations are available to students with disabilities. Contact Disabled Students Programs and Services (858) 536-7212 or (619) 388-7312.

Orientation
Matriculating students who have been admitted to the college are expected to attend an orientation session before registering for classes at the college. The orientation program provides important information to students about the programs and services available at the college as well as strategies for student success.

New students are encouraged to attend an online orientation session by logging on to the Miramar College homepage at www.miramar.sdccd.net and then clicking on “Virtual Orientation” under the Student Services tab. After completing this orientation, students are invited to attend a STEP (Success Through Educational Planning) session with a counselor to develop a plan for their first semester in College. This important session will provide an interpretation of assessment results and recommended course placement and strategies for success. This is the first step in developing a Student Education Plan.

Educational Planning
The Student Education Plan (SEP) is an important tool to assist students in successfully attaining their goals without wasted time and effort. Counseling and career planning services are available to help students make wise choices concerning the programs and courses available.

The Student Education Plan is an agreement which contains the official requirements for graduation and/or transfer. All transcripts of prior college work must be on file and evaluated by the Evaluations Office before an official education plan can be prepared.
See the Graduation section on page 66 for graduation filing requirements.

A SEP typically lays out a program of study for a four or six semester period. These plans allow students to determine how long it will take to complete a program of study and to be sure that all program requirements can be met within a particular period of time. Education plans may be changed. The student should review plans periodically with a counselor. They are revised as a student’s goals or objectives change.

Assessment of interests and aptitudes is also available to those students who want more information or assistance in order to choose the “right” programs or courses.

**Course Numbering System**

The course numbering system has meaning with regard to level and transfer. See the description below:

- **1-49** Basic Skills or college preparatory courses. Credit does not apply toward an associate degree or transfer to a four-year college or university.
- **50-99** Course credit applies toward the associate degree but does not transfer to a four-year college or university.
- **100-299** Course credit applies toward the associate degree and credit is intended for transfer to a four-year college or university. (Some courses may be identified as associate degree.) Final decision in regard to transferability rests with the receiving institution.
- **300-399** Apprenticeship and in-service courses that may also count toward the associate degree, but credit may transfer.

Apprenticeship 345, 349, 349-D, DSPS 065, Field Experience/Internship 275, Independent Study 290, Individualized Instruction 296, Special Topics 23, 63, 265, Tutoring 044, and Work Experience courses 270, 272, 274, have Districtwide designated numbers.

**Follow-Up Services**

Follow-up services are available to all students as part of the college’s commitment to student success. These services include a periodic review of student progress and education plans to assist students in reaching their educational goal. Students who need additional support services will be referred to those services.

**Registration**

With the exception of Special-Admit High School students, all students receive an appointment to register by telephone using ClassTalk or online using Reg-e. Special-Admit High School students must enroll in person at the time of their registration appointment.

By using the combined schedule of classes and ClassTalk or Reg-e, a student can enroll in any available course offered at City, Mesa, or Miramar Colleges. The class schedule is also available on the web at: http://studentweb.sdccd.net

ClassTalk and Reg-e are easy to use. Written instructions for using ClassTalk may be found in the combined schedule of classes and in the Admissions Office. Instructions for using Reg-e are on the registration site.

The following information and services are available through ClassTalk and Reg-e:

- registration
- a record of the student’s class schedule, fees, and payment deadlines
- cancellation of registration
- adding and dropping classes
- academic deadlines and calendar
- grade information
- academic history
- purchase of parking permits
- purchase of an Associated Students college membership

**Online Registration (Reg-e)**

Students can register for classes using Reg-e, the San Diego Community College District’s online registration system. Students can visit the Student Web Services at: http://studentweb.sdccd.net and click on the Reg-e icon. Full instructions will lead students through the process.

**Class Schedules on Internet**

Up-to-date class schedule information and course descriptions for each campus is available on the Internet at http://studentweb.sdccd.net. This web site displays new classes, cancellations, and changes after the printed schedule has been distributed. A search engine allows students to search for classes by academic subject, by time and day, or by key words.
Wait List
Students who attempt to register in a class that is closed may request to be placed on a Wait List.

**IMPORTANT NOTE:** Wait Listing is not a guaranteed priority for enrollment.

**Wait List Criteria**
- Students may place their name on only one Wait List for a specific course (subject and course number).
- Students who are on a Wait List and later enroll in another section of the same subject and course number will be automatically removed from the Wait List.
- Students will be told their priority number on the Wait List.
- Students will have the capability to query their priority number on the Wait List.
- Students will have the option to remove themselves from the Wait List at any time.
- Wait List capability is available through both telephone and online registration.
- There will be a limit to the number of students allowed on each Wait List.
- Students must meet course prerequisites in order to be placed on the Wait List.
- Students must attend the first class meeting to have their Wait List priority considered.
- Being on the Wait List does not guarantee a space in the class.

Adding Classes
Students may add classes by telephone or online until the deadline date published in the schedule of classes. Students will not be allowed to add classes beyond the published deadline.

To add a class once the semester has begun, students must obtain an add code from the instructor, then must process and pay for the added class through ClassTalk or Reg-e. A student may also pay at the Accounting Office.

Students are not officially enrolled until the add code is processed through ClassTalk or Reg-e and fees are paid in full. Add codes for Special-Admit part-time high school and Joint Diploma students must be processed in person in the college Admissions Office prior to the add deadline.

If an instructor finds that a student has given his or her add code to another student, the instructor should administratively drop the student who was not issued the add code.

**Dropping Classes**
Students may drop or withdraw from classes by telephone or online until the deadline dates published in the schedule of classes. Deadline dates not published in the schedule of classes are available in the Admissions Office or online at http://studentweb.sdccd.net.

**It is the student’s responsibility to drop classes. If a student remains on the class roster beyond the withdrawal deadline, the student must receive a letter grade even though he or she has stopped attending class.**

*NOTE:* The "withdrawal" deadline for the 16 week primary session is the Friday of the 10th week of instruction. Consult the class schedule or studentweb.sdccd.net for published dates.

**Administrative Drop**
Registration may be administratively canceled for the following reasons:

1) Failure to pay all mandatory fees in accordance with the fee payment schedule;
2) Using an add code issued to another student;
3) Failure to meet the terms and conditions of a fee deferment;
4) Failure to meet academic or progress standards;
5) Denial of a “Petition to Challenge A Prerequisite.”

**Exclusion from Classes**
A student may be excluded from class or the college whenever the student:

1) Exhibits behavior which interferes with the educational process. An instructor may remove a student from two class sessions for disruptive behavior. (Refer to Policy 3100: Student Rights, Responsibilities and Administrative Due Process); or
2) Is found to have a communicable disease which requires isolation pursuant to a directive from the County Department of Public Health.
Children in Classrooms
No children are allowed in any classroom, or to be left unattended on the campus.

Study Load Limit
The maximum study load for a semester is 20 academic units exclusive of physical education activity units and/or 25 units including physical education. In special circumstances, in which a student has an exceptional record of academic achievement, the Counseling Department may consider a request to increase this limit.

Students are reminded that each unit of credit is calculated to involve a total of at least three hours of classroom and outside time per week. Thus, a 20-unit study load represents a 60-hour work load each week. Students working full-time are advised NOT to attempt a full-time college program.

Twelve units of credit is considered a minimum full-time program during a semester; nine units is three-quarter time, and six units, half-time.

The maximum study load for Summer session is 12 academic units excluding physical education and/or 15 units including physical education.

Priority System
Consistent with state law and the goal of providing a fair and equitable registration system for all students, the San Diego Community College District has established the following priority system for assigning registration appointments for Fall and Spring semesters:
1) EOPS and DSPS students
2) Continuing students
3) New matriculating students
4) New students
5) Students possessing a baccalaureate or higher degree who are not matriculating

Within each group, students are prioritized according to cumulative units, including transfer units and work in progress. New students are assigned an appointment on a first come, first served basis. The priority is as follows:
1) 50.0-69.9 units
2) 70.0-89.9 units
3) 49.9-0 units
4) More than 90 (in ascending order)

The priority system for the Summer session is:
1) EOPS and DSPS
2) Currently enrolled student
3) Previously enrolled students
4) New students

Change of Name, Mailing Address, or Email Address
All students must report immediately any change of address to the college Admissions Office or online. Failure to provide this information will result in delays in registration, and other important information sent by the college. Name changes must be supported with legal documentation and a picture ID and reported in person at the Admissions Office.

Prerequisites, Corequisites, and Limitations on Registration
PLAN AHEAD! All prerequisites, corequisites, and limitations on enrollment stated in the course descriptions listed in this catalog will be strictly enforced at the time of registration. Students who do not meet the requisite requirements according to college records will not be permitted to register for the course. Students who believe they have met the prerequisite at another institution are strongly advised to have all transcripts of prior college work evaluated and on file well in advance of registration to minimize registration delays.

Note: Unofficial transcripts are accepted for prerequisite clearance.

Students should plan their schedules early and see a counselor for assistance.

PREREQUISITES are courses that must be completed with a “C” or better prior to registration in a specific course.

COREQUISITES are courses that are required to be taken the same semester as another course.

LIMITATIONS ON ENROLLMENT are other restrictions that are stated in the course description such as “not open to students with credit in...”
**Challenge Procedures**

Students who believe they have sufficient grounds may challenge a prerequisite, corequisite, or limitation on enrollment in a specific course (the student does not receive units for a challenged class). A student may obtain a Petition to Challenge in the Admissions Office and a copy of Procedures 5500.2. The completed petition must be filed in the Admissions Office no later than ten working days prior to the published add deadline for the course being challenged. Students who challenge a prerequisite or corequisite after the start of the semester must obtain an add code issued by the instructor prior to completing the petition. Contact the Admissions Office for additional information. For credit by examination, please refer to page 49.

**Residency**

Residency is determined when a student applies for admission to the college. The following paragraphs summarize the rules and regulations related to student residency for tuition purposes. Details are found in the CA Education Code Section 68000, Title 5, Sections 54000-54072.

**Residency Status**

Every person who is married or is 18 or older and under no legal restriction may establish residence. Certain minors may also establish residence.

- A California “resident” is a person who has resided in the state for more than one year prior to the residence determination date and shows “intent” to make the state of California their permanent residence.
- An undocumented student is precluded from establishing residency. Restrictions also apply to some visas; please see the Admissions Office C-303.
- The residence determination date is the day immediately preceding the first day of classes for each semester.

**Factors Considered to Determine Residency**

No one factor decides residency. The following factors are called “indices of intent.” They, along with a person’s presence in California, are among the factors considered in determining California residency:

- Filing California state income taxes as a resident
- Possessing a California driver’s license and a vehicle registered in California
- Owning residential property in California for personal use
- Voting in California
- Being licensed to practice a profession in California
- Having an active checking and/or savings account in a California bank
- Showing California on military records (Leave and Earnings Statement)
- Possessing a marriage license or a divorce decree issued in California
- Having paid nonresident tuition in another state

**Exception to Residency Requirements**

Several exceptions to the residency rules apply. They include, but are not limited to, the following:

- Active duty military personnel stationed in California
- Dependents of active duty military personnel stationed in California
- Certain minors who remained in California when their parents moved
- Self-supporting minors
- Full-time employees of the college or a state agency or a child or spouse of the full-time employee

**Nonresident Students**

A student’s residency status is determined at the time of application. Nonresident students must pay nonresident tuition in addition to the enrollment fee and other fees for credit classes. Tuition must be paid in full at the time of registration.

**Assembly Bill (AB) 540**

Assembly Bill 540 exempts undocumented nonresident students, who meet the following criteria, from paying nonresident tuition:

- have attended high school in California for three or more years;
- have received a high school diploma or equivalent;
- have registered as an entering student at, or concurrent enrollment at an accredited institution of higher education in California.
• are in the process of obtaining legal status.

This provision applies to students attending community college after January 1, 2002. For additional information contact the college Admissions Office.

Incorrect Classification
A student incorrectly classified as a California resident is subject to reclassification as a nonresident and payment of all nonresident tuition. If incorrect classification results from false or misleading facts, a student may be excluded from classes or the college upon notification.

Reclassification
Reclassification to resident status must be requested by the student. Financial independence during the current year and preceding two years will be considered at the time the student requests reclassification. Information regarding requirements for reclassification is available in the Admissions Office.

Tuition will not be refunded to a student classified as a nonresident due to lack of documentation if, at a later date, documentation is presented for a previous semester.

Appeals
To appeal a residency determination decision, a student may file a Residency Determination Appeal form with the college Admissions Supervisor.

Limitation of Residency Rules
Students are cautioned that this summary of rules regarding residency determination is by no means a complete explanation of their meaning or content.

For further information, contact the Residency Clerk in the Admissions Office. In addition, changes may have been made in the statutes and in the regulations since this catalog was published.

False Information
Providing false information necessary for establishing residency will result in disciplinary action up to and including dismissal from the college.

Contact the Admissions Office for more details.

International Students
(F-1 Visa Students)

San Diego Miramar College will accept a limited number of nonimmigrant F-1 visa students. Acceptance into a program at the college is necessary before Bureau of Citizenship and Immigration Service (formerly INS) Form I-20 (certificate of eligibility) is issued by the college Admissions Office. The decision to grant an acceptance will be based on all evidence received prior to the deadlines. Students may contact the International Student Admissions Office at the following address to request forms or information:

International Student Admissions Office
San Diego Miramar College
10440 Black Mountain Road
San Diego, CA 92126

General Information
1) An international student must register for and maintain a minimum of 12 units each semester while at Miramar College. Part-time F-1 status will not be approved. The registration status and academic performance of all international students will be monitored by the college.

2) A recent photograph must be submitted with an application (passport size is acceptable).

3) Prospective international students are advised that they must comply with all requirements of the Bureau of Citizenship and Immigration Service (formerly INS) and of San Diego Miramar College to be admitted as international students.

4) A transfer student from another accredited United States college or university must:
   a. Follow set transfer procedures of the Bureau of Citizenship and Immigration Service (formerly INS); and
   b. Have pursued a full-time course of study with a minimum GPA of 2.0 at the college the student was last authorized to attend (an official transcript must be filed).

Admission Requirements
Application Fee: All international students are required to pay a $100 non-refundable application fee. Upon admission to the college, the fee will be applied toward the first semester nonresident tuition. The fee is valid for up to one year from the date processed.
Admission for Fall Semester: Students must complete all admissions requirements no later than May 1 to be admitted for the Fall semester. Since the processing of an application normally requires a minimum of three to five months, students are strongly encouraged to file an application by March 1 of the current year. Students who meet the May 1 deadline will be notified as soon as possible of their admission status.

Admission for Spring Semester: Students must complete all admissions requirements no later than October 1 to be admitted for the Spring semester. Students who meet the October 1 deadline will be notified as soon as possible of their admission status.

Academic Achievement
1) An international student must have graduated from high school (or its equivalent) with a GPA of 2.0 “C” or better.
2) Students who have obtained a GED (General Education Development) must have attained a minimum score of 45.
3) Transcripts of all previous secondary and college/university education must be submitted, including an English translation of the transcript, before an application will be considered.

English Proficiency Requirements
To be considered for admission, you must be able to speak, read, write and understand English at a level that will allow you to successfully complete college work. To verify your English level, you must pass the TOEFL (Test of English as a Foreign Language) with a minimum score of 500 on the written test, or 173 on the computerized test.

TOEFL information, registration forms and score reports are available from TOEFL, P.O. Box 6154, Princeton, NJ 08541-6154, USA. Web site/email address: www.ets.org/cbt/ndex.html

Telephone number: (609) 771-7100
FAX number: (609) 771-7500

Students may request that the TOEFL office send the test scores directly to San Diego Miramar College. Our school code number is 4728. Scores must be received by the application deadline.

The TOEFL requirement will be waived if you have completed a transfer level college English composition course at an accredited United States institution with a grade of C or better, if you come from a country where English is the primary language in its educational system, or completion of ESL assessment and placement at a level of English 40 or higher.

Financial Resources
1) Each international student must submit verification of sufficient financial resources. The verification must indicate the ability of the student to finance each year’s education and living expenses to the satisfaction of the International Student Advisor (normally $15,200 a year for two semesters).
2) An international student attending the college must pay all mandatory fees, including nonresident tuition, enrollment fees, and health services fees.
3) Financial aid is not available to F-1 visa international students.
4) An international student may not accept off-campus employment while attending college unless approval is granted by the Bureau of Citizenship and Immigration Service (formaly INS).

Health Clearance
1) Students must be in good health and free of communicable diseases. The “Report of Health Examination” form or a medical examination report by a physician must be submitted prior to admission. The medical examination must certify immunization against polio, diphtheria, measles, rubella, and tetanus, and must provide tuberculosis clearance.

2) Each student must present and maintain satisfactory evidence of an active medical insurance policy while in attendance.

Housing
The college is located near public transportation and housing. There are no housing facilities on campus and the college does not assist with housing. However, there is affordable housing within walking distance of the college. Students are welcome to stay in the residence halls at Alliant University (AIU). Contact the AIU Office of Housing and Residence Life at (858) 635-4592 or on the internet at: www.aiu.edu/sandiego.

Visa Students (other than F-1)
All other visa categories or immigrant classifications, must see the Admissions Office.

Students who are residing in the United States on other than F-1 student visas must comply with all restrictions
on total units enrolled as specified by the Bureau of Citizenship and Immigration Service (formerly INS).

Fees

Community College Enrollment Fee
The enrollment fee is assessed of all students, including nonresidents. The fee is currently $11.00 per unit; however, this fee is subject to legislative and gubernatorial action, and may change without notice.

- Waiver of the enrollment fee is available to students who petition and qualify as recipients of benefits under the Temporary Assistance to Needy Families (TANF) program, the Supplemental Security Income/State Supplementary (SSI) program, or the General Assistance program.
- Indentured apprentices are exempt from enrollment fees for apprenticeship program classes only.
- Financial Aid may be available to students who qualify.
- Certain exemptions apply to “special part-time high school students.” Contact the Admissions Office for more information.

Health Services Fee
All students are assessed a mandatory fee for Health Services and accident insurance. The fee is $12.00 for the Fall and Spring semesters and $9.00 for the Summer Session. The following students are exempt from the health services fee:

1) Students attending under an approved apprenticeship program.
2) Students who, at the time of enrollment, are recipients of benefits under the Temporary Assistance to Needy Families program, the Supplemental Security Income/State Supplementary Program, or the General Assistance program.
3) Students exempt from payment of the enrollment fee.
4) Students enrolled exclusively in off-campus classes are not eligible for Student Health Services. These students pay only the accident insurance portion of the fee, which is currently $2.50.
5) Students who depend exclusively on prayer for healing in accordance with the teachings of a bona fide religious sect, denomination, or organization.

These students may petition to have the fee waived.

6) Students enrolled exclusively in the Miramar Public Safety Training Institute in the status of an employee of a municipality.

For more information, contact the Admissions Office (858) 536-7844 or (619) 388-7844.

Nonresident Tuition
In addition to the enrollment fee and health fee, tuition is charged to students who are not legal residents of California for tuition purposes. The 2003-2004 nonresident tuition fee is $149.00 per unit.

Liability Insurance
Students enrolled in occupational courses that require direct clinical practice must pay a fee for liability insurance. Liability insurance fee is automatically assessed at the time of registration. The current fee is $7.00 per semester.

Additional Fees
Parking
Automobile Permits per semester (hanger included) ................. $30.00
Automobile - Carpool Permits per semester (Mesa only) ... $30.00
Motorcycle Permits per semester .................. $15.00
Transcript of Record .................. $5.00
Cost of equipment and books .......... cost
A.S. College Membership (per academic year) .................. $8.00
Credit by Examination .................. $11.00/unit
Student Representation Fee ................. $1.00 (Mesa and Miramar classes only)

Note: Students receiving public assistance, or who are determined eligible for financial aid, may purchase a single car permit for $20.

All fees are subject to change.

Students are expected to buy all books and supplies needed for their courses. Certain occupational programs may require additional expenditures for tools, uniforms, and/or liability insurance.

Student Representation Fee: All students attending a Mesa or Miramar College class are required to pay a $1.00 student representation fee. This fee is expended by the college solely for the purpose of student advocacy efforts to Federal, State and local governments. Students have the right to refuse to pay the fee for religious, moral, political or financial reasons.
Refunds

1) Fees will be refunded to students who reduce their program in accordance with the following schedule:
   - Classes 1 week or shorter in duration, see Admissions
   - Short-Term Sessions (less than 16 weeks) - Monday of second week
   - Primary Session (16 weeks or more) - Monday of third week

2) Students who are administratively dropped when a Petition to Challenge is denied will receive a full refund of the class(es) petitioned.

3) Students who are academically disqualified and administratively dropped will receive a full refund. * No refund is given for classes dropped after deadline.

Students with a valid address on file, and who do not have an outstanding financial obligation to the district, will receive a refund in the mail or credit to their credit card. Refunds will be automatically sent to students after the add/drop deadline. For payments by check, there is a five week waiting period for checks to clear the bank before refunds will be processed.

Note: Students who drop all classes and wish to receive a refund must also submit their parking permit before the refund will be granted. If the permit is not returned within the two-week period, the student will not receive a refund for the permit.
Student Services
We, the Student Services Division, believe that students are the reason for our existence. We are dedicated to offering equitable and courteous services to our Miramar College community. We are committed to the development and empowerment of our students to their full potential.

# Services for Students

<table>
<thead>
<tr>
<th>Service</th>
<th>Location</th>
<th>Phone Numbers</th>
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<tbody>
<tr>
<td>Accounting</td>
<td>C303</td>
<td>(619) 388-7326</td>
</tr>
<tr>
<td>Admissions</td>
<td>C303</td>
<td>(858) 536-7844, (619) 388-7844</td>
</tr>
<tr>
<td>(General Inquiries, Applications/Enrollment) Adds/Drops/Student Petitions</td>
<td>C303</td>
<td>(858) 536-7844, (619) 388-7844</td>
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<tr>
<td>ClassTalk</td>
<td>C303</td>
<td>(619) 624-2100</td>
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<tr>
<td>ClassTalk Help Line</td>
<td></td>
<td>(858) 536-4300</td>
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<tr>
<td>ClassTalk tty#</td>
<td></td>
<td>(619) 624-2121</td>
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<tr>
<td>Gradesline</td>
<td></td>
<td>(619) 624-2200</td>
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<tr>
<td>Enrollment Verifications</td>
<td>C303</td>
<td>(858) 536-7844</td>
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<tr>
<td>Reg-e <a href="http://studentweb.sdccd.net">http://studentweb.sdccd.net</a></td>
<td></td>
<td>(619) 388-7844</td>
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<td>Residency</td>
<td>C303</td>
<td>(858) 536-7844, (619) 388-7844</td>
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<td>Special Programs</td>
<td>C303</td>
<td>(858) 536-7848, (619) 388-7848</td>
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<td>Student Records</td>
<td>C303</td>
<td>(858) 536-7844, (619) 388-7844</td>
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<td>Assessment</td>
<td>B203</td>
<td>(858) 536-7379, (619) 388-7379</td>
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<td>Associated Students</td>
<td>S101B</td>
<td>(858) 536-7877, (619) 388-7877</td>
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<td>Bookstore</td>
<td>D301</td>
<td>(858) 536-7866, (619) 388-7866</td>
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<td>Career Transfer Center</td>
<td>B203</td>
<td>(858) 536-7380, (619) 388-7380</td>
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<tr>
<td>Child Development Center</td>
<td>F200</td>
<td>(858) 536-7851, (619) 388-7851</td>
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<tr>
<td>College Police</td>
<td>B102</td>
<td>(858) 536-7353</td>
</tr>
<tr>
<td>Counseling Department</td>
<td>C302</td>
<td>(858) 536-7840, (619) 388-7840</td>
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<td>V. P., Student Services</td>
<td>A104</td>
<td>(858) 536-7810, (619) 388-7810</td>
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<tr>
<td>Disabled Student Services</td>
<td>C304</td>
<td>(858) 536-7212, (619) 388-7312</td>
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<td>EOPS</td>
<td>C301</td>
<td>(858) 536-7869, (619) 388-7869</td>
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<td>Evaluations</td>
<td>C304</td>
<td>(858) 536-7371, (619) 388-7371</td>
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<td>Financial Aid</td>
<td>B205</td>
<td>(858) 536-7864, (619) 388-7864</td>
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<td>Health Services</td>
<td>S103</td>
<td>(858) 536-7881, (619) 388-7881</td>
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<td>High Tech Center</td>
<td>D104</td>
<td>(858) 536-4303, (619) 388-7303</td>
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<td>International Student Information</td>
<td>C302</td>
<td>(858) 536-7840, (619) 388-7840</td>
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<td>Job Placement</td>
<td>B203</td>
<td>(858) 536-7235, (619) 388-7235</td>
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<td>Journalism (The Sage)</td>
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<td>(858) 536-7872, (619) 388-7872</td>
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<td>Library</td>
<td>C400</td>
<td>(858) 536-7310, (619) 388-7310</td>
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<td>Matriculation Office</td>
<td>S101</td>
<td>(858) 536-4313, (619) 388-7313</td>
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<td>Records Office</td>
<td>C303</td>
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<td>SDCCD Online at Miramar</td>
<td>T300</td>
<td>(858) 388-7330</td>
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<tr>
<td>Student Affairs</td>
<td>S101</td>
<td>(858) 536-4313</td>
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<tr>
<td>TRIO</td>
<td>B203</td>
<td>(619) 388-7473</td>
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<tr>
<td>Tutoring (The PLACe)</td>
<td>D106</td>
<td>(858) 536-7852, (619) 388-7852</td>
</tr>
<tr>
<td>Veterans Affairs</td>
<td>B205</td>
<td>(858) 536-7862, (619) 388-7862</td>
</tr>
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</table>

The college maintains a comprehensive program to assist students in achieving their goals. The services provided are detailed on the following pages.
Counseling Services

The mission of the San Diego Miramar College Counseling Department is to provide comprehensive programs and services that empower students to identify and achieve educational, career, and personal goals to meet life's opportunities and challenges.

Academic, career, and personal counseling are provided in the Counseling Department in C-302. Services include academic skills assessment and development of a Student Educational Plan (SEP), which outlines what courses are needed for graduation and provides a checklist for requirements completed and remaining. Students should have official transcripts from other colleges attended on file and evaluated before seeking to obtain an official SEP. Students are advised to review the catalog and schedule of classes for program and general information prior to meeting with a counselor. The Counseling Department offers college success and career planning courses through Personal Growth listed in the schedule of classes.

The Counseling Office is open Monday to Thursday from 8:00 a.m. to 7:30 p.m. and on Friday from 8:30 a.m. to 2:00 p.m. For more information, please stop by or call (619) 388-7840 or (858) 536-7840.

Career and Transfer Services

Located in B-203, Career/Transfer Center offers a number of resources to assist students in college, career, and transfer planning. Career resources consist of career information, newsletters, occupational and interest inventories, and resource directories. Computerized career assessments, including the Strong, MBTI and Eureka are also available for student use. Transfer resources available consist of college catalogs, internet access to college information, transfer requirement handouts, articulation agreements and education planning guides. Representatives from four-year universities are regularly scheduled. In addition, a variety of workshops are scheduled on a regular basis to address the topics of career, transfer and employment. For more information, please stop by, call (858) 536-7380 or (619) 388-7380, or visit our web site at: www.miramar.sdccd.net/depts/ctc.

English for Speakers of Other Languages (ESOL)

The English as a Second Language Program is designed to prepare students to read, write, speak and listen at a level that enables them to succeed in college courses. The program consists of four levels and the student is assigned a level based on the result of his/her placement test. Students interested in enrolling in ESOL courses should schedule an assessment test for placement into the appropriate skill level.

For more information on the English as a Second Language Program, students should contact the college Counseling Office.

Disabled Students Programs and Services (DSPS)

Miramar College provides programs and services for students with disabilities in compliance with State and Federal legislation including Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA). Student participation in the program is voluntary.
Eligible students who have a verifiable disability qualify for support services through the Disabled Students Programs and Services (DSPS) department. The programs and services are designed to support students in the achievement of their academic and vocational goals. Specialized classes for students with disabilities are available to support the college academic and vocational programs through the DSPS, High Tech Center, and Personal Growth. Services provided include priority enrollment, readers, interpreters for deaf students, note takers and/or note taking materials, use of special equipment and adaptive devices, and specialized counseling and referral. Liaison with community agencies is also an important component of the program.

Academic accommodation such as the use of tape recorders or braille in the classroom and the modification of test-taking procedures may be arranged. The campus is physically accessible.

Anyone interested in applying for services or obtaining further information may contact the Disabled Students Programs and Services Department in C-304 by calling (858) 536-7212 or (619) 388-7312; tty (619) 388-7301.

Extended Opportunity Programs and Services (EOPS) and Cooperative Agencies Resources for Education (CARE)

What is EOPS?
EOPS is a state-funded student support services program. Its purpose is to provide enhanced recruitment, retention, and transition services to eligible students. The services offered are “above and beyond” those offered by the college's Student Services division. The primary services include assistance in the following areas: priority enrollment, book service program, counseling/advisement, preparation for transition to four-year schools, the workplace, and financial assistance. For detailed information on all services offered and application procedures, please contact the EOPS Office in C301, or call (858) 536-7869 or (619) 388-7869.

EOPS students who are single parents, have a child under 14 years of age, and are a member of a household that receives public assistance, are encouraged to apply for the program's Cooperative Agencies Resources for Education (CARE) component. CARE provides additional support services, including grant funds, to address those needs that are unique to single parents.

You may be eligible for EOPS if you are enrolled full-time (at least 12 units). At least 9 of these units must be taken at Miramar College and your financial aid must be at Miramar. In addition you must meet all of the following criteria:

1) You are a resident of the state of California, as determined by the Admissions Office.
2) You are (or plan to be) a full-time student.
3) You qualify to receive a Board of Governors Waiver A or B.
4) You have not completed 70 (or more) units of degree-applicable college course work. This includes courses taken at other colleges.
5) You are determined to be educationally disadvantaged by meeting any one of the following criteria:
   a. You do not qualify to enroll for the minimum level English or mathematics courses required for your degree objective.
   b. You have not fulfilled the requirements for a high school diploma or General Educational Development (GED).
   c. Upon graduation from high school your high school grade point average (GPA) is 2.5 or less on a 4.0 scale.
   d. You have been enrolled in a Math or English course, or program that is considered to be developmental or remedial.
   e. You have been enrolled in an English as a Second Language (ESL) class or program.
   f. In the judgment of the EOPS director, using state guidelines, you are determined to be educationally challenged.

How To Apply
Students interested in applying for the EOPS program must complete an EOPS application and the Free Application for Federal Student Aid (FAFSA). These applications are available in the EOPS Office in C301.
and Financial Aid Offices in B305. Students should apply early to ensure that they receive consideration for all services. It is recommended that students complete the FAFSA by the priority filing date published by the Financial Aid Office.

Financial Aid

The Financial Aid Office is committed to assisting students who might otherwise be unable to continue their education because of financial disadvantage.

Financial aid funds are administered in accordance with a nationally established policy of financial assistance for education. The basis of this policy is the belief that students and their parents have the primary responsibility for meeting educational costs. The amount of the contribution expected from students and their parents is determined by careful analysis of family financial strength, taking into consideration taxable and non-taxable income, household size, allowable expenses, indebtedness, and assets. The U.S. Department of Education, in cooperation with educational agencies, has established procedures which are used in making an evaluation of the amount families can be expected to contribute.

Application

Application materials are available in January for the following academic year. The priority filing date for aid is May 31st. Students filing their application by this date will be considered first in the award process. However, applications for financial aid are accepted throughout the school year until June 30, 2004.

Prospective students do not have to be accepted for admission to San Diego Miramar College to apply for financial aid. In fact, students should apply for aid as soon as the applications are available whether or not they have been admitted to the college, since the application process for federal aid can take up to 12 weeks.

All financial aid applicants must complete the Free Application for Federal Student Aid (FAFSA). The FAFSA is available and can be filed on the Internet at www.fafsa.ed.gov. Those who wish to file the paper application should mail the completed form directly to the processor according to the instructions.

Academic transcripts from prior colleges attended must be submitted directly to the District Records Office before processing of a financial aid application can be completed.

Eligibility

In order to be eligible to apply for financial aid, a student must be a citizen or permanent resident of the United States or be in the country for other than temporary purpose with the intention of becoming a permanent resident.

Eligible non-citizens may be required to provide proof of permanent residency for Federal Aid. F-1 Visa students are not eligible for financial aid at San Diego Miramar College. For further information regarding other eligible immigration status, contact the Financial Aid Office.

Students who do not have a high school diploma or equivalent are required to demonstrate “Ability to Benefit” from instruction. Information is available in the Financial Aid Office.

Please refer to the Financial Aid Bulletin for additional eligibility requirements.

Awards

Awards take the form of a “package” of financial aid, usually consisting of grant money and work-study, depending on the financial need of the applicant and the available funds. Awards may be adjusted at any time upon notice of receipt of resources not previously reported. Revision to awards is always possible because personal financial circumstances can be very unpredictable. If funding is available, aid for valid educational expenses not already covered in the student cost budget may be increased.

Financial aid checks are usually disbursed approximately four or five weeks after the start of classes. Pell Grant disbursements are based on enrollment levels at time of payment and will not be adjusted. However, SEOG and Cal Grant payments will be adjusted according to enrollment status. If you withdraw from classes after aid has been disbursed to you, you may be required to repay all or part of this aid.

An automated system is available in the college Bookstore to allow students to use a portion of their estimated Pell Grant to purchase books and supplies one week prior and after the start of the semester. Funds will be set aside from each student’s Pell Grant and placed in a special account in the bookstore. This account may be used for the purchase of books and supplies until the funds are exhausted. The account is valid at the City, Mesa, and Miramar College and ECC Bookstores, regardless of where students are taking classes.
Student will be responsible for paying back the Bookstore for charges if student does not attend classes.

Students who elect not to purchase books from the college Bookstore, or have any funds remaining on account, will receive the funds in the mail with the remainder of their Pell Grant award.

Students must be making satisfactory academic progress as determined by the Standards of Satisfactory Academic Progress for Financial Aid Recipients in order to be eligible to receive financial aid. Copies are available in the Financial Aid Office.

Return of Title IV Funds
Federal law requires that if a student receives a grant and then drops/withdraws from all his/her classes, he/she could owe money back to the Federal Government.

Note that the earlier a student drops/withdraws, the more money he/she will have to pay back.

- If a student receives LOAN money and withdraws, he/she must pay back the money according to the normal rules of the loan program.
- If a student receives WORKSTUDY money and withdraws, he/she does not owe anything back and may keep the salary earned but must stop working.

For more detailed information, contact the Financial Aid Office.

Financial Aid Programs Available
The following is a basic description of the programs available. Contact the Financial Aid Office for detailed descriptions and eligibility requirements.

Enrollment Fee Assistance Board of Governors Waiver (BOGW)
State law requires that students attending the college pay an enrollment fee. Students enrolled in credit classes are currently required to pay $11 per unit.

The college offers the Board of Governors Waiver (BOGW), a State-funded program which will waive the enrollment fee for all eligible applicants. Students who qualify for a BOGW, are also exempt from paying the health fee.

If you are a California resident, you will qualify for a BOGW if any ONE of the following statements applies to your current status:

- You have already qualified for financial aid, such as a Federal Pell Grant or a Cal Grant.
- You have financial need as determined by Federal Methodology. Need analysis system.
- You or your family are receiving TANF (Temporary Aid For Needy Families), SSI (Supplemental Security Income), or General Assistance/General Relief at the time of enrollment.
- You have a letter from the department of Veterans Affairs certifying that you meet the eligibility requirements of "certain disabled veterans," or "dependents of certain deceased or disabled veterans."
- You are a dependent of a deceased or disabled veteran of the California National Guard. You must submit a letter of certification from the California National Guard Adjutant General's Office.
- You meet the following income standards:

<table>
<thead>
<tr>
<th>Number in Household (including yourself)</th>
<th>Total Family Income for 2002 (adjusted gross income and/or untaxed income)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$13,290 or less</td>
</tr>
<tr>
<td>2</td>
<td>$17,910 or less</td>
</tr>
<tr>
<td>3</td>
<td>$22,530 or less</td>
</tr>
<tr>
<td>4</td>
<td>$27,150 or less</td>
</tr>
<tr>
<td>5</td>
<td>$31,770 or less</td>
</tr>
<tr>
<td>6</td>
<td>$36,390 or less</td>
</tr>
<tr>
<td>7</td>
<td>$41,010 or less</td>
</tr>
<tr>
<td>8</td>
<td>$45,630 or less</td>
</tr>
</tbody>
</table>

Add $4,620 for each additional family member.

To determine your eligibility for the Board of Governor’s Waiver based on the above income standards, you will be considered independent if:

- You do not live with your parents
- You were not claimed as an exemption on any federal income tax filed by your parents in 2002

Federal Pell Grant
The Federal Pell Grant is the largest federal grant program and is the foundation of a student's total “aid package.” Eligibility is determined by the Federal government using a standard formula for all applicants.

Enrollment status will be frozen after the add/drop period and will be the basis for Pell disbursement. Once the Pell Grant award has been processed it will not
be adjusted for additional units added during the semester.

**Federal Supplemental Educational Opportunity Grant (FSEOG)**

FSEOG is a federal grant program designed to assist students who have the greatest demonstrated financial need. Awarding of FSEOG funds is determined by the Financial Aid Office based on available resources.

**Cal Grants**

The Cal Grant program is administered by the California Student Aid Commission to help low-income students attend college. Students at the college may receive Cal Grant B or C.

- To be eligible for Cal Grant B a student must be a California resident and pursuing an undergraduate academic program of not less than one academic year.
- Cal Grant C is designed for students enrolled in a vocational program who are California residents from low- or middle-income family.
- See the Financial Aid Bulletin for important dates and deadlines.

**Federal Work Study**

Federal Work Study (FWS) allows students the opportunity to earn part of their financial aid by working in assigned jobs, both on and off campus. The salary received is at least equal to the current minimum wage, but many Federal Work Study jobs pay more than minimum wage. Federal Work Study differs from the other financial aid programs in that a student is allocated a certain amount of money to earn. As work on the job is completed, a time card is submitted for the hours worked just as at a regular job. Once a month the student receives a paycheck for the hours worked. Once the amount allocated in the financial aid package is earned, the job ends.

**Federal Direct Loan (Subsidized)**

The Federal Direct Loan is a federal loan program that replaced the Federal Family Educational Loan program (FFELP). Instead of borrowing from a bank, students borrow directly from the Federal Government.

A community college student may borrow $2,625 as a first year student and $3,500 as a second year student. A student may not borrow more than a total of $23,000 as an undergraduate student. The interest rate is a variable rate that changes each school year with a cap of 8.25%. Borrowers are required to pay a loan fee which is currently 3%. These fees are deducted from the proceeds of the loan.

To qualify, a student must be enrolled in at least six units and must demonstrate financial need through the Federal Methodology. To apply for a Direct Loan, students must first apply for financial aid using the FAFSA. In addition, all applicants must complete the entrance loan counseling over the Internet and attend a mandatory loan workshop conducted by a financial aid staff. Attendance at the workshop is required even if a student has attended a FFELP loan workshop in the past.

Borrowers will be required to submit a Student Educational Plan (SEP). The actual loan amount for which a student is eligible will be determined by the Financial Aid Office. Students must have financial need to qualify and must repay the loan. Checks will be disbursed twice per loan period. Checks for first-time borrowers will be disbursed at least 30 days after the start of the semester.

**Federal Direct Loan (Unsubsidized)**

Effective July 1, 1999, City College, Mesa College and Miramar College will no longer participate in the Unsubsidized Federal Direct Loan Program.

**Plus Loan**

Parents of dependent undergraduate students may borrow from the PLUS loan program. The amount borrowed may be up to the cost of attendance minus any financial aid. Checks will be co-payable to the parent and the institution. Parents must begin repayment within 60 days of receiving the loan. The interest rate is a variable rate determined on June 1 for the following award year. Borrower must meet all other financial aid eligibility requirements, including completing the FAFSA.

If you have any questions, please call the Financial Aid Office, at (858) 536-7864 or (619) 388-7864.

**Student Emergency Loans**

Short-term loans for limited amounts of money are available to students in emergency situations. Contact the Financial Aid Office for further information.

**Student Employment**

Services include job listings, resume and cover letter writing assistance, interview preparation, Internet job
search, and career advisement. Resources available to students include labor market information, career assessments, occupational data, career books, and internship opportunities. Contact the Employment Center at (858) 536-7235 or (619) 388-7335 for more information regarding these services.

**Gift Certificate Program**

Gift certificates are available in the college bookstore and may be applied towards college fees and the purchase of books and supplies.

**Veterans and Service Members**

**Veterans Center Military Service Connected Benefit Programs**

The San Diego Community Colleges have been approved to offer military service connected benefit programs leading to a certificate, an Associate Degree or transfer to a four-year institution. The Veterans Affairs Office staff provides counseling and guidance to veterans and assists them in the selection of educational programs which qualify for veterans benefits. The final responsibility for monitoring the process of qualification for educational benefits resides with the individual. Each veteran must read, understand, and comply with the many rules, regulations, and procedures that influence the benefit process.

**Failure to take the proper classes can result in an overpayment and the reduction or termination of benefits.**

**Disabled Veterans**

Veterans who qualify for educational benefits as disabled veterans may be entitled to special educational benefits. Veterans should visit the Veterans Administration Regional Office, 8810 Rio San Diego Dr., San Diego, CA 92108, to determine their eligibility for disabled status. Telephone: (800) 827-1000.

**Veteran Dependent Exemption**

The children and spouses of U.S. Veterans with service connected disabilities may be eligible for waiver of college fees and/or for a small monthly payment. For more information see the Veterans Affairs Office.

**Liability**

The veteran assumes full liability for any overpayment of veterans benefits. All persons receiving educational benefits must report to the colleges Veterans Affairs Office after enrollment every semester to continue their benefits. In addition, a Student Education Plan (SEP), must be on file by the end of the first semester; otherwise, certification of VA benefits will be delayed for the second semester. This plan must be developed and reviewed by a counselor. Veterans with disabilities are encouraged to pursue services offered through Disabled Students Programs and Services.

**Number of Units Required**

For students enrolled in a degree program, the following number of units are required each semester to qualify for educational and training allowance:

- 12 units or more  full allowance
- 9 - 11.5 units  three-fourths allowance
- 6 - 8.5 units  one-half allowance
- 2 - 5.5 units  one-quarter allowance *

* Chapters 32 and 106 only.

Short-term and summer session courses are computed proportionately for payment purposes.

**Withdrawal/Change of Classes**

Veterans are required to notify the campus Veterans' Affairs Office when they stop attending class, withdraw from the college, or add or drop a class. Such changes should be reported immediately after completing the add/drop procedure through ClassTalk or Reg-e. Failure to comply with this regulation will be grounds for decertification of Veterans' benefits and/or potential overpayment liability.

**Veterans Academic Progress**

A veteran student on Academic or Lack of Progress probation status is disqualified when his/her cumulative grade point average (GPA) falls below 2.0. The College Veterans Affairs Office is required to notify the Department of Veterans Affairs (DVA) of this status. The DVA will terminate benefits unless it can be shown that the student is pursuing an appropriate objective
and has a reasonable chance for success in the chosen program. Please contact the Veterans Affairs Office for more information.

Repeated Classes
Veterans repeating a course in which a grade of “A,” “B,” “C,” “D,” or “CR.” has been given may not receive VA benefits for the repeat. By District policy, the veteran is eligible to repeat courses in which a “D” grade has been received; however, the course may be certified for benefits only if the catalog states that a grade of “C” or better in that course is required to earn a degree or meet a prerequisite.

Work Experience
Veterans may be approved for Work Experience classes only if work experience is required in their major or if they have electives available according to their education plan. Total work experience may not exceed four units per semester or a total of 16 cumulative units.

Transcripts
All official transcripts of prior college work and military schools, including copies of form DD214 or DD295 covering all periods of military service, must be on file in the Records Office by the end of the first semester of attendance at this college. Certification for benefits for the second semester will be withheld if transcripts are not received. Visit Veterans Affairs Office for necessary forms.

Learning Resources

Independent Learning Center (ILC)
Need a computer to do classroom research, to write a term paper, or to access the Internet? Come to Miramar’s Independent Learning Center (ILC) located on the 2nd floor of the I-Building. Since Fall 2000, the ILC has continued to grow in providing Miramar students with the many instructional support services necessary to successfully complete classroom assignments. Along with a friendly, helpful staff, the ILC offers Miramar students access to computers (PCs and Macs), the Internet, printing, photocopying, and supplementary materials provided by various faculty. In addition, self-paced classes are available in Computer Business Technology (CBTE) and Math. The ILC is open Monday-Friday from 8 a.m. to 8 p.m. and Fridays from 8 a.m. to 1 p.m. (Friday hours may vary slightly). Please come by and see what the ILC has to offer you-a Miramar College student.

Library
The Library/Learning Resources Center (LRC), located in building C-400, serves faculty, students, and staff. The LRC assists students who need information to complete class assignments or wish to improve their research skills. Faculty members can use library and audio-visual resources for classroom instruction and can house instructional material on reserve in the Library for their students to use. To support instructors’ curriculum, librarians are also available to conduct library orientations for classes. The LRC offers a LIBS101 course in Information Literacy and Library Research Skills (See page 254).

A few of the services the LRC provides include: reference materials and assistance, library orientations, Internet access, a local area network of electronic databases, periodicals, interlibrary loans, quiet study areas, photocopiers, video and slide players, CD listening stations, and a typewriter. The LRC also houses a special law library collection.

For additional information, please call (858) 536-7310 or (619) 388-7310 during our regular working hours:
Monday through Thursday, 8:00 a.m. - 8:30 p.m.
Friday, 8:00 a.m. - 3:30 p.m.;
(Closed Saturday and Sunday)
or log on to the Library web site at:
www.miramarcollege.net/library.asp

Tutoring - The PLACe

The Personal Learning Assistance Center (The PLACe) is located in room D-106 and provides students with academic support in a number of areas: math, writing, college reading/study skills as well as Spanish, biology, history, political science, art, music, vocational courses, psychology, sociology.

Students may schedule appointments for tutoring or drop in for assistance where they will be assisted by the first available tutor. Additionally, students may use the INVEST computer lab to improve their writing, math and reading skills.

Miramar students may use The PLACe to work on classroom assignments, because of instructor
assignments, or because they choose to use the services on their own.

The PLACe is open Monday and Tuesday 8:30 a.m. - 6:30 p.m., Wednesday and Thursday 8:30 a.m. - 8:00 p.m., Friday 8:30 a.m. - 11:30 a.m., Saturday 9:00 a.m. - 12:00 noon. Please call The PLACe at (858) 536-7852 or (619) 388-7852, for a tutoring appointment or for further information stop by D-106 during operating hours.

SDCCD Online

SDCCD Online provides online courses and support for students seeking distance education opportunities. Distance education is a flexible and convenient opportunity for self-motivated students who have computer skills and believe they can communicate effectively through reading and writing. Online courses are developed and taught online by instructors from the three colleges in the San Diego Community College District, as well as the Centers for Education and Technology.

Students can earn a Transfer Studies Associate in Arts Degree by taking online courses offered by SDCCD Online.

The SDCCD Online Office is located on the Miramar College campus in the T-300 Building. For more information, stop by, e-mail inform@sdccdonline.net, or call (619) 388-7330.

Child Development Center

The Child Development Center is the Campus Laboratory School providing students with the opportunity to observe and study growth and development patterns in young children. The Center offers an educational program for children two to five years of age. It provides a rich variety of preschool activities which encourage a sense of self-worth and creative expression.

Enrollment in this center is limited to the children of parents attending classes at Miramar College or any college within the San Diego Community College District. Due to limited space, priority is given based on eligibility as defined by the Child Development Division, California State Department of Education. Parents are required to enroll in a child development lab course each semester their child attends the Center. Specific information will be provided by the Child Development Center faculty.

The Center is located in F-200 and is open 8:00 a.m. - 4:00 p.m. Monday - Thursday and 8:00 a.m. - 1:00 p.m. on Friday. For additional information call (858) 536-7851 or (619) 388-7851.

TRIO Student Support Services

TRIO Student Support Services is a Federally funded program designed to support first-generation, low-income and/or disabled students as they pursue their academic or career goals. The intent of the program is to provide a holistic view of student success by providing a wide variety of support services to transfer college students.

The following services are available to all participants in the program:

- Transfer counseling
- Career counseling
- Financial aid counseling
- Tutoring
- College/university visits
- Educational field trips
- Academic supplies (i.e., scantrons, pencils, etc.)
- Student success workshops

Applications are continually being accepted, and interviews are held throughout the semester. Eligible students can stop by B-203 or call (619) 388-7473 for applications or for additional information.

Student Health Services

The Student Health Services supports the success of students by attending to their physical and emotional well-being through the following services:

- Nursing Assessment & Management
- First Aid/Emergency Care
- General Medical Care
• Health Counseling
• Blood Pressure screening
• Medical Referrals
• Psychological services
• STD information and referral

Nominal Fee Services:
• Physical Exams (including paps)
• Lab Services
• TB testing
• Immunizations and TB testing
• Women's Health and Family Planning
• Acne Management
• Treatments such as nebulizer, wart removal, minor laceration repairs, IV therapy, etc.
• Prescription medications (common antibiotics)

These services are funded by the student health fees and are available only to students enrolled in at least one on-campus class. A nurse is on duty during hours of operation. A medical doctor or nurse practitioner is available by appointment only. Nurse, doctor, and nurse practitioner visits are free. Some medical procedures may also require a fee.

For the protection of college students and personnel, students may be asked to supply health records. In addition, the college may require health consultations and physical examinations when they appear necessary. All students are strongly encouraged to obtain immunizations against communicable diseases as recommended by public health authorities. As always, medical confidentiality binds all verbal and written communication.

S-103 (858) 536-7881 or (619) 388-7881
Monday - Thursday 9:00 a.m. - 6:00 p.m. Friday 9:00 - 1:00 (Fall and Spring semesters) Summer Hours vary. Closed weekends and holidays.

Student Accident Insurance
The Student Accident Insurance Plan provides coverage for on-campus or college-related injuries. This insurance covers most reasonable charges. The student, however, is ultimately responsible for any medical expenses incurred. Evening students taking physical education or designated "hazardous" classes are also covered.

Student Accident Insurance is co-insurance. Students covered by a primary health organization or any other type of medical insurance should first seek treatment and payment from the provider or insurance company. All student claims are made through the Student Health Services office. The student, however, is ultimately responsible for any medical expenses incurred.

Campus Life

Student Activities
The student activities program is designed to be an integral part of the total college experience. It provides an avenue for student involvement and offers an opportunity for students to contribute to the growth of themselves, the College, and the community.

Office of Student Affairs
Located in the S-100 building, the Office of Student Affairs can provide guidance in certifying a club or organization, information on leadership development and scholarship opportunities. It serves as a focal point for service and leadership resources. For more information contact the Office of Student Affairs at (858) 536-4313 or (619) 388-7313.

Student Government
The principles of active student government are well established at San Diego Miramar College. The Associated Student Council (ASC) is the College-recognized student government organization established for the purpose of promoting and representing the best interests of the students and the College. Through involvement in the Associated Student Council (ASC), the opportunity exists for involvement in student government, development in leadership skills, and the planning and development of special programs and services. Student representatives on the ASC reflect the diverse constituencies of the student body and have the opportunity to serve on College and District committees which recommend policies and procedures in matters of student affairs, instruction, and fiscal planning.

Officers of the Associated Student Council are elected at large by the general student body. However, student government is not a closed governing body; ASC Offices and meetings are open to ALL interested students. Current district policy also allows for the election of a student to represent all the colleges in the District as a non-voting member of the Board of Trustees of the San Diego Community College District. The student member...
of the Board of Trustees serves as a chairperson of the United Student Council, the District-wide council serving all students in the District.

Any student who participates in student government may not have any Policy 3100 violations of suspension or greater, as stated on their official student record.

For more information contact the ASC Office at (858) 536-7877 or (619) 388-7877 (S-101B).

**Associated Students Membership**

Support your AS by purchasing a AS membership. The membership entitles you to many special discounts and privileges. The revenues go to support various campus events and activities. Among the benefits:

- AS scholarship opportunities
- A free SDCCD transcript
- Discounts for campus events and activities
- A free student planner
- Discounts from various local merchants

**Student Clubs and Organizations**

Miramar College supports the idea that student clubs and organizations can enrich student campus life. It is a great way to meet others who are interested in similar types of extracurricular and co-curricular activities. You can join any of the many student clubs or start a new one to meet your needs. The following is a list of clubs and organizations that have been active at Miramar College:

- Black Student Union
- International Club
- Child Development Professionals
- Students in Free Enterprise (SIFE)
- EOPS Student Association
- U.S. Tennis Association
- Filipino-American Student Association (FASA)
- Parent Student Advisory Board
- Science Club
- M.A.G.I.C. Club
- Gay Lesbian Bisexual Transgender Student Union
- Latin American Club
- Miramar Model of the United Nations
- Oasis Christian Club

**Phi Theta Kappa (ΦθΚ)**

Miramar College International Honors Society

The Miramar Chapter of Phi Theta Kappa is an International Honors Society established for the purpose of recognizing outstanding scholarship and promoting campus activities, community service and maintaining academic ethics among two-year college students.

**Membership requirements:** Interested students must have completed 12 semester units within three semesters and have a cumulative grade point average of 3.25 or better. Temporary membership is open to recent high school graduates with a grade point average of 3.50.

Faculty Advisor: Professor Carmen Jay, Room C-202B

**Athletics**

The physical education facilities at Miramar College are available to students for informal activities. Full-time Miramar students may also participate on District athletic teams offered throughout San Diego Community College District. Contact the Office of the Vice President of Instruction, if you're interested in learning more about the district teams. Eligibility will be governed by District policy at the time of enrollment.

**Physical Education Classes/Intercollegiate Sports Disclaimer**

Participation in all sports and physical education activities involves certain inherent risks. Risks may include, but are not limited to, neck and spinal injuries that may result in paralysis or brain injury, injury to bones, joints, ligaments, muscles, tendons and other aspects of the muscular skeleton system; and serious injury, or impairment, to other aspects of the body and general health, including death. The San Diego Community College District, its officers, agents and employees are not responsible for the inherent risks associated with participation in physical education classes/intercollegiate sports.

Students are strongly advised to consult a physician prior to participating in any physical education activity.

**Journalism**

The widely recognized College newspaper, “The Sage,” provides students the opportunity for class workshops and actual experience in photograph, writing, editing and producing a newspaper.
Support Services

Student Accident Insurance Claims
Student accident insurance is co-insurance. Students covered by a primary health organization or any other type of medical insurance should first seek treatment and payment from that provider or insurance company. All student claims are made through the Health Services Office.

Student Bookstore
The Miramar College Bookstore located in Room D-301, stocks ALL required and optional textbooks and academic supplies. In addition, the Bookstore also carries a large assortment of school supplies, software, emblematic clothing, gifts, and snacks. Faculty, students, and staff can save 30% - 60% on academically priced software.

The Miramar Bookstore buys back textbooks everyday but Fridays. For the best return on your investment, sell your books for cash during finals week.

Hours of operation are extended during the first few weeks of each semester. Regular Semester Hours are as follows: Monday - Thursday 9:00 AM - 7:00 PM
Friday - Closed

City Bookstore Hours: Monday - Thursday 7:45 AM - 7:00 PM, Friday 7:45 AM - 1:00 PM.
Mesa Bookstore Hours: Monday - Thursday 7:45 AM - 7:00 PM, Friday 7:45 AM - 12:00 PM.

College Dining Facilities
The Miramar College Cafeteria, located in room D-202, offers a la carte items, meals, snacks and beverages. During the fall and spring semesters, the cafeteria is open Monday through Friday. Regular hours of operation are posted and printed in the schedule of classes.

Food service is provided during the Summer sessions. Outdoor vending machine service is available at the south end of the A-100 building and on the north side of the U-100 building.

College Police Department
The College Police Department, with offices located in room B-102, is responsible for providing public safety, law enforcement and crime prevention services. Its mission is to maintain peace and order and a safe learning environment for all members of the campus community. It is also responsible for administering the campus parking program, lost and found and building security program.

Emergency services are provided 24 hours a day. Police business offices are open as follows:

<table>
<thead>
<tr>
<th>Location</th>
<th>Phone Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miramar College</td>
<td>(858) 536-7353, (619) 388-7353</td>
</tr>
<tr>
<td>City College</td>
<td>(619) 388-7405, (619) 388-7353</td>
</tr>
<tr>
<td>Mesa College</td>
<td>(619) 388-6405, (619) 388-7886</td>
</tr>
</tbody>
</table>

Police Escort and Related Services
The college police are available to provide escort service, 7:00 am to 10:00 pm, Monday - Friday. Students who wish use these services, should go to the College Police Office at the following locations for assistance:

City College: T-211
Mesa College: J-202
Miramar College: B-102

Escorts and police services at other campuses available anytime by calling College Police Dispatch at (619) 388-6405 or (858) 536-7886.

Parking
Parking permits are available for purchase during registration through ClassTalk, Reg-e, or at the Accounting Office in C-303. Permits purchased at the Accounting Office after the add deadline must be picked up at the College Police Office in room B-102. Automobile Permits (hanger included) are $30.00, Carpool Permits are $30.00 (Mesa only) see College Police for information, and $15.50 for motorcycles (per semester). Vehicles parked on campus without valid permits are subject to citation. Holds will be placed on student records for outstanding parking fine balances in excess of $100. Special parking is available for students with disabilities with a valid state issued placard.

Parking permits are not required in the student lots 12 noon - 6:00 p.m. daily or on weekends.

Vehicle Immobilization ("Booting")
Warning: Vehicles that accumulate five (5) or more unpaid parking citations may be immobilized “booted” or impounded.
Emergency Calls
The college will not interrupt classroom instruction to deliver messages, except in extreme emergencies. All calls/inquiries should be referred to the College Police Dispatch at (619) 388-6405 or (858) 536-7886.
Academic Information and Regulations
Academic Information

Honors
The Honors Program is open to any student who meets appropriate general and departmental criteria. Honors classes are designed to provide strongly-motivated students with a more in-depth or cross-disciplinary curriculum and a highly interactive classroom experience. Typical assignments emphasize critical thinking, extensive reading, writing and student presentations and critiques. Activities may also include opportunity for individual research projects, close interaction with faculty and participation in community and cultural events. The Honors Program can be found in all disciplines (vocational, liberal arts, fine arts, sciences, business, etc.). For specific criteria and other information, please consult the schedule of classes or contact your campus Honors Coordinator Carmen Jay, at (619) 388-7894, or via email at cjay@sdccd.net.

Dean's List
A Dean's Honor List is compiled at the close of each academic year (fall and spring). To be eligible for the Dean's Honor List, a student must complete 12 units or more that academic year and have earned a grade point average of 3.5 or better.

Phi Theta Kappa International Honor Society (ΦθΚ)
Beta Iota Lambda Chapter of Phi Theta Kappa
Beta Iota Lambda is the Miramar College chapter of the international honor society, Phi Theta Kappa, the largest and one of the most prestigious honor societies in higher education. PTK focuses on the four Hallmarks of Scholarship, Leadership, Service, and Fellowship.

Membership requirements: To be eligible, you must have completed 12 units of coursework leading to an associate degree program and you must have a grade point average of 3.25. Provisional membership is available for part-time students and for recent high school graduates.

Applications and further information are available in room C-202B, by phone (619) 388-7532, or by email at cjay@sdccd.net.

Class Attendance
Enrollment in college assumes maturity, seriousness of purpose, and self-discipline. Every student is expected to attend each meeting of all classes for which he/she is registered, to arrive on time, and to stay for the full class period. The college recognizes that absences occur as a result of circumstances beyond a student's control as well as from a student's failure to accept responsibility for attending class regularly. It is with the intent of providing for the orderly management of the colleges that the Board of Trustees established the following rules:

1) Attendance shall be taken and recorded at each regularly scheduled class meeting.
2) Instructors may excuse absences when the absence results from illness, accident, religious observances, holidays, other circumstances beyond the student's control, or participation in authorized professional or college activities.
3) Instructors shall determine what work should be made up.
4) Any student absent from the first meeting of a class may be dropped by the instructor.
5) All rosters shall be cleared of inactive enrollment as of the census date. Inactive enrollment results when students do not attend the first class meeting, or when students have accumulated unexcused absences in excess of 12% of the total class hours.
6) Any student accumulating absences that exceed 6% of the total hours a class is scheduled to meet during its full term may be dropped by the instructor.
7) FOR VETERANS ONLY: To satisfy Veterans reporting requirements, the interval between the last date attended and the date dropped (the date the drop is processed) shall not exceed 22 calendar days.
8) Tardiness and leaving class early may be treated in the same manner as are absences.
9) All drops (administrative, instructor, or student initiated) shall be recorded on the student's record in the same manner.

10) Final grades may be affected by attendance to the extent that the instructor has included attendance in the “method by which the final grade is determined” and has provided this information to the students in the course syllabus.

Grading System

Unit of Credit: A unit of credit represents one hour of lecture or recitation and two hours of preparation per week, or three hours of laboratory per week for one semester.

<table>
<thead>
<tr>
<th>Grades</th>
<th>Standing</th>
<th>Grade Points per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>Passing - less than satisfactory</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>Fail</td>
<td>0</td>
</tr>
</tbody>
</table>

CR Credit Units earned not counted in GPA
NC No Credit Units not counted in GPA

The grade point average (GPA) is determined by dividing the total grade points earned by the total grade point units completed as listed in the chart above.

Administrative symbols: CR/NC - Credit/No Credit; I - Incomplete; IP - In Progress; RD - Report Delayed; W - Withdrawal. Administrative symbols are not used in the computation of GPA. See below for further explanation.

Credit/No Credit (CR/NC) is a non punitive grading system where such units earned will be counted in satisfaction of curricular requirements but will be disregarded in determining a student's grade point average. For more specific information, refer to the discussion of the Credit/No Credit Policy on page 4.

Incomplete: A symbol of “I,” Incomplete, may be assigned by an instructor when a student has been unable to complete academic work for unforeseeable, emergency and justifiable reasons at the end of a term. A copy of the “Assignment of Incomplete” form will be mailed to the student and the original retained in the Admissions Office. A final grade will be assigned when the work stipulated has been completed and evaluated by the instructor or when the time limit for completion of the work has passed. An “I” must be made up no later than one year following the end of the term in which it was assigned. In the event of unusual, verifiable circumstances beyond the student's control, a petition may be filed in the Office of the Vice President, Student Services for extension of the one-year time limit. Course repetition is not permitted to remove an Incomplete.

Withdrawal: An official withdrawal from classes may be requested by the student or initiated on his/her behalf by the instructor or Vice President, Student Services.

The following conditions apply to official withdrawal:

1) No record of the class will be entered on the student's permanent record if the official withdrawal is made by the deadline to drop without a "W" being recorded as published in the schedule of classes.

2) If the withdrawal is made after the deadline for withdrawing without a "W" and prior to the deadline for withdrawal published in the schedule of classes for that session, a "W" will be recorded on the student's permanent record. No exceptions to this policy will be made. Petitions will not be accepted for exception to policy.

3) A student attending a session after the deadline for withdrawal will not be eligible to receive a "W" and must be assigned an academic grade or an administrative symbol by the instructor. Exceptions to this policy will be made only upon verification of extreme circumstances beyond the control of the student. Petitions requesting exception must be filed in the Admissions Office.

4) Withdrawal (W) symbols will be used in the calculation of lack of progress probation and disqualification status.

5) Students on active duty or reserve duty may petition for a "military" withdrawal. This withdrawal is not calculated in the determination of academic progress and is noted on the student's academic record.

In Progress: A symbol of “IP,” In Progress, will be assigned when a class extends beyond the normal end of a semester or Summer session, that is, when the class “carries over” from one term to the next. The appropriate grade, however, shall be assigned and appear on a student's record for the term during which the course is completed. The “IP” will remain on the
academic record. The “IP” shall not be used in the calculation of a student's grade point average.

Grade Challenge
Final grades will be issued at the end of each semester. In the absence of mistake, fraud, incompetence, or bad faith, the determination of the student's grade by the instructor shall be final once they have been filed in the Admissions Office and recorded by the District Records Office.

The college will not accept a challenge to a grade change or request for change of a student's academic record beyond five years from the date of issuance. Challenges must be processed under District Policy 3001.1 in the Office of the Vice President, Instruction. Students wishing to challenge a grade should first attempt to resolve the challenge informally with the instructor. If not resolved at the level of the instructor, the student should proceed by submitting the complaint in writing to the department chair, school dean, Vice President of Instruction, and finally, to the College President.

Credit/No Credit Grading Policy
Consistent with District policy, a student in good standing may elect to be graded on a Credit/No Credit basis in a course. A grade of “Credit” (CR) shall be awarded only for work which otherwise would have received a grade of “C” or better. Work that would have received a “D” or “F” will be graded “No Credit” (NC). The units earned will be counted in satisfaction of program requirements, but will be disregarded in determining a student's grade point average.

IMPORTANT: Students who plan to transfer to a four-year institution should review the Credit/No Credit acceptance policy of the transfer institution prior to petitioning for this grading option. Restrictions in the San Diego Community College District also apply.

Limitations:
1) No course required in the student's major may be taken for Credit/No Credit. Some departments may limit this option further.
2) No more than 12 units of a student's coursework completed in the San Diego Community College District may be graded on a Credit/No Credit basis. Courses offered only on a Credit/No Credit basis are excluded from this limit.

Conditions:
1) Students who wish to be graded on a Credit/No Credit basis must submit a petition to the Admissions Office or change their grading option through Reg-e by the deadline date listed in the appropriate schedule of classes. Deadline information can also be found at http://studentsweb.sdccd.net. No exceptions to the deadline will be made.
2) An evaluation on a Credit/No Credit basis may not later be changed to a letter grade nor may the reverse occur. No exceptions to this condition will be made. Petitions will not be accepted for exception to policy.

There are courses in which Credit/No Credit grades are used exclusively; these are designated in the catalog course description by the statement “Credit/No Credit Only.” In addition, there are courses which cannot be taken on a Credit/No Credit basis; these are designated in the course description by the statement “Letter Grade Only.”

Standards of Academic Progress
Students are in good academic standing when they have a 2.0 grade point average or higher and have completed at least 60% of units they have attempted. There are two kinds of probation and disqualification, one based upon GPA (Academic Performance) and the other based upon the number of units completed (Progress Performance).

Certain programs may have more stringent standards for academic progress. Consult the program director for more information.

Students enrolled in the core curriculum of medically-related programs will be governed by the probation and disqualification policies as outlined in the program policy manuals that reflect the tenets of safe medical practice and respond to program accreditation guidelines.

Academic Probation*
Students whose grade point average falls below a 2.0 after completion of 12 units in the San Diego Community College District will be placed on academic probation and remain there until their overall GPA reaches or exceeds 2.0.
Academic Disqualification
A student on academic probation status is disqualified when his/her non-cumulative GPA falls below 2.0 in a subsequent semester. An enrollment hold will be placed on the student’s record. Students who are disqualified after registering for the subsequent semester will be administratively dropped from all classes.

Lack of Progress Probation*
A student who has attempted a total of 12 or more units as shown by the official academic record, shall be placed on lack of progress probation when the percentage of all (cumulative) units for which entries of “W,” “I,” and “NC” are recorded reaches or exceeds 40%.

Lack of Progress Disqualification
A student who has been placed on lack of progress probation shall be disqualified and an enrollment hold placed on the student’s record when the percentage of units for which entries of “W,” “I,” and “NC” are recorded in a subsequent semester (not cumulative), reaches or exceeds 40%. Students who are disqualified after registering for the subsequent semester will be administratively dropped from all classes.

* EXCEPTIONS:
Provisional, Joint Diploma and Special Admit High School students who do not maintain good academic standing will be automatically disqualified. PROBATIONARY STATUS WILL NOT APPLY!

Readmission after Disqualification
Note: Disqualification status is determined based upon Progress Performance, Academic Performance, or a combination of both.

• First Disqualification
Students who wish to be considered for readmission after the first disqualification will be required to meet with a counselor and develop a Student Success Plan prior to being readmitted. Students who are disqualified after registering for the next semester will be administratively dropped from all classes.

• Second Disqualification
Students who are disqualified a second time will be required to sit out for one semester. Students who are disqualified after registering for the next semester will be administratively dropped from all classes.

• Third Disqualification
Students who are disqualified a third time (and each disqualification thereafter) will be required to sit out for one year. Students who are disqualified after registering for the next semester will be administratively dropped from all classes.

Academic Regulations

Honest Academic Conduct
Honesty and integrity are integral components of the academic process. Students are expected to be honest and ethical at all times in their pursuit of academic goals in accordance with Policy 3100, Student Rights, responsibilities and Administrative Due Process. Procedure 3100.3 describes the Academic and Administrative Sanctions for Students who are found to be cheating. A copy of Procedure 3100.3 can be obtained in the Office of the Vice President of Student Services.

Course Repetition Policy
No course in which a “C” or better grade has been earned may be repeated. Students who believe that they have a compelling reason for an exception to policy may file a petition with the Vice President, Student Services. Petitions are available in the Evaluations Office.

Additional repetitions of a course to accommodate a student’s disability-related needs may be permitted. For students with disabilities, course repetition is determined on an individual student basis. Contact a DSPS counselor or DSPS instructor for more information.

Academic Renewal by Course Repetition
Each course in which an unsatisfactory grade (“D,” “F,” or “NC”) has been earned may be repeated one time only. The course being repeated must be the same as the original course, not its equivalent. Only the

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newly-earned units and grades will be used in computing the grade point average.

**Academic Renewal Without Course Repetition**

A student with a record of substandard academic performance that is not reflective of present demonstrated ability, may petition to have the substandard grades disregarded in computation of his/her grade point average.

The following conditions apply:

1) The student must be enrolled in, and attending a regionally accredited college/university, and working toward a degree or certificate of achievement.

2) A maximum of 24 semester units or two semesters or summer sessions may be disregarded. For purposes of academic renewal for summer work, a summer session will be defined as ALL COURSES WHICH COMMENCE AFTER THE TERMINATION OF THE SPRING SEMESTER AND END PRIOR TO THE COMMENCEMENT OF THE FALL SEMESTER. MAC, short-term, and carryover classes will be considered to be part of the semester or session in which they are posted to the student's permanent record.

3) For any semester/session in which course work is to be disregarded, all courses in that semester/session will be disregarded.

4) No courses taken during the disregarded semester(s) or session(s), even if satisfactory, may be applied toward degree or certificate requirements.

5) One year must have lapsed since the semester to be disregarded was completed.

6) The student must successfully complete 12 units in an accredited college or university with a grade point average of 2.0 subsequent to the work to be disregarded. ALL courses taken during the semester in which the student reaches or exceeds this 12-unit minimum will be used in computing the 2.0 grade point average.

7) Similar actions by other accredited institutions will be honored under the district policy; however, similar actions by another institution will be counted as part of the maximum of 24 units to be disregarded.

8) The permanent academic record shall be annotated in such a manner that the record of all work remains legible, ensuring a true and complete academic record.

9) Recalculation of grade point average may be used toward qualification for graduation with honors.

10) Work taken at another institution may be forgiven in the computations of that work for purposes of graduation from one of our District colleges, under the regulations stated above.

11) Students with previously earned degrees: Courses used to fulfill requirements of a degree are not eligible for Academic Renewal.

**NOTE:** Transcripts from all institutions attended must be officially on file.

**Transcripts of Record**

A student may obtain an official college transcript of record by filing a request in person at the Admissions Office or by mail at the Office of the Registrar, San Diego Community College District, Administrative Office 3375 Camino del Rio South, San Diego, CA 92108. Payment of fees must be made prior to processing a request for transcripts. The following policy has been adopted by the San Diego Community College District Board of Trustees regarding the issuance of transcripts of record:

1) The first two transcripts in your lifetime will be issued without charge.

2) There will be a charge of $5.00 for each additional transcript.

3) All transcript requests are processed within 10 working days except “RUSH” orders.

4) A $5.00 special handling fee will be charged for all “RUSH” order transcript requests. The special handling fee will be charged per request.

All official copies of the student’s permanent record are in the Office of the Registrar. The Office of the Registrar will certify only to the accuracy of the records prepared by and issued directly from that office to another institution.

**Transcripts of Prior Academic Credit**

Students with credit from other colleges and universities must file official transcripts at the time of application for admission.

- Official transcripts are those sent directly from one institution to another.
- Transcripts will only be accepted for one year after issuance.
Transcripts brought in by students may be accepted for unofficial purposes such as prerequisite clearance.

Transcripts are required even if prior credits do not appear relevant or if units were taken years ago.

Students receiving financial aid or veterans benefits must have transcripts on file within one semester.

Certain programs require transcripts before admission to the program.

Official transcripts from other institutions become the property of the college and will not be duplicated or returned.

Official transcripts should be sent to the following address:
San Diego Community College District
3375 Camino del Rio South, Rm. 100
San Diego, CA 92108-3883

Please note: Foreign transcripts are not evaluated by the college. This service is available through outside companies for a fee. Contact the college Evaluation Office for additional information.

**Academic Credit for Nontraditional Education**

Academic credit may also be available to currently enrolled SDCCD students for skills or knowledge not obtained by formal scholastic experience or for prior course work with content determined equivalent to district courses.

Credit is available through the following:

- **Advanced Placement Examinations (AP).**
- **College-Level Examination Program (CLEP).**
- **Defense Activity for Non-Traditional Education Support (DANTES).**
- **International Baccalaureate (IB).**

A maximum of 30 cumulative units may be granted for acceptable scores on any combination of Advanced Placement (AP), College Level Examination Program (CLEP), Defense Activity for Non-Traditional Education Support (DANTES), or International Baccalaureate (IB) examinations. All official transcripts must be on file, and copies of test scores must be submitted to the college Evaluations Office to receive credit.

To obtain credit, the student must be currently enrolled and working toward an associate degree or certificate of achievement. Credit granted cannot be used to meet the district in-residence requirements nor will such credit be included in the student's current study load.

Limitations on credit by standardized examination:

- Tests cannot be used to meet the American Institutions nor laboratory requirements. The English composition requirement can be met by the AP and IB exams.
- Credit will not be granted for equivalent courses completed.
- Grades are not assigned, nor is the credit used in calculating grade point average.
- Departmental approval is required to satisfy requirements in the student's major.
- Credit granted by SDCCD does not necessarily transfer to other institutions. Transferability of credit is determined by the receiving college or university.

The tables below indicate the score necessary, the credit allowed, and the area(s) satisfied for each of the examinations accepted for credit.

### College Level Examination Program (CLEP)

<table>
<thead>
<tr>
<th>CLEP Examination</th>
<th>Required Score</th>
<th>Number of Credits Granted</th>
<th>Credit Granted for District</th>
<th>Credit Granted for CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting, Principles of</td>
<td>50</td>
<td>4</td>
<td>Elective Credit</td>
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</tr>
<tr>
<td>Algebra</td>
<td>50</td>
<td>5</td>
<td>Math Comp &amp; Area A2</td>
<td></td>
</tr>
<tr>
<td>Algebra – Trigonometry</td>
<td>50</td>
<td>3</td>
<td>Math Comp &amp; Area A2</td>
<td>Area B4</td>
</tr>
<tr>
<td>American Government</td>
<td>50</td>
<td>3</td>
<td>Area D</td>
<td></td>
</tr>
</tbody>
</table>
### Academic Information and Regulations

To request an official CLEP transcript, write to:
Educational Testing Service, P. O. Box 6604, Princeton, NJ 08541


CLEP Tests can **NOT** be used to clear IGETC certification nor some degree requirements. See a counselor.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Hours</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Literature</td>
<td>50</td>
<td>6</td>
<td>Area C</td>
</tr>
<tr>
<td>Analyzing and Interpreting Literature</td>
<td>50</td>
<td>6</td>
<td>Area C</td>
</tr>
<tr>
<td>Biology</td>
<td>50</td>
<td>3</td>
<td>Area B</td>
</tr>
<tr>
<td>Business Law, Introductory</td>
<td>50</td>
<td>3</td>
<td>Elective Credit</td>
</tr>
<tr>
<td>Calculus with Elementary Functions</td>
<td>50</td>
<td>5</td>
<td>Math Comp and Area A2, Area B4</td>
</tr>
<tr>
<td>Chemistry</td>
<td>50</td>
<td>3</td>
<td>Area B</td>
</tr>
<tr>
<td>College Mathematics</td>
<td>50</td>
<td>3</td>
<td>Elective Credit, Area A2, Area B4</td>
</tr>
<tr>
<td>Composition, Freshman</td>
<td>50</td>
<td>3</td>
<td>Elective Credit</td>
</tr>
<tr>
<td>Educational Psychology, Introduction to</td>
<td>50</td>
<td>3</td>
<td>Area D</td>
</tr>
<tr>
<td>English Composition (with or without Essay)</td>
<td>50</td>
<td>3</td>
<td>Elective Credit</td>
</tr>
<tr>
<td>English Literature</td>
<td>50</td>
<td>6</td>
<td>Area C</td>
</tr>
<tr>
<td>French – Level I</td>
<td>50</td>
<td>5</td>
<td>Area C</td>
</tr>
<tr>
<td>French – Level II</td>
<td>52</td>
<td>10</td>
<td>Area C</td>
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<tr>
<td>German – Level I</td>
<td>50</td>
<td>5</td>
<td>Area C</td>
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<tr>
<td>German – Level II</td>
<td>63</td>
<td>10</td>
<td>Area C</td>
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<tr>
<td>History of the U.S.: 1865 to the Present</td>
<td>50</td>
<td>3</td>
<td>Area D</td>
</tr>
<tr>
<td>History of the U.S.: Early Colonizations to 1877</td>
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<td>3</td>
<td>Area D</td>
</tr>
<tr>
<td>Human Growth and Development</td>
<td>50</td>
<td>3</td>
<td>Area D</td>
</tr>
<tr>
<td>Humanities</td>
<td>50</td>
<td>3</td>
<td>Area C</td>
</tr>
<tr>
<td>Information Systems and Computer Applications</td>
<td>50</td>
<td>3</td>
<td>Area A2</td>
</tr>
<tr>
<td>Macroeconomics, Principles of</td>
<td>50</td>
<td>3</td>
<td>Area D</td>
</tr>
<tr>
<td>Management, Principles of</td>
<td>50</td>
<td>3</td>
<td>Elective Credit</td>
</tr>
<tr>
<td>Marketing, Principles of</td>
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<td>Elective Credit</td>
</tr>
<tr>
<td>Microeconomics, Principles of</td>
<td>50</td>
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<td>Area D</td>
</tr>
<tr>
<td>Natural Science</td>
<td>50</td>
<td>3</td>
<td>Area B</td>
</tr>
<tr>
<td>Psychology, Introductory</td>
<td>50</td>
<td>3</td>
<td>Area D</td>
</tr>
<tr>
<td>Social Sciences and History</td>
<td>50</td>
<td>3</td>
<td>Area D</td>
</tr>
<tr>
<td>Sociology, Introductory</td>
<td>50</td>
<td>3</td>
<td>Area D</td>
</tr>
<tr>
<td>Spanish – Level I</td>
<td>50</td>
<td>5</td>
<td>Area C</td>
</tr>
<tr>
<td>Spanish – Level II</td>
<td>54</td>
<td>10</td>
<td>Area C</td>
</tr>
<tr>
<td>Trigonometry</td>
<td>50</td>
<td>3</td>
<td>Math Comp and Area A2</td>
</tr>
<tr>
<td>Western Civilization I: Ancient Near East to 1648</td>
<td>50</td>
<td>3</td>
<td>Area C or D</td>
</tr>
<tr>
<td>Western Civilization II: 1648 to the Present</td>
<td>50</td>
<td>3</td>
<td>Area C or D</td>
</tr>
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</table>
# DANTES Subject Standardized Test (DANTES/DSST)

<table>
<thead>
<tr>
<th>DANTES Examination</th>
<th>Required Score</th>
<th>Number of Credits Granted</th>
<th>Credit Granted for District</th>
<th>Credit Granted for CSU</th>
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</thead>
<tbody>
<tr>
<td>Fundamental College Algebra</td>
<td>50</td>
<td>3</td>
<td>Math Comp &amp; Area A2</td>
<td>No Credit</td>
</tr>
<tr>
<td>Principles of Statistics</td>
<td>50</td>
<td>3</td>
<td>Math Comp &amp; Area A2</td>
<td>No Credit</td>
</tr>
<tr>
<td>Art of the Western World</td>
<td>50</td>
<td>3</td>
<td>Area C</td>
<td>No Credit</td>
</tr>
<tr>
<td>Contemporary Western Europe: 1946-1990</td>
<td>50</td>
<td>3</td>
<td>Area C</td>
<td>No Credit</td>
</tr>
<tr>
<td>An Introduction to the Modern Middle East</td>
<td>50</td>
<td>3</td>
<td>Area D</td>
<td>No Credit</td>
</tr>
<tr>
<td>Human / Cultural Geography</td>
<td>50</td>
<td>3</td>
<td>Elective</td>
<td>No Credit</td>
</tr>
<tr>
<td>A History of the Vietnam War</td>
<td>50</td>
<td>3</td>
<td>Elective</td>
<td>No Credit</td>
</tr>
<tr>
<td>Foundations of Education</td>
<td>50</td>
<td>3</td>
<td>Elective</td>
<td>No Credit</td>
</tr>
<tr>
<td>Lifespan Developmental Psychology</td>
<td>50</td>
<td>3</td>
<td>Elective</td>
<td>No Credit</td>
</tr>
<tr>
<td>General Anthropology</td>
<td>50</td>
<td>3</td>
<td>Elective</td>
<td>No Credit</td>
</tr>
<tr>
<td>Introduction To Law Enforcement</td>
<td>50</td>
<td>3</td>
<td>Area D</td>
<td>No Credit</td>
</tr>
<tr>
<td>Criminal Justice</td>
<td>50</td>
<td>3</td>
<td>Elective</td>
<td>No Credit</td>
</tr>
<tr>
<td>Fundamentals of Counseling</td>
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<td>3</td>
<td>Elective</td>
<td>No Credit</td>
</tr>
<tr>
<td>Principles of Financial Accounting</td>
<td>50</td>
<td>3</td>
<td>Elective</td>
<td>No Credit</td>
</tr>
<tr>
<td>Human Resource Management</td>
<td>50</td>
<td>3</td>
<td>Elective</td>
<td>No Credit</td>
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<tr>
<td>Organizational Behavior</td>
<td>50</td>
<td>3</td>
<td>Elective</td>
<td>No Credit</td>
</tr>
<tr>
<td>Principles of Supervision</td>
<td>50</td>
<td>3</td>
<td>Elective</td>
<td>No Credit</td>
</tr>
<tr>
<td>Introduction to Computing</td>
<td>50</td>
<td>3</td>
<td>Elective</td>
<td>No Credit</td>
</tr>
<tr>
<td>Introduction to Business</td>
<td>50</td>
<td>3</td>
<td>Area D</td>
<td>No Credit</td>
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<tr>
<td>Personal Financial</td>
<td>50</td>
<td>3</td>
<td>Elective</td>
<td>No Credit</td>
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<tr>
<td>Business Mathematics</td>
<td>50</td>
<td>3</td>
<td>Math Comp &amp; Area A2</td>
<td>No Credit</td>
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<tr>
<td>Astronomy</td>
<td>50</td>
<td>3</td>
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<tr>
<td>Here’s to Your Health</td>
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<td>3</td>
<td>Health Education</td>
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<tr>
<td>Environment and Humanity: the Race to Save the Planet</td>
<td>50</td>
<td>3</td>
<td>Elective</td>
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<td>Principles of Physical Science I</td>
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<td>Physical Geography</td>
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<td>Area B</td>
<td>No Credit</td>
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<tr>
<td>Technical Writing</td>
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<td>3</td>
<td>Elective</td>
<td>No Credit</td>
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<td>Ethics in America</td>
<td>50</td>
<td>3</td>
<td>Elective</td>
<td>No Credit</td>
</tr>
<tr>
<td>Introduction to World Religions</td>
<td>50</td>
<td>3</td>
<td>Area C</td>
<td>No Credit</td>
</tr>
<tr>
<td>Principles of Public Speaking</td>
<td>50</td>
<td>3</td>
<td>Area A2</td>
<td>No Credit</td>
</tr>
</tbody>
</table>

To request an official DANTES transcript, write to:
The Chauncey Group International, Attn: DSST Program, P. O. Box 6604, Princeton, NJ 08541-6604

DANTES test can *not* be used to clear IGETC certification nor some degree requirements. See a counselor.
<table>
<thead>
<tr>
<th>Advanced Placement Examination Required Score</th>
<th>SDCCD Course Equivalents</th>
<th>CSUGE Certification</th>
<th>IGETC Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Art History</strong> 3, 4, or 5</td>
<td>Art 110 or 111 (6 units)</td>
<td>Art 110 or 111 (3 units)</td>
<td>Art 110 or 111 (3 units)</td>
</tr>
<tr>
<td><strong>Art Studio - Drawing</strong> 3, 4, or 5</td>
<td>Art 150a, 155a (6 units)</td>
<td>No Credit</td>
<td>No Credit</td>
</tr>
<tr>
<td><strong>Biology</strong> 3, 4, or 5</td>
<td>Area B (3 units)</td>
<td>Area B2 (3 units)</td>
<td>Area 5 - Biol. Sci. (3 units, No Lab)</td>
</tr>
<tr>
<td><strong>Chemistry</strong> 3, 4, or 5</td>
<td>Chemistry 200 &amp; Elective (6 units)</td>
<td>Area B1 &amp; B3 (6 units)</td>
<td>Area 5 - Phys. Sci. (3 units, No Lab)</td>
</tr>
<tr>
<td><strong>Classics - Latin Literature</strong> 3, 4, or 5</td>
<td>Area C (6 units)</td>
<td>Area C2 (3 units)</td>
<td>No Credit</td>
</tr>
<tr>
<td><strong>Classics - Vergil</strong> 3, 4, or 5</td>
<td>Area C (6 units)</td>
<td>Area C2 (3 units)</td>
<td>No Credit</td>
</tr>
<tr>
<td><strong>Computer Science - A</strong> 3, 4 or 5</td>
<td>Area A2 &amp; Math Competency (3 units)</td>
<td>No Credit</td>
<td>No Credit</td>
</tr>
<tr>
<td><strong>Computer Science - AB</strong> 3, 4 or 5</td>
<td>Area A2 &amp; Math Competency (6 units)</td>
<td>No Credit</td>
<td>No Credit</td>
</tr>
<tr>
<td><strong>Economics - Macro</strong> 3, 4, or 5</td>
<td>Economics 120 (3 units)</td>
<td>Economics 120 (3 units)</td>
<td>Economics 120 (3 units)</td>
</tr>
<tr>
<td><strong>Economics - Micro</strong> 3, 4, or 5</td>
<td>Economics 121 (3 units)</td>
<td>Economics 121 (3 units)</td>
<td>Economics 121 (3 units)</td>
</tr>
<tr>
<td><strong>English Composition Literature</strong> 3, 4, or 5</td>
<td>English 101 &amp; Area C (6 units)</td>
<td>English 101 &amp; Area C (6 units)</td>
<td>Area 1A or Area 3 - Hum. (3 units)</td>
</tr>
<tr>
<td><strong>English Language Composition</strong> 3, 4, or 5</td>
<td>English 101 (3 units)</td>
<td>English 101 (3 units)</td>
<td>English 101 (3 units)</td>
</tr>
<tr>
<td><strong>French Language</strong> 3, 4 or 5</td>
<td>Area C (6 units)</td>
<td>Area C2 (6 units)</td>
<td>Clear Foreign Language Requirement</td>
</tr>
<tr>
<td><strong>German Language</strong> 3, 4, or 5</td>
<td>Area C (6 units)</td>
<td>Area C2 (6 units)</td>
<td>Clear Foreign Language Requirement</td>
</tr>
<tr>
<td><strong>Government - Comparative</strong> 3, 4, or 5</td>
<td>Political Science 103 (3 units)</td>
<td>Political Science 103 (3 units)</td>
<td>Political Science 103 (3 units)</td>
</tr>
<tr>
<td><strong>Government - U.S.</strong> 3, 4, or 5</td>
<td>Political Science 101 (3 units)</td>
<td>Political Science 101 (3 units)</td>
<td>Political Science 101 (3 units)</td>
</tr>
<tr>
<td><strong>History - European</strong> 3, 4, or 5</td>
<td>Area C (6 units)</td>
<td>Area C2 or Area D6 (3 units)</td>
<td>Area 3 - Hum. (3 units)</td>
</tr>
<tr>
<td><strong>History - U.S.</strong> 3, 4, or 5</td>
<td>History 109 and Elective (6 units)</td>
<td>History 109 (3 units)</td>
<td>History 109 (3 units)</td>
</tr>
<tr>
<td><strong>Math - AB</strong> 3, 4, or 5</td>
<td>Math 119 (3 units)</td>
<td>Math 119 (3 units)</td>
<td>Math 119 (3 units)</td>
</tr>
<tr>
<td><strong>Physics B</strong> 3, 4, or 5</td>
<td>Area B (3 units)</td>
<td>Area B1 &amp; B3 (3 units)</td>
<td>Area 5 - Phys. Sci.  (3 units, No Lab)</td>
</tr>
<tr>
<td><strong>Physics C - Mechanics</strong> 3, 4, or 5</td>
<td>Area B (3 units)</td>
<td>Area B1 &amp; B3 (3 units)</td>
<td>Area 5 - Phys. Sci. (3 units, No Lab)</td>
</tr>
<tr>
<td><strong>Psychology</strong> 3, 4, or 5</td>
<td>Psychology 101 (3 units)</td>
<td>Psychology 101 (3 units)</td>
<td>Psychology 101 (3 units)</td>
</tr>
<tr>
<td><strong>Spanish Language</strong> 3, 4 or 5</td>
<td>Area C (6 units)</td>
<td>Area C2 (6 units)</td>
<td>Clear Foreign Language Requirement</td>
</tr>
<tr>
<td><strong>Spanish Literature</strong> 3, 4, or 5</td>
<td>Area C (6 units)</td>
<td>Area C2 (6 units)</td>
<td>No Credit</td>
</tr>
<tr>
<td><strong>Statistics</strong> 3, 4, or 5</td>
<td>Math 119 (3 units)</td>
<td>Math 119 (3 units)</td>
<td>Math 119 (3 units)</td>
</tr>
</tbody>
</table>

To request an official AP transcript, write to:
College Board / SAT Program, Princeton, NJ 08541
*Credit may not be earned at SDCCD for courses which duplicate credit already allowed through other means such as AP or credit-by-exam.

* IB tests can not be used to clear CSU, IGETC certification, nor some degree requirements.

**Credit by Examination designed and approved by individual disciplines**

The term “examination” means any written, oral or performance standards determined by the individual departments. Forms are available in the Evaluations Office.

**Credit for non-college credit vocational courses**

Students who complete non-college credit articulated courses (SDUSD/SDCCD) that are equivalent in subject matter, content, educational objectives, length of course, and performance standards and pass a college faculty approved examination for the course offered by the college may have these courses converted to college credit. Additional information is available in the Evaluations Office.

**Credit is also available for the following military experiences:**

A minimum of six months continuous active military service is required. At the time a student petitions for an associate degree evaluation, a military transcript should be submitted. Acceptable forms include:

- DD-214
- DD-295
- NAV/PERS 1070/604
- AARTS Transcript
- DD-2586
- SMART Transcript

Four units of credit to fulfill the Health Education and Physical Education requirements will be granted.

**Credit for Military School(s)** A student may receive additional credits for completed military schools if the student needs the units to complete the major or general education requirements or the general elective credits needed to complete the 60 units to graduate.

The college is guided by the associate degree/baccalaureate credit recommendations of schools contained in “A Guide to the Evaluation of Educational Experiences in the Armed Services,” published by the American Council on Education. More specific information may be obtained in the Evaluations Office.

**Service Members Opportunity College and SOCNAV/SOCMAR**

The San Diego Community Colleges have been designated as members of the Service Members Opportunity College (SOC). As members, these colleges provide educational assistance to active duty service members and agree to accept credit for military service schools as recommended by the American Council on Education. In addition, these institutions recognize other non-traditional sources for credit such as DANTES and CLEP examinations. The San Diego Community Colleges

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**International Baccalaureate Credit (IB)**

<table>
<thead>
<tr>
<th>EXAMINATION</th>
<th>SCORE</th>
<th>UNITS</th>
<th>SDCCD EQUIVALENT*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>4-7</td>
<td>4</td>
<td>Area B</td>
</tr>
<tr>
<td>English A1</td>
<td>4-7</td>
<td>6</td>
<td>Area A1 and English competency 3 units and Area C - 3 units</td>
</tr>
<tr>
<td>French</td>
<td>4-7</td>
<td>5</td>
<td>Area C</td>
</tr>
<tr>
<td>Geography</td>
<td>4-7</td>
<td>6</td>
<td>Area B - 3 units and Area D - 3 units</td>
</tr>
<tr>
<td>History of the Americas</td>
<td>4-7</td>
<td>6</td>
<td>Area D</td>
</tr>
<tr>
<td>Mathematics</td>
<td>6-7</td>
<td>6</td>
<td>Area A2 &amp; Competency</td>
</tr>
<tr>
<td>Psychology</td>
<td>5-7</td>
<td>3</td>
<td>Area D</td>
</tr>
<tr>
<td>Spanish A2 or Spanish B</td>
<td>4-7</td>
<td>6</td>
<td>Area C - 3 units and elective</td>
</tr>
</tbody>
</table>

- DD-295
- NAV/PERS 1070/604
- AARTS Transcript
- DD-2586
- SMART Transcript

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are also committed to military personnel who may choose to participate in the SOCNAV/SOCMAR (Service Members Opportunity College/Navy/Marine Corp.) Program Network. SOCNAV/SOCMAR was established to better serve highly mobile service members and their families. The San Diego Community Colleges are members of the Interdisciplinary Studies and Criminal Justice SOCNAV/SOCMAR Networks. For more information on these programs, contact the Military Education counselors at the following locations:

- ASW (619) 230-2331
- Naval Station 32nd St. (619) 233-5617
- MCAS (858) 536-7805
- Marine Corps Recruit Depot (MCRD) (619) 295-9974
- Sub Base (619) 553-7195

**U.S. Air Force and U.S. Army ROTC Programs**

Under the provisions of a special agreement with the United States Army, the United States Air Force, San Diego State University (SDSU), and this institution, students may participate in the Army or Air Force Reserve Officers Training Program (ROTC). San Diego Community College District students may enroll and attend ROTC classes at SDSU by contacting the Air Force ROTC at the Aerospace Studies Department (619) 594-5545 or the Army ROTC at the Military Science Department (619) 594-4943. The credits earned in these classes may be transferred as electives to meet the degree requirements of Miramar College.

**Responsibility for Meeting Requirements**

Each student must assume responsibility for compliance with the regulations of the college set forth in this catalog; for satisfying prerequisites for any course; and for selecting courses which will facilitate attainment of educational objectives.

The College does not assume responsibility for misinterpretation of policies and procedures as presented in this catalog. Counselors and advisors are available to assist in planning students’ programs. Any questions or doubts concerning this catalog material should be referred to the Office of the Vice President, Student Services.

**Petition for Exceptions**

Petitions for exceptions to graduation requirements, substitution of course requirements, or waiver of requirements are filed with the Evaluations Office. All petitions are acted upon by the appropriate college committees/offices.

**Statement of Open Courses**

It is the policy of the San Diego Community College District that, unless specifically exempted by statute, every course, section, or class offered by the District and reported for state aid shall be fully open to enrollment and participation by any person who has been admitted to the college and who meets course prerequisites.

**Academic Accommodation**

Students with verified disabilities who may require academic adjustments or auxiliary aids are strongly recommended to contact the Disabled Students Programs and Services (DSPS) Department, C-304, and complete orientation procedures well before classes begin. Contact DSPS early to ensure the timely processing of services. Students are encouraged to identify themselves to the appropriate instructors to discuss the details and timelines necessary to provide appropriate accommodations. Students enrolled in online courses are encouraged to contact the DSPS Office to request accommodation.

**Responsibility for Maintaining Accurate Registration**

It is the student's obligation to add, drop, or withdraw from classes before the deadlines stated in the schedule of classes. This applies even if the student has never attended class. Any student who anticipates difficulty in paying fees should check with the Financial Aid Office about eligibility and sources of assistance. Registration will be canceled for nonpayment of fees.

**Debt Owed to the College**

California Education Code Section 72237 and Title 5 Section 54640 state that grades, transcripts, diplomas, and registration privileges, or any combination thereof, shall be withheld from any student or former student who has been provided with written notice that he or she has failed to pay a proper financial obligation. Any item(s) withheld shall be released when the student satisfactorily meets the financial obligation. A service fee may be charged for all delinquent loans; any service fee would be determined by the total cost required to collect the delinquent loans.
Audit Policy
Auditing courses is not permitted under any circumstances. Students must be officially enrolled in all classes which they attend.

Student Right to Know
The Higher Education Act mandates that institutions of higher education disclose the completion of graduation rates of full-time degree-, certificate-, or transfer-seeking freshman students. The completion and transfer-out rates for full-time students seeking an Associate Degree, Certificate of Achievement, or transfer are:

<table>
<thead>
<tr>
<th></th>
<th>Completion Rates</th>
<th>Transfer-Out Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>City</td>
<td>13.1%</td>
<td>21.3%</td>
</tr>
<tr>
<td>Mesa</td>
<td>28.4%</td>
<td>30.5%</td>
</tr>
<tr>
<td>Miramar</td>
<td>17.1%</td>
<td>51.4%</td>
</tr>
</tbody>
</table>

Nondiscrimination Policy
The San Diego Community College District has a policy which prohibits discrimination in accordance with State and Federal laws. Students wishing to file complaints based upon discrimination should contact the campus Affirmative Action Officer in room C-302 or phone (619) 388-7840. Appeals may be made to the District Affirmative Action Officer at the District Administrative Office, 3375 Camino del Rio South, San Diego, CA 92108. Students who want to file a grievance under Section 504 of the 1973 Federal Rehabilitation Act should contact Disabled Student Programs and Services in room C-301 or call (619) 388-7312. Students who want to file a grievance under the Americans with Disabilities Act (ADA) should contact the Affirmative Action Officer Palisa Williams Rushin.

Gender Equity
The Gender Equity Coordinator facilitates the development or updating of the campus Gender Equity Plan in cooperation with committees that are responsible for equity concerns. For more information, contact the Dean of Business, Math & Sciences at (619) 388-7813, Room T-200.

Title IX Prohibiting Sex Discrimination in Education
San Diego Miramar College is committed to support all regulations under Title IX. “No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance.”

For further directions or inquiries, please contact the Title IX Coordinator at (619) 388-7313, Room S-101. Additional information may be obtained from the Office for Civil Rights, San Francisco, CA.

Policy Prohibiting Sexual Harassment
It is the policy of the San Diego Community College District to provide an educational environment that is free of sexual advances, requests for sexual favors, and other verbal or physical conduct or communications that constitute sexual harassment as defined and prohibited by federal and state statutes. Anyone with questions about this policy or anyone who wishes to file a complaint should contact the College Affirmative Action Officer or the District Affirmative Action Officer. The Vice President, Student Services is also available to provide assistance in matters of alleged sexual harassment. Procedures for filing a formal complaint of sexual harassment are described in District Procedure 4105.2. Copies of this procedure may be obtained from the Office of the Vice President, Student Services.

Drug and Alcohol Use
The San Diego Community College District is committed to providing a drug free environment. Any type of drug use, including alcohol, is dangerous and potentially life threatening. Drugs and alcohol adversely affect the body, mind and behavior. The effects vary from person to person and from usage to usage. Even low doses of drugs and alcohol can impair judgment and coordination. If you use drugs or alcohol, you risk overdose, accidents, dependence, ill health, as well as legal, financial and personal problems. The federal laws against drugs are divided into two categories: possession and distribution. The penalties are severe depending upon the type of drug, quantity of the drug, and any prior offenses. Possession will earn up to one year in prison and a $5,000 fine. Distribution will earn up to life in prison and an $8 million fine. State laws vary and may be more severe. District Policy 3100-Code of Conduct-states that use, possession, or distribution of narcotics or other controlled substances is prohibited while on the college premises or at college sponsored events. A student may be suspended or expelled for violation of this policy. A complete list of legal sanctions is available in the Vice President, Student Services Office. The colleges provide information on drug and alcohol treatment and prevention through seminars, courses, and the Student Health Services. Contact Student Health Services or the Vice President, Student Services Office for additional information.
Smoking Regulation
This procedure is applicable to all District facilities. It implements the Board policy of consonance with the City of San Diego’s ordinance regulating smoking in public facilities.

The success of this program is dependent upon the voluntary cooperation of the smoking and nonsmoking public. The District recognized the fact that individual health can be impaired both by the direct and by the secondary effects of smoking. The District, therefore, discourages the practices of smoking, but provides for opportunities for those who smoke as long as there is no impact upon the rights and health of non-smokers. It is not the intent that the program be a prohibition of smoking, rather it is intended to recognize the individual rights of the smoking/nonsmoking public.

- The posting of no smoking signs without the corresponding designation of smoking permitted areas is not in consonance with the intent of the procedure.
- Smoking is not permitted in District facilities which are open to the public and used as: Classrooms, Meetings Rooms, Theatres, Restrooms, Libraries, Cafeterias, Bookstores, Service Lines, Elevators, Faculty Offices.
- Smoking is not permitted in vehicles used for transportation of students.
- Site presidents/provost/facility mangers may designate facilities or areas in addition to those listed above as NO SMOKING facilities or areas.
- Each site determines areas for smoking and areas for nonsmoking in accordance with the SDCCD procedure and San Diego Municipal Code.
- Signs indicating SMOKING PERMITTED and NO SMOKING should be posted conspicuously in each area.
- Site presidents/provost/facility managers may designate areas within NO SMOKING areas where smoking is permitted, under the general guidance of San Diego Municipal Code.

For complete Smoking Policy, please reference SDCCD Procedure 0505.2.

Elder and Dependent Adult Abuse
An elder is defined as a resident of the State of California which is 65 years of age or older; or a dependent adult, defined as a resident of the State of California between the ages of 18 and 64 years, who has a physical or mental limitation that restrict his or her ability to carry out normal activities or to protect his/her rights.

Secondary educational institutions serving dependent adults are designated as mandated reporters with an individual, personal responsibility to comply with the reporting requirements.

Any mandated reporter, who, in his or her professional capacity, or within the scope of his or her employment, has observed or had knowledge of an incident that reasonably appears to be physical abuse, abandonment, isolation, financial abuse, or neglect, or is told by an elder or dependent adult that he or she has experienced behavior constituting physical abuse, abandonment, isolation, financial abuse, or neglect, or reasonably suspects abuse shall report the known or suspected instance of abuse immediately to the Site Compliance Officer.

The Site Compliance Officer will be responsible for notifying Health and Human Services and completing the Department's report form, "Suspected Dependent Adult/Elder Abuse, SOC 33341" within two working days.

Copyright Responsibility
Any duplication request of copyrighted materials for use in the college’s instructional programs must be accompanied with written permission from the copyright owner. Any duplication of copyrighted materials by student, staff, or faculty is to be for the sole purpose of private scholarly study. Since the
liability for infringement of statutory or common-law copyright occurs during misuse of duplicated materials, the duplicated copies cannot be sold nor distributed. A designated portion of the duplicated copy cannot be included in another’s work without the written permission of the copyright owner. All copyright responsibility is assumed by the individual requesting the duplication. San Diego Miramar College, its agents, representatives, and employees are held harmless against all claims, suits, damage costs, and expenses of charges of statutory or common-law infringement resulting from the College’s efforts to provide services, materials, and equipment to the requestor.

Student Rights, Responsibilities and Privacy of Student Records

Student Rights and Responsibilities
District policy 3100 enumerates the rights and responsibilities of all San Diego Community College District students.

1.0 Student Rights
All students shall have the right to a campus learning environment free from interference or disruption. The District shall ensure, to the best of their ability, to afford students the rights contained herein.

1.1 Students shall have the right to impartial objective evaluation of their academic performance. Students shall receive in writing, at the beginning of each course, information outlining the method of evaluating student progress including the method by which the final grade is determined.

1.2 Students shall have the right to exercise free expression including, but not limited to, the use of bulletin boards, the distribution of printed materials or petitions, and wearing of buttons, badges, or other insignia, so long as the expression is not obscene, libelous or slanderous according to current legal standards, and so long as the expression does not incite students so as to create a clear and present danger of (a) the commission of unlawful acts on community college premises, (b) the violation of lawful community college regulations, or (c) the substantial disruption of the orderly operation of the community college. The District reserves the right to regulate the time, place and manner of all student activities. (Education Code Section 76120).

1.3 Students shall have the right to be free from acts or threats of intimidation, harassment, or physical aggression.

1.4 Students shall have the right to be free from the imposition of disciplinary sanctions without proper regard for due process.

1.5 Students shall have the right to take reasoned exception to the data or views offered in any course of study without disrupting the instructional environment and to reserve judgment about matters of opinion. However, this does not preclude learning the content of any course for which they are enrolled.

1.6 Students shall have the right to participate in the formation of policy affecting them in accordance with established procedures for Shared Governance.

1.7 Students shall have the right to petition to organize interest groups and/or join student associations pursuant to Manual 3200.

1.8 Students shall have the right to invite guest speakers to make presentations on campus in accordance with campus guidelines and District policies and procedures.

1.9 Students shall have the right to develop student publications in accordance with standards established by current District policies and procedures.

1.10 Students with verified disabilities shall have the right to receive appropriate academic adjustments and auxiliary aids as specified in the Americans with Disabilities Act and Section 504 of the Federal Rehabilitation Act of 1973.

2.0 Student Responsibilities
Student behavior must remain in accordance with specific academic and behavior requirements as
specified in District policy and which may be outlined by the course syllabus.

2.1 Students shall be responsible for defining and making progress toward their educational goal.

2.2 Students are responsible for reading and adhering to the policies and procedures as outlined in catalogs, schedules, course syllabi and other official printed materials.

2.3 Students with verified disabilities who believe they need academic adjustments or auxiliary aids are encouraged to identify themselves to their instructors to discuss the details and time lines necessary to provide appropriate accommodation. Students are responsible for providing written verification of their disability to the instructor upon request.

2.4 Students may elect to consult directly with a Disabled Students Programs and Services (DSPS) Counselor Specialist regarding any accommodation. These students will be required to meet time lines and procedural requirements established by the DSPS Office.

3.0 Code of Conduct

Students are subject to adhering to the policies and procedures of the San Diego Community College District, as well as all federal, state, and local laws. Students are subject to charges of misconduct concerning, but not limited to, the following acts when committed on District-owned or controlled property or at District-sponsored activities.

3.1 The taking of and passing off as one's own the work or ideas of another: plagiarism and academic cheating.

3.2 Falsification, alteration or misuse of campus/District documents, and records.

3.3 Act or threat of damage to or theft of property belonging to or located on District-controlled property or facilities.

3.4 The physical or verbal disruption of instructional or student services activities, administrative procedures, public service functions, authorized curricular or co-curricular activities or prevention of authorized guests from carrying out the purpose for which they are on campus.

3.5 The physical or verbal intimidation or harassment of such severity or pervasiveness as to have the purpose or effect of unreasonably interfering with a student's academic performance, or a District employee's work performance, or of creating an intimidating, hostile, or offensive educational or work environment.

3.6 Disorderly, lewd, indecent or obscene conduct or expression or habitual profanity or vulgarity; any expression which is obscene, libelous or slanderous according to current legal standards or which so incites students as to create a clear and present danger of the commission of unlawful acts, or the substantial disruption of the orderly operation of the community college. (Ed. Code 76120)

3.7 Assault, or battery upon a student or district personnel on district premises or at any time or place while under the authority of District personnel.

3.8 Participation in hazing (California Education Code Sections 32050 through 32052).

3.9 Possession of weapons, explosives, unlicensed dangerous chemicals or objects which may be used as weapons or to threaten bodily harm, as specified in the California Penal Code or other applicable laws.

3.10 Participating in activities which are in violation of federal, state, or local laws or ordinances while on district premises or at district-sponsored or supervised activities.

3.11 Failure to comply with directions of staff members of the district who are acting within the scope of their employment. Continued and willful disobedience or open and persistent defiance of the authority of district personnel providing, such conduct is related to district activities or college/center attendance.

3.12 Smoking on District premises, or in vehicles provided by the district used for transporting students, except as permitted by applicable ordinances, laws, college guidelines and District procedure 0505.2.
3.13 Use, possession, distribution, or sale of alcoholic beverages on campus except as permitted by law.

3.14 Use, possession, distribution, manufacture or sale of narcotics or other hallucinogenic drugs or substances or inhaling or breathing the fumes of, or ingesting, any poison classified as such by the California Business and Professions Code Section 4160, Schedule “D,” except as provided by law, is prohibited when on district premises.

3.15 Violation of Policies & Procedures for Student Organizations as enumerated in Manual 3200.

Review of Student Records

Pursuant to the “Family Rights and Privacy Act of 1974” (Public Law 93-380) and the California Education Code, a student may request to inspect all official school records, files, and related data that are classified as Student Records. The records will be available for review at a mutually convenient time during regular working hours. Contact the Vice President, Student Services. If information in the file is inaccurate, misleading, or inappropriate, a student may request removal of the information or include a statement disputing the material that is challenged.

The law provides that no individual, agency or organization shall have access to a student’s records without the written consent of the student, with the exception of the following:

1) School officials within the district with “legitimate educational interest” such as the following:

   a. Instructional staff, when such information will assist in determining or improving the academic competence of students under their jurisdiction.

   b. Counseling staff, when such information will assist the student in achieving his/her personal, academic, or vocational goals.

   c. Classified staff who are involved in the creation, analysis, distribution, correction, compilation, or processing of student records.  

   d. Management or supervisory staff, when such information is directly related to the successful completion of management or supervisory duties, as prescribed by the Board of Trustees.

   e. The Board of Trustees, in appropriate disciplinary cases.

2) Specified federal and state educational officials such as officials in the State Chancellor’s Office.

3) State and local officials to the extent that such information is required to be reported pursuant to state law adopted prior to November 19, 1974.

4) Schools or colleges of intended enrollment provided that the student has been notified and given the opportunity to challenge the content.

5) Organizations conducting studies for the district.

6) Persons in connection with an emergency.

7) Agencies in connection with financial aid.

8) Court officials pursuant to a court order or subpoena provided the college makes a reasonable effort to notify the student in advance of such compliance.

Student records will normally include documents filed for admission to the college, grade reports, permanent records of academic work completed, transcripts received from other schools and colleges attended, test scores, counseling information, correspondence, and petitions. These documents will normally include but not be limited to a student’s name, address, telephone number, birth date, residence classification, sex, past and current enrollment, academic and attendance status, educational benefits, ethnic background, high school graduation, college major, and identification number.

Information which cannot be classified as a student record includes: (a) information provided by parents in connection with financial aid, (b) confidential letters of recommendation on file prior to January 1, 1975, (c) information maintained by a district official or employee which remains in his/her sole possession, (d) information about student maintained by a physician, psychiatrist, psychologist or other professional acting in his/her professional capacity for the college, (e) information about student maintained by the college law enforcement unit, (f) information about student maintained in the normal course of business pertaining to the student’s employment, if the student is employed by the college.
The information listed below is considered “Directory Information” and may be released as specified unless the student notifies the official responsible for student records within two weeks after the beginning of the semester or session that such personally identifiable information is not to be released.

1) Information related to officially recognized activities and sports which appears in programs and campus/district newspapers is released to the news media.

2) Information pertaining to graduation which appears on commencement programs and campus/district newspapers or is released to the news media.

3) Information pertaining to the receipt of awards which appears in campus/district newspapers or is released to the news media.

When releasing the above categories of information, the following items of information may be included: student's name, date and place of birth, address, telephone number, major field of study, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and most recent public or private school attended by the student. No other categories of information may be released nor may the information be released to other recipients without the written authorization of the student concerned.

The college will maintain a log which lists all persons, agencies, or organizations requesting or receiving information from a student's record at the college Admissions/Records Office. Such log will also indicate why such information is requested.

Information about students may be requested by officials in charge of recruitment for the National Guard and each active reserve component of the armed forces. Such information shall be released subject to the following conditions:

- The requesting agency shall reimburse the District for the cost of developing and furnishing the information.
- The agreement shall acknowledge the confidentiality of the information and prohibit its release to a third party.
- After public notice, the student named has informed the district in writing that the information may be released.

In the event you feel that Miramar College has not complied with the provisions of the privacy act as specified herein or in the statutes, you may file a complaint with the United States Department of Education.
Academic Requirements
The Associate Degree

60 Units Required for the Associate Degree

On the recommendation of the faculty, the college awards the Associate in Arts degree, the Associate in Science degree, or the Certificate of Achievement to students who complete the requirements specified.

Associate Degree Requirements

The Associate in Science degree is awarded in engineering, physical and biological sciences, and occupational curricula. The Associate in Arts degree is awarded in the social sciences, humanities, the arts, and similar disciplines.

An associate degree is awarded by the San Diego Community College District colleges in recognition of completion of a minimum of 60 units which include completion of:

- **Major Requirements**
- **District Requirements**
- **General Education Requirements**

Students should plan programs with long range goals in mind. Students who plan to transfer to a four-year institution should review the Transfer Requirements section of this catalog.

A minimum of 12 semester units must be completed in residence as an officially enrolled student in the San Diego Community College District.

Grade Point Average (GPA) and Minimum Grade Requirements

Students must obtain a grade point average of at least 2.0 (a “C” average) in all courses completed upon which the degree is based.

Students enrolled in occupational and health occupation programs must earn a grade of “C” or better in courses required for the major.

Major Requirements

Eighteen semester units or more are required for a major. Refer to the Degree Curricula and Certificate Programs section of this catalog for specific requirements for each major. Only one course in a student’s major discipline may be used to meet the San Diego Community College District general education requirements.

District Requirements

1. **Competence in Reading and Written Expression**

   Complete one course with a grade of “C” or better from General Education Requirements Area A.1 Language and Rationality, English Composition.

   *Note: The course selected to meet this requirement may also be used to meet the general education requirement for English Composition.*

2. **Competence in Mathematics**

   Competence is demonstrated by:

   a. Obtaining a skill level of M40 on the mathematics assessment test

   b. Completing one of the following courses with a grade of “C” or better:

   - BION 200 Biological Statistics (City, Mesa)
   - BUSE 101 Business Mathematics
   - MATH 91 Algebra for Math Placement (City)
   - MATH 95 Elementary Algebra and Geometry
   - MATH 181 Mecomtronics College Algebra and Trigonometry I (City)
   - MATH 182 Mecomtronics College Algebra and Trigonometry II (City)
   - MATH 183 Mecomtronics Calculus I (City)
c. Completing, with a grade of “C” or better, any other Mathematics course for which one of the above listed courses is a prerequisite

Note: The course selected to meet these requirements may also be used to meet the general education requirement for Communications and Analytical Thinking.

3. American Institutions/California Government

Students must complete three to six units in American Institutions/California Government. This requirement is met by completing one of the following six-unit sequences, six-unit combinations, or three-unit course:

Three-Unit Course:

POLI 102 The American Political System

Six-Unit Sequences

- BLAS 140A History of the U.S., Black Perspective
- BLAS 140B History of the U.S., Black Perspective
- CHIC 141A U.S. History from a Chicano Perspective (City, Mesa) and
- CHIC 141B U.S. History from a Chicano Perspective (City, Mesa)
- HIST 109 History of the United States I and
- HIST 110 History of the United States II
- HIST 115A History of the Americas I (City, Mesa) and
- HIST 115B History of the Americas II (City, Mesa)
- HIST 141 Women in United States History I (Mesa) and
- HIST 142 Women in United States History II (Mesa)
- HIST 150 Native Americans in U.S. History (Mesa, Miramar) and
- HIST 151 Native Americans in U.S. History (Mesa, Miramar)

Six-Unit Combination

- BLAS 140A History of the U.S., Black Perspective and
- HIST 110 History of the United States II
- or
- BLAS 140B History of the U.S., Black Perspective and
- HIST 109 History of the United States I
- or
- HIST 109 History of the United States I and
- HIST 123 U. S. History from the Asian Pacific American Perspective (Mesa)

Note: The course or courses selected to meet this requirement may also be used to meet the general education requirement for Social and Behavioral Sciences. If a Black Studies or Chicano Studies course is selected, it may also be used to fulfill the multicultural studies requirement. Students who select POLI 102 to satisfy the American Institutions requirement may not use this course for general education credit. If a six-unit sequence or combo is selected to fulfill the American Institutions requirement, only three units may be used for general education credit.

Students who have completed the American Institutions requirement except for the California government portion must complete one of the following courses:

- BLAS 140B History of U.S., Black Perspective
- HIST 110 History of the United States II
- HIST 123 U. S. History from the Asian Pacific American Perspective (Mesa)
- HIST 175 California History (Mesa)
- POLI 102 The American Political System

4. Health Education

This requirement is met by completing Health Education 101: Health and Lifestyle, three units.
Note: This requirement is waived for students who earn degrees in Nursing Education. U.S. Veterans and active duty U.S. military personnel may be granted two units of college credit to fulfill the Health Education Requirement if service has been continuous for at least six months. Copies of form DD-214 or DD-295 or SMART covering all periods of military service must be on file in the Veterans Office.

5. Physical Education

Students must complete two activity courses in Physical Education. Physical Education courses numbered below 240 are acceptable, except for Physical Education 150. Students with physical conditions which prevent participation in regular physical education activity classes must file a physician’s statement with the Evaluations Office, room C-301. Adapted Physical Education classes are available. A Physician’s medical release form is required.

Note: U.S. Veterans and active duty U.S. military personnel may be granted two units of college credit to fulfill the Physical Education requirement if service has been continuous for at least six months. Copies of form DD-214 or DD-295 or SMART covering all periods of military service must be on file in the Veterans Office.

6. Multicultural Studies

Students may satisfy the District multicultural studies graduation requirement by satisfactorily completing a course related to the culture of one or more of the ethnic groups which are represented in American society. The course shall include a focus on the role of men and women in the origin, development, and current status of these cultures.

Note: Each student seeking the Associate Degree must complete a three-unit multicultural studies course selected from the general education courses marked with a caret (^) indicating that they meet the Multicultural Requirement. The three units may be applied to the 18 units required in general education.

This requirement is met by completing one of the following courses (these courses are also on the District General Education list):

- ANTH 210 Introduction to California Indians (City, Mesa)
- ANTH 113 African, Oceanic, Native American Art (Mesa)
- ANTH 115 African Art (City, Mesa)
- ANTH 120 North American Indian Art (Mesa)
- ANTH 125 Art History: Survey in Far Eastern Art (Miramar)
- ARTF 130 Survey of Pre-Columbian Art (Mesa)
- BLAS 104 Black Psychology (City, Mesa)
- BLAS 110 Afro-American Art (City, Mesa)
- BLAS 115 Sociology from a Black Perspective (City)
- BLAS 116 Contemporary Social Problems from a Black Perspective (City, Mesa)
- BLAS 120 Black Music (City, Mesa)
- BLAS 125 Dynamics of the Black Community (City, Mesa)
- BLAS 130 The Black Family (City, Mesa)
- BLAS 135 Introduction to Black Politics (City)
- BLAS 140A History of the U.S., Black Perspective
- BLAS 140B History of the U.S., Black Perspective
- BLAS 145A Introduction to African History (City, Mesa)
- BLAS 145B Introduction to African History (City)
- BLAS 150 Black Women in Literature and the Media (City, Mesa)
- BLAS 155 Afro-American Literature (City, Mesa)
- CHIC 110A Introduction to Chicano Studies (City, Mesa)
- CHIC 110B Introduction to Chicano Studies (City, Mesa)
- CHIC 135 Chicano Literature (City, Mesa)
- CHIC 141A U.S. History from a Chicano Perspective (City, Mesa)
- CHIC 141B U.S. History from a Chicano Perspective (City, Mesa)
- CHIC 190 Chicano Images in Film (Mesa)
- CHIC 210 Chicano Culture (City, Mesa)
- CHIL 141 The Child, Family and Community
- ENGL 202 Introduction to Linguistics (City, Mesa)
- FILI 100 Filipino American Experience (Mesa, Miramar)
- GEOG 102 Cultural Geography
- HIST 113 Race in the United States (Mesa)
- HIST 115A History of the Americas I (City, Mesa)
- HIST 115B History of the Americas II (City, Mesa)
- HIST 120 Introduction to Asian Civilizations
- HIST 121 Asian Civilizations in Modern Times
- HIST 123 U. S. History from the Asian Pacific American Perspective (Mesa)
- HIST 130 The Middle East Today (Mesa)
- HIST 150 Native Americans in U.S. History (Mesa, Miramar)
General Education Outcomes Defined

General Education courses should contribute to the broad education of career technical and transfer students in the areas of critical thinking, writing, and oral communication skills, understanding of and the ability to use quantitative analysis, and awareness of the arts and humanities; and of the physical, social and behavioral sciences as they affect one’s interaction with the diverse local and global communities. General Education Requirements Title 5: Section 55806

a. Natural Sciences. Courses in the natural sciences are those that examine the physical universe, its life forms, and its natural phenomena. To satisfy the General Education Requirement in natural sciences, a course shall be designed to help the student develop an appreciation and understanding of the scientific method, and encourage an understanding of the relationships between science and other human activities. This category would include introductory or integrative courses in astronomy, biology, chemistry, general physical science, geology, meteorology, oceanography, physical geography, physical anthropology, physics and other scientific disciplines.

b. Social and Behavioral Sciences. Courses in the social and behavioral sciences are those which focus on people as members of society. To satisfy the general education requirement in social and behavioral sciences, a course shall be designed to develop an awareness of the method of inquiry used by the social and behavioral sciences. It shall be designed to stimulate critical thinking about the ways people act and have acted in response to their societies and should promote appreciation of how societies and social subgroups operate. Category would include introductory or integrative survey courses in cultural anthropology, cultural geography, economics, history, political science, psychology, sociology and related disciplines.

c. Humanities. Courses in the humanities are those which study the cultural activities and artistic expressions of human beings. To satisfy the general education requirement in the humanities, a course shall be designed to help the student develop an awareness of the ways in which people throughout the ages and in different cultures have responded to themselves help the student develop aesthetic understanding and an ability to make value judgments. Such courses could include introductory or integrative courses in the arts, foreign languages, literature, philosophy, and religion.

d. Language and Rationality. Courses in language and rationality are those which develop for the student the principles and applications of language toward logical thought, clear and precise expression and critical evaluation of communication in whatever symbol system the student uses.

1) English Composition. Courses fulfilling the written composition requirement shall be designed to include both expository and argumentative writing.

2) Communication and Analytical Thinking. Courses fulfilling the communication and analytical thinking requirement include oral communication, mathematics, logic, statistics, computer languages and programming, and related disciplines.

Ethnic Studies will be offered in at least one of the required areas.

General Education Requirements

Courses which fulfill District multicultural studies graduation requirement.

* Courses which might satisfy more than one area and/or general education requirement, but which may not be counted more than once for this purpose.

Only one course in a student’s major discipline may be used to meet the San Diego Community College District General Education requirements.
The State of California requires the completion of a minimum of 18 units of general education. One course must be selected from each of the following areas: English Composition; Communication/Analytical Thinking; the Sciences (Life or Physical, not both); Humanities; Social Sciences; and a sixth course chosen from any area.

A. Language and Rationality:
A minimum of three semester units, or four quarter units, must be completed. Choose one course from the following:

1. English Composition
   - BUSE 119 Business Communications
   - ENGL 101 Reading and Composition
   - ENGL 105 Composition and Literature
   - ENGL 205 Critical Thinking and Intermediate Composition

   A minimum of three semester units, or four quarter units, must be completed. Choose one course from the following.

   Note: Courses designated with a caret (^) may also be used to fulfill the District multicultural studies requirement. Courses designated with an asterisk (*) fulfill more than one general education requirement, but may not be counted more than once for this purpose.

2. Communication and Analytical Thinking
   - BIOL 200 Biological Statistics (City, Mesa)
   - BLAS 106 Black Oral Expression and Interpretation (Mesa)
   - BUSE 101 Business Mathematics
   - CISC 150 Introduction to Computer and Information Sciences (City, Mesa)
   - CISC 181 Principles of Information Systems
   - MATH 91 Algebra for Math Placement (City, Miramar)
   - MATH 95 Elementary Algebra and Geometry
   - MATH 96 Intermediate Algebra with Geometry
   - MATH 104 Trigonometry
   - MATH 107 Introduction to Scientific Programming
   - MATH 107L Intro. to Scientific Programming Lab
   - MATH 116 College and Matrix Algebra
   - MATH 118 A Survey of Modern Mathematics (City, Mesa)
   - MATH 119 Elementary Statistics
   - MATH 121 Basic Techniques of Applied Calculus I
   - MATH 122 Basic Techniques of Calculus II
   - MATH 141 Precalculus
   - MATH 150 Calculus with Analytic Geometry I
   - MATH 151 Calculus with Analytic Geometry II
   - MATH 181 Mecomtronics College Algebra and Trigonometry I (City)
   - MATH 182 Mecomtronics College Algebra and Trigonometry II (City)
   - MATH 183 Mecomtronics Calculus I (City)
   - MATH 184 Mecomtronics Calculus II (City)
   - MATH 210A Concepts of Elementary School Mathematics I
   - MATH 210B Concepts of Elementary School Mathematics II
   - MATH 237 Machine and Assembly Language (City, Mesa)
   - MATH 245 Discrete Mathematics
   - MATH 252 Calculus with Analytic Geometry III
   - MATH 254 Introduction to Linear Algebra
   - PHIL 100 Logic and Critical Thinking
   - PHIL 101 Symbolic Logic
   - PHIL 205 Critical Thinking and Writing in Philosophy
   - PSYC 258 Behavioral Science Statistics (City, Mesa)
   - SPEE 99 Voice and Diction for Non-Native Speakers of English
   - SPEE 101 Voice and Articulation
   - SPEE 103 Oral Communication
   - SPEE 135 Interpersonal Communication
   - SPEE 160 Argumentation
   - SPEE 170 Small Group Communication
   - SPEE 180 Intercultural Communication

B. Natural Sciences:
A minimum of three semester units, or four quarter units, must be completed. Choose one course from the following:

1. Life Sciences
   - ANTH 102 Introduction to Physical Anthropology
   - ANTH 104 Laboratory in Physical Anthropology (Mesa)
   - BIOL 100 Natural History - Environmental Biology (Lecture/Laboratory) (Mesa, Miramar)
   - BIOL 101 Issues in Environmental Biology (Lecture/ Laboratory) (City)
   - BIOL 105 Principles of Biology (Miramar)
2. Physical Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>BIOL 106</td>
<td>Principles of Biology (Laboratory) (Miramar)</td>
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<tr>
<td>BIOL 107</td>
<td>General Biology (Lecture/Laboratory) (City, Mesa)</td>
</tr>
<tr>
<td>BIOL 110</td>
<td>Introduction to Oceanography (City, Mesa)</td>
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<tr>
<td>BIOL 115</td>
<td>Marine Biology (Lecture/Laboratory)</td>
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<tr>
<td>BIOL 120</td>
<td>The Environment of Man (Mesa)</td>
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<td>BIOL 130</td>
<td>Human Heredity</td>
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<tr>
<td>BIOL 131</td>
<td>Introduction to Biotechnology (Miramar)</td>
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<tr>
<td>BIOL 160</td>
<td>Elements of Human Anatomy &amp; Physiology (Lecture/Lab) (Mesa, Miramar)</td>
</tr>
<tr>
<td>BIOL 180</td>
<td>Plants and People (City)</td>
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<tr>
<td>BIOL 205</td>
<td>General Microbiology</td>
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<td>BIOL 210A</td>
<td>Introduction to the Biological Sciences I (Lecture/Lab)</td>
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<td>BIOL 210B</td>
<td>Introduction to the Biological Sciences II (Lecture/Lab)</td>
</tr>
<tr>
<td>BIOL 215</td>
<td>Introduction to Zoology</td>
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<td>BIOL 230</td>
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<td>BIOL 235</td>
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<tr>
<td>BIOL 250</td>
<td>Introduction to Botany (Mesa, Miramar)</td>
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<td>BIOL 285</td>
<td>Tropical Biology Field Experience (Miramar)</td>
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<tr>
<td>CHEM 105</td>
<td>Drugs and the Human Body (Mesa)</td>
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<td>MEDA 105</td>
<td>Human Anatomy and Assisting Physiology (Mesa)</td>
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<td>NLTE 105</td>
<td>Principles of Plant Growth (Mesa)</td>
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<td>NUTR 150</td>
<td>Nutrition (Mesa, Miramar)</td>
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<td>PSYC 260</td>
<td>Introduction to Physiological Psychology</td>
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<td>CHEM 152L</td>
<td>Introduction to General Chemistry Laboratory (City, Mesa)</td>
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<td>General Chemistry I (Lecture)</td>
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<td>General Chemistry I (Laboratory)</td>
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<td>CHEM 201</td>
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<td>Physical Geography (Laboratory)</td>
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<td>GEOG 103</td>
<td>Introduction to Meteorology (Mesa)</td>
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<td>Physical Oceanography (Miramar)</td>
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<td>PHYS 100</td>
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<td>General Physics I (City)</td>
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<td>General Physics II (City)</td>
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<td>PHYS 121A</td>
<td>General Physics Lab-A (City)</td>
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<td>PHYS 121B</td>
<td>General Physics Lab-B (City)</td>
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<td>PHYS 124A</td>
<td>General Physics</td>
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<td>PHYS 124B</td>
<td>General Physics</td>
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<tr>
<td>PHYS 195A</td>
<td>Mechanics (City, Mesa)</td>
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<tr>
<td>PHYS 195B</td>
<td>Electricity &amp; Magnetism (City, Mesa)</td>
</tr>
<tr>
<td>PHYS 195C</td>
<td>Waves, Light and Modern Physics (City, Mesa)</td>
</tr>
</tbody>
</table>

Note: Courses designated with a caret (^) may also be used to fulfill the District multicultural studies requirement. Courses designated with an asterisk (*) fulfill more than one general education requirement, but may not be counted more than once for this purpose.

C. Humanities:
A minimum of three semester units, or four quarter units, must be completed. Choose one course from the following:

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>AMSL 100</td>
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<td>AMSL 101</td>
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<td>First Course in Arabic (City)</td>
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<td>ARTF 100</td>
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<td>ARTF 109</td>
<td>Nineteenth and Twentieth Century Art</td>
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<td>ARTF 110</td>
<td>Art History: Prehistoric to Gothic</td>
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<td>ARTF 111</td>
<td>Art: Renaissance to Modern</td>
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<td>^ ARTF 113</td>
<td>African, Oceanic, Native American Art (Mesa)</td>
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<td>^ ARTF 115</td>
<td>African Art (City, Mesa)</td>
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<tr>
<td>^ ARTF 120</td>
<td>North American Indian Art (Mesa)</td>
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<td>^ ARTF 125</td>
<td>Art History: Survey in Far Eastern Art (Miramar)</td>
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<td>^ ARTF 130</td>
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<td>Course</td>
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<tr>
<td>BLAS 110</td>
<td>Afro-American Art (City, Mesa)</td>
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<td>African Art History (Mesa)</td>
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<td>BLAS 155</td>
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<td>CHIC 130</td>
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<td>CHIC 135</td>
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<td>CHIC 138</td>
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<td>CHIC 204</td>
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<td>CHIC 210</td>
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<td>CHIN 101</td>
<td>First Course in Mandarin Chinese (Mesa)</td>
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<td>Cinema as Art and Communication I (Mesa)</td>
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<td>DRAM 151</td>
<td>Cinema as Art and Communication II (Mesa)</td>
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<td>ENGL 207</td>
<td>The Art of the Sentence (Mesa)</td>
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<td>ENGL 208</td>
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<td>ENGL 209</td>
<td>Literary Approaches to Film</td>
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<td>ENGL 210</td>
<td>American Literature I</td>
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<td>ENGL 211</td>
<td>American Literature II</td>
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<td>ENGL 215</td>
<td>English Literature I: 800-1799</td>
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<td>ENGL 216</td>
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<td>ENGL 220</td>
<td>Masterpieces of World Literature I: 1500 BCE - 1600 CE</td>
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<td>ENGL 221</td>
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<td>World History II (City, Mesa)</td>
</tr>
<tr>
<td>HIST 105</td>
<td>Introduction to Western Civilization I</td>
</tr>
<tr>
<td>HIST 106</td>
<td>Introduction to Western Civilization II</td>
</tr>
<tr>
<td>HIST 120</td>
<td>Introduction to Asian Civilizations</td>
</tr>
<tr>
<td>HIST 121</td>
<td>Asian Civilizations in Modern Times</td>
</tr>
<tr>
<td>HIST 123</td>
<td>U. S. History from the Asian Pacific American Perspective</td>
</tr>
<tr>
<td>HIST 125</td>
<td>History/England and the Commonwealth I (Mesa)</td>
</tr>
<tr>
<td>HIST 126</td>
<td>History/England and the Commonwealth II (Mesa)</td>
</tr>
<tr>
<td>HUMA 101</td>
<td>Introduction of Humanities I</td>
</tr>
<tr>
<td>HUMA 102</td>
<td>Introduction to Humanities II</td>
</tr>
<tr>
<td>HUMA 106</td>
<td>World Religions (City, Mesa)</td>
</tr>
<tr>
<td>HUMA 201</td>
<td>Mythology</td>
</tr>
<tr>
<td>HUMA 202</td>
<td>Mythology: Hero's Journey (City, Mesa)</td>
</tr>
<tr>
<td>ITAL 101</td>
<td>First Course in Italian (City, Mesa)</td>
</tr>
<tr>
<td>ITAL 102</td>
<td>Second Course in Italian (City, Mesa)</td>
</tr>
<tr>
<td>ITAL 201</td>
<td>Third Course in Italian (City, Mesa)</td>
</tr>
<tr>
<td>JAPN 101</td>
<td>First Course in Japanese (Mesa, Miramar)</td>
</tr>
<tr>
<td>JAPN 201</td>
<td>Third Course in Japanese (Mesa)</td>
</tr>
<tr>
<td>JAPN 202</td>
<td>Fourth Course in Japanese (Mesa)</td>
</tr>
<tr>
<td>LATI 101</td>
<td>First Course in Latin (Mesa)</td>
</tr>
<tr>
<td>LATI 102</td>
<td>Second Course in Latin (Mesa)</td>
</tr>
<tr>
<td>LATI 201</td>
<td>Third Course in Latin (Mesa)</td>
</tr>
<tr>
<td>MUSI 100</td>
<td>Introduction to Music</td>
</tr>
<tr>
<td>MUSI 101</td>
<td>Music History I (Mesa, Miramar)</td>
</tr>
<tr>
<td>MUSI 102</td>
<td>Music History II (Mesa, Miramar)</td>
</tr>
<tr>
<td>MUSI 105</td>
<td>Music of Our Time (Mesa)</td>
</tr>
<tr>
<td>MUSI 109</td>
<td>World Music</td>
</tr>
<tr>
<td>MUSI 111</td>
<td>Jazz-History and Development</td>
</tr>
<tr>
<td>MUSI 125</td>
<td>Music, the Arts and Humanity (Mesa, Miramar)</td>
</tr>
<tr>
<td>PHIL 102A</td>
<td>Introduction to Philosophy: Reality and Knowledge</td>
</tr>
<tr>
<td>PHIL 102B</td>
<td>Introduction to Philosophy: Values</td>
</tr>
<tr>
<td>PHIL 103</td>
<td>Historical Introduction to Philosophy (Mesa)</td>
</tr>
<tr>
<td>PHIL 104A</td>
<td>History of Western Philosophy (City, Mesa)</td>
</tr>
<tr>
<td>PHIL 104B</td>
<td>History of Western Philosophy (City, Mesa)</td>
</tr>
<tr>
<td>PHIL 105</td>
<td>Contemporary Philosophy (Mesa)</td>
</tr>
<tr>
<td>PHIL 106</td>
<td>Asian Philosophy (City, Mesa)</td>
</tr>
<tr>
<td>PHIL 107</td>
<td>Reflections on Human Nature</td>
</tr>
<tr>
<td>PHIL 108</td>
<td>Perspectives on Human Nature and Society (City, Mesa)</td>
</tr>
<tr>
<td>PHIL 110</td>
<td>Philosophy of Religion (Mesa)</td>
</tr>
<tr>
<td>PHIL 111</td>
<td>Philosophy in Literature (City, Mesa)</td>
</tr>
<tr>
<td>PHIL 112</td>
<td>Philosophy of Science (Mesa)</td>
</tr>
<tr>
<td>PHIL 125</td>
<td>Philosophy of Women in World Cultures (City, Mesa)</td>
</tr>
</tbody>
</table>
65 Academic Requirements

D. Social and Behavioral Sciences:
A minimum of three semester units, or four quarter units, must be completed. Choose one course from the following:

Note: Courses designated with a caret (^) may also be used to fulfill the District multicultural studies requirement. Courses designated with an asterisk (*) satisfy more than one general education requirement, but may not be counted more than once for this purpose.

ADJU 101 Introduction to Administration of Justice (Miramar)
^
ADJU 106 Diversity and Community Relations (Miramar)
^
AMSL 104 Introduction to Deaf Culture (Mesa)
^
ANTH 103 Introduction to Cultural Anthropology
ANTH 107 Introduction to Archaeology
ANTH 200 Introduction to North American Indians (Mesa)
^
ANTH 210 Introduction to California Indians (City, Mesa)
^
ANTH 215 Cultures of Latin America (City, Mesa)
^
BLAS 104 Black Psychology (City, Mesa)
^
BLAS 115 Sociology from a Black Perspective (City)
^
BLAS 116 Contemporary Social Problems from a Black Perspective (City, Mesa)
^
BLAS 125 Dynamics of the Black Community (Mesa)
^
BLAS 130 The Black Family (City, Mesa)
^
BLAS 135 Introduction to Black Politics (City)
^
BLAS 140A History of the U.S., Black Perspectives
^
BLAS 140B History of the U.S., Black Perspectives
^
BLAS 145A Introduction to African History (City, Mesa)
^
BLAS 145B Introduction to African History (City)
^
BUSE 100 Introduction to Business
BUSE 140 Business Law and the Legal Environment
^
CHIC 110A Intro. to Chicano Studies (City, Mesa)
^
CHIC 110B Intro. to Chicano Studies (City, Mesa)
^
CHIC 141A U.S. History from a Chicano Perspective (City, Mesa)
^
CHIC 141B U.S. History from a Chicano Perspective (City, Mesa)
^
CHIC 150 History of Mexico (City, Mesa)
CHIC 170 La Chicana (Mesa)
CHIC 201 Pre-Columbian Cultures of MesoAmerica (City, Mesa)
^
CHIL 101 Human Growth and Development
^
CHIL 141 The Child, Family and Community Development
ECON 120 Principles of Economics I
ECON 121 Principles of Economics II
^
ENGL 202 Introduction to Linguistics (Mesa, City)
^
FILI 100 Filipino American Experience (Mesa, Miramar)
^
GEOG 102 Cultural Geography
GEOG 104 World Regional Geography (City, Mesa)
GEOG 154 Intro. to Urban Geography (Mesa)
^
HIST 109 History of the United States I
HIST 110 History of the United States II
^
HIST 113 Race in the United States (Mesa)
^
HIST 115A History of the Americas I (City, Mesa)
^
HIST 115B History of the Americas II (City, Mesa)
** HIST 123 U. S. History from the Asian Pacific American Perspective (Mesa)
^
HIST 130 The Middle East Today (Mesa)
HIST 141 Women in United States History I (Mesa)
HIST 142 Women in United States History II (Mesa)
^
HIST 150 Native Americans in U.S. History (Mesa, Miramar)
^
HIST 151 Native Americans in U.S. History (Mesa, Miramar)
HIST 154 Ancient Egypt (Mesa)
HIST 175 California History (Mesa)
^
PHIL 108 Perspectives on Human Nature and Society (City, Mesa)
^
PHIL 109 Issues in Social Philosophy (Mesa)
POLI 101 Introduction to Political Science
POLI 102 American Political System
^
POLI 103 Comparative Politics
Certificate of Achievement

Programs in which a Certificate of Achievement may be awarded are described in the Degree Curricula and Certificate Programs section of this catalog. Certificate programs are designed for students with specific personal or occupational goals. To qualify for the Certificate of Achievement, students must satisfy the following requirements:

1) meet all standards for admission to the desired certificate program;
2) obtain a grade point average of at least 2.0 ("C") in all courses listed in the certificate program;
3) earn a grade of "C" or better in each course required for the certificate in occupational health occupation programs;
4) complete a minimum of three courses in residence.

Certificate of Completion

Programs in which a Certificate of Completion may be awarded are described in the Degree Curricula and Certificate Programs section of this catalog. A Certificate of Completion recognizes the attainment of knowledge and/or skill through the successful completion of two or more courses as specified by a department. Certificates of Completion are designed to prepare students for employment, job enhancement and/or job advancement. To qualify for the Certificate of Completion, students must satisfy the following requirements:

1) Achieve a grade of "C" or better in each of the required courses.
2) Complete all required course work in the San Diego Community College District.
3) Course substitutions or course equivalencies from other colleges may not be used to satisfy Certificate of Completion requirements.

For additional information, contact the campus Evaluations Office or subject-area department.

Graduation

Petition for Graduation

Graduation is not automatic upon completion of requirements. A student who expects to receive the Associate Degree or the Certificate of Achievement must file a Petition for Graduation in the Evaluations Office. See class schedule for important deadline dates for filing a Petition for Graduation.

Official college transcripts from all colleges attended must be on file before submitting the petition.

A petition for an associate degree evaluation should be submitted one year before the student plans to graduate.

An evaluation is a summary of college work completed and of requirements to be completed for the associate degree or the certificate of achievement. Only evaluations completed by one of the College Evaluators are official.

Students who have petitioned for graduation should notify the evaluator immediately of any name or address change.

Students who are working toward a certificate of achievement should file the Petition for Graduation prior to the beginning of the semester in which they plan to complete the requirements of their certificate program.

Catalog Rights

Students who maintain continuous enrollment may choose to graduate under the (City College, Mesa College, and Miramar College) catalog in effect at the time they began their studies in a California Community College, California State University, or University of California campus, or under the catalog in effect at the time of graduation.

Note: Students who select POLI 102 to satisfy the American Institutions requirement may not use this course for General Education Credit.
Certification of a student’s completion of CSU general education requirements is not a graduation requirement. Therefore, students do not have catalog rights to a certification pattern used by a certifying institution or a CSU campus.

Continuous Enrollment
Continuous enrollment is defined as attendance in one semester or two quarters (excluding summer) within a calendar year in either the CSU, UC, or California Community College System.

Awarding of Degrees or Certificates
The graduation ceremony is held once a year at the end of the spring semester. Students who complete requirements for the Associate Degree or the Certificate of Achievement in the fall or spring semesters and petition by March will be granted the degree in Spring.

Students who complete the requirements during the summer session or petition after the March deadline will be granted the degree in Spring. Summer candidates for graduation may participate in the graduation ceremony in Spring if the Petition for Graduation is filed by the March deadline.

Graduation with Distinction
Graduation with honors is granted to students who have achieved the following overall Grade Point Average (GPA) in lower division work attempted upon completion of the academic year in which the student graduates. Graduation with Honors is granted to students who achieve an overall 3.5 GPA; graduation with high honors is granted to students who achieve an overall 3.75 GPA; highest honor is granted to students who achieve an overall 4.0 GPA.

Graduation with Honors distinction will be based upon all coursework that the degree is based on.

Students will be notified that this distinction is pending at the time of graduation contingent upon completion of all requirements for the degree.

Additional College Degree
A student having received an associate or baccalaureate degree may qualify for an additional Associate in Arts or Associate in Science degree in a new major or concentration.

An additional degree:
1) Permits upgrading or preparation for upgrading current employment.
2) Prepares for employment in an area different from that provided by previous training.
3) Provides general knowledge leading to fulfillment of personal goals.

The following requirements are applicable:
1) The degree to be earned must represent a change in major or concentration from the degree or degrees previously earned.
2) A student must earn a minimum of 18 required semester units in the new major or concentration beyond the minimum 60 units required for the Associate Degree, bringing the total units required for the second degree to a minimum of 78 units, a minimum of 96 units for the third degree, and so on. Twelve (12) semester units of the new major or concentration must be completed in residence.
3) A student must fulfill current catalog associate degree requirements.
4) In order to receive an additional college degree, the student must file a Petition for Graduation in the Evaluations Office. The college evaluator will review all previous college work to determine the student’s eligibility for a second degree.

Transfer Programs
(See “Transfer Guide” on page 71.)

Recognition of High School Courses for College Credit
Students who successfully complete the articulated course/program and demonstrate acquisition of the knowledge, skills, and abilities via an examination administered at end of the course/program may earn college credit equivalent to the course(s) identified in the Articulation Table below. Successful completion is defined as the completion of the course(s)/program and a grade of “B” of better on the final examination administered upon completion. In order to receive the credit for an articulated college course/program, the student must complete a Tech Prep Articulation packet, which includes the college application and the Tech Prep Articulation Certification form, and submit it to the high school instructor. Forms will be processed annually each July. Seniors earning college credit may request a copy of their SDCCD transcript after July 31st. Other high school students earning Tech Prep
articulated credit may request a copy of their SDCCD transcript the following Fall semester. If you have any
questions, please contact the Associate Dean of Tech Prep at (619) 388-6572

## TECH PREP ARTICULATED COURSES

<table>
<thead>
<tr>
<th>HIGH SCHOOL COURSE(S)/PROGRAM</th>
<th>HIGH SCHOOL SITE(S)</th>
<th>MIRAMAR COURSE(S)</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computerized Accounting (1 year)</td>
<td>Crawford, Kearny and Mira Mesa</td>
<td>ACCT 150, CBTE 140</td>
<td>up to 5</td>
</tr>
<tr>
<td>Automotive Engine Performance Program, <strong>AND</strong> Automotive Engine Rebuilding Program (2 years)</td>
<td>Kearny</td>
<td>AUTO 52, AUTO 112</td>
<td>up to 6</td>
</tr>
<tr>
<td>Transportation Technology Program (2 years)</td>
<td>Clairemont, Crawford, Kearny, La Jolla, Madison, Mira Mesa, Morse, Point Loma, San Diego and Serra</td>
<td>AUTO 52, AUTO 112</td>
<td>up to 6</td>
</tr>
<tr>
<td>Air Force ROTC, Aerospace 1-3 (2 years)</td>
<td>Scripps Ranch</td>
<td>AVIA 105</td>
<td>3</td>
</tr>
<tr>
<td>Air Force ROTC, Aerospace 4 (1 year) or Aeronautics Program (1 year)</td>
<td>Scripps Ranch, Morse</td>
<td>AVIA 140</td>
<td>3</td>
</tr>
<tr>
<td>Electronics Technician Program (2 years)</td>
<td>Kearny, Morse</td>
<td>AVIM 120, AVIM 121A</td>
<td>up to 4.5</td>
</tr>
<tr>
<td>Business &amp; Computer Applications Program (2 years)</td>
<td>Clairemont, Crawford, Gompers Secondary, Hoover, Kearny, Madison, Mira Mesa, Mission Bay, Morse, Patrick Henry, San Diego, Point Loma, Scripps Ranch, Serra and University City</td>
<td>CBTE 120, CBTE 122, CBTE 126, CBTE 140, CBTE 151, CBTE 180, CBTE 210, CBTE 211, CISC 128</td>
<td>up to 20</td>
</tr>
<tr>
<td>Computer Applications in Business (1 year)</td>
<td>Clairemont, Garfield, Lincoln, Madison, Mira Mesa, Mission Bay, Patrick Henry, Point Loma, San Diego, San Diego S.C.P.A., Scripps Ranch, Serra and University City</td>
<td>CBTE 120</td>
<td>3</td>
</tr>
<tr>
<td>Biotechnology 1 &amp; 2 (1 year)</td>
<td>Chula Vista and Sweetwater Union High School District</td>
<td>BIOL 131</td>
<td>4</td>
</tr>
<tr>
<td>Child Development Careers Program (2 years)</td>
<td>Clairemont, Hoover, Mira Mesa, Morse, Patrick Henry, San Diego, Scripps Ranch and University City</td>
<td>CHIL 160, CHIL 161, CHIL 270</td>
<td>up to 6</td>
</tr>
<tr>
<td>ROP Teaching Careers (1 year)</td>
<td>Clairemont, Hoover, Lincoln, Madison, Mira Mesa, Morse, Patrick Henry, Point Loma, San Diego, Scripps and University City</td>
<td>CHIL 270</td>
<td>up to 4</td>
</tr>
</tbody>
</table>
### TECH PREP ARTICULATED COURSES

<table>
<thead>
<tr>
<th>HIGH SCHOOL COURSE(S)/PROGRAM</th>
<th>HIGH SCHOOL SITE(S)</th>
<th>MIRAMAR COURSE(S)</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Science (1 year)</td>
<td>Grossmont Union High School District/El Cajon Valley H.S.</td>
<td>FIPT 102 OR FIPT 103 OR FIPT 104</td>
<td>3</td>
</tr>
<tr>
<td>Website Design (1 year)</td>
<td>Mission Bay</td>
<td>CBTE 162</td>
<td>2</td>
</tr>
<tr>
<td>Teaching Academy (2 years)</td>
<td>Mira Mesa</td>
<td>EDUC 200</td>
<td>3</td>
</tr>
<tr>
<td>Teaching Academy (2 years)</td>
<td>Patrick Henry</td>
<td>EDUC 200 CHIL 270 SPAN 085</td>
<td>up to 10</td>
</tr>
</tbody>
</table>
Transfer Guide
How to Use this Guide

This guide has been developed to help students plan an academic program for transfer to a four-year college or university. The Transfer Planning Guide provides information regarding transfer admissions, general education, and major preparation for colleges and universities frequently transferred into by Miramar College students.

This guide is not intended to be a substitute for academic counseling and advisement. Course and program changes may occur throughout the year; students are advised to consult with a Miramar College counselor for current information each semester.

NOTE: College and university requirements are subject to change. This guide is revised each summer by the San Diego Miramar College Transfer Center Coordinator and the campus Articulation Officer. Revisions are made according to the most current articulation agreements and catalogs available at the time of printing. Students should always consult the catalog of the receiving institution for the most up-to-date requirements. The responsibility for academic planning and accurate transfer information rests with you, the student.

Transfer Services

The Transfer Center mission is to help students successfully transfer to four-year colleges or universities. A variety of resources are available, including:

- Academic Counseling and assistance in forming a long-range plan
- Guidance in researching and selecting a transfer institution.
- Individual appointments with representatives from UC, CSU, and independent colleges and universities.
- Transfer application and TAG workshops.
- Transfer Admission Agreements and Guarantees with selected universities.

For additional information regarding specific services, call the San Diego Miramar College Transfer Center (619) 388-7380.

We’re on the web at http://www.miramarcollege.net/depts/ctc/index.html

Miramar College extends its gratitude to the Rancho Santiago Community College District for their generosity in sharing many of the materials that comprise this section.
Educational Options in California

**VOCATIONAL CERTIFICATE**
Major courses only - Number of units required varies. A series of special major courses, all related to a particular occupational skill. Offered by community colleges and private educational organizations. Can be helpful in obtaining or upgrading employment.

**ASSOCIATE DEGREE**
You receive an associate of arts (AA) or an associate of science (AS) degree upon completion of courses in a particular major PLUS General Education courses, District requirements, and often electives; 60 units required. Normally requires two years or four semesters of full-time study. Offered by community colleges and some four-year colleges.

**BACHELOR'S (OR BACCALAUREATE) DEGREE**
Major courses PLUS General Education and often a minor or electives. 120-132 total units required. Usually referred to as BS or BA (Bachelor of Science or Arts) degrees. Normally requires 4 years of fulltime study. You may complete the first two years at a community college and then transfer to a four-year college or university.

**MASTER'S DEGREE**
Bachelor's degree PLUS graduate level courses in specialized area. Bachelor's degree units (120-132) PLUS 30-60 units. Usually referred to as MA or MS (Master of Arts or Science) degree. Normally requires two additional years of fulltime study AFTER completion of the Bachelor's degree.

**DOCTORATE DEGREE**
Advanced training beyond the Bachelor's and Master's degree. Units vary, depending on program of study. Usually referred to as Ph.D. or Ed.D. (Doctor of Philosophy or Doctor of Education). Normally requires three to five years of fulltime study AFTER completion of the Masters degree.

---

Diagram:
- **10 UC's**
- **23 CSUs**
- **108 California Community Colleges**
- **Vocational Certificate**
- **Associate Degree**
- **Bachelor's Degree**
- **Master's Degree**
- **Doctorate Degree**

---

California Independent Colleges and Universities
Educational Options Available at San Diego Miramar College

- **VOCATIONAL CERTIFICATE OF ACHIEVEMENT**
  - Completion of two or more courses
  - Department award
  - Minimum 18 units

- **CERTIFICATE OF COMPLETION**
  - Completion of two or more courses
  - Department award

- **ASSOCIATE DEGREE**
  - Major courses, plus
  - General education courses, plus
  - District requirements
  - 60 units minimum

- **TRANSFER PROGRAMS**
  - Major courses and lower division prep-to-major, plus
  - General education courses, plus
  - Elective courses
  - 56-70 units minimum
Public Four-year Institutions in California
# Information about Colleges and Universities, Fees and Tuition

<table>
<thead>
<tr>
<th>THE CALIFORNIA COMMUNITY COLLEGES</th>
<th>THE CALIFORNIA STATE UNIVERSITIES</th>
<th>THE UNIVERSITY OF CALIFORNIA</th>
<th>ASSOCIATION OF INDEPENDENT CALIFORNIA COLLEGES AND UNIVERSITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>(CCC system, 108 colleges)</td>
<td>(CSU system, 23 universities)</td>
<td>(UC SYSTEM, 10 universities)</td>
<td>(76 accredited)</td>
</tr>
</tbody>
</table>

## ADMISSION REQUIREMENTS FOR FRESHMAN

- **State Resident**
  - Upper 331/3% of California high school seniors based on:
    1. High school GPA in grade 10 through 12, excluding E.S./Athletics
    2. SAT or ACT scores
    3. Subject requirement
  - Requirements differ for nonresidents and foreign students.

- **State Resident**
  - Upper 12 1/12% of CA high school seniors based on:
    1. Subject requirement
    2. Scholarship requirement
    3. Examination requirement
  - Requirements differ for nonresidents and foreign students.

Refer to individual college catalog or request booklet on Independent California colleges and universities from:
- AICCU
  - 1100 Eleventh Street
  - Suite 10
  - Sacramento, CA 95814
- Or visit: [www.aiccu.edu](http://www.aiccu.edu)

## ACADEMIC CALENDAR

- **Refer to individual catalog.**
  - Usually a semester system with on-going classes
    - 16 on semester system
    - 6 on quarter system
    - 1 on 4-1-4 system
    - 8 on quarter system
    - 2 on semester system (Berkeley & Merced)

## DEGREES GRANTED

- **Associate degree (also vocational certificates and university transfer courses leading to a BA/BS degree from a four-year college)**
- **Bachelor's and Master's**
- **Bachelors, Master's, Doctorate and specialized degrees (law, medicine, dentistry, etc).**
- **Associate, Bachelor's, Master's, Doctorates, specialized degrees (varies from campus to campus).**

## FEES AND TUITION

*Fees do not include books, room and board, transportation, and personal expenses per year.*

- **Residents of California**
  - Approximately $339/year*
  - Nonresidents are required to pay out-of-state tuition

- **Residents of California**
  - Approximately $1,841/year*
  - Nonresidents are required to pay out-of-state tuition

- **Residents of California**
  - Approximately $3,900/year*
  - Nonresidents are required to pay out-of-state tuition

See individual school catalog; approximately $4,800 to $25,917 per year

## FINANCIAL AID

Financial aid is available to students who demonstrate financial need.
A limited number of merit scholarships (not based on need) are also available.
San Diego Miramar College provides the opportunity for students to complete the first two years of a four-year college or university program of study. Students enrolled in a transfer program can complete most of the general education and lower division major requirements before transferring. Students who are planning to transfer to a four-year college or university should meet with a counselor in the Counseling Center to develop a Student Educational Plan which will identify the courses needed to transfer.

**REQUIREMENTS FOR TRANSFER STUDENTS**

1.0 **Lower-Division Preparatory Major Courses**

An area of specialization is called a major. Courses normally taught in the first or second year of college are described as lower division. Some majors require specific lower-division courses for admission to the major upon transfer. Some majors also require a higher GPA than that designated for general admission to the university. Students planning to transfer should fulfill the lower-division major requirements prescribed by the transfer institution.

2.0 **General Education Requirements**

(sometimes called GE Breadth Requirements).

These are courses required of everyone to obtain a degree, regardless of the major. Each university has different general education course requirements. However, Miramar students have a choice of either:

- completing specific requirements for an individual UC or CSU campus, or private college or university or,
- completing the approved lower-division Interssegmental General Education Transfer Curriculum (IGETC) pattern of courses acceptable at all campuses of the UC and CSU, or,
- completing the approved CSU GE Breadth Pattern of lower-division courses acceptable at all campuses of the CSU system. Students are advised to work with a counselor before making a decision, as some universities require specific general education courses for particular majors.

3.0 **Electives**

These are courses of your choice. A maximum of 70 lower-division transferable units (major, general education, and electives) will apply to the bachelor’s degree at most universities.

4.0 **Subject or Grade Deficiencies**

Remove any subject or grade deficiencies incurred in high school, if required by the transfer college for admission. Check with a counselor. Any deficiencies can be made up at Miramar.

5.0 **Scholarship**

Maintain a satisfactory grade point average in college coursework as prescribed by the four-year institution for admission and for your particular major. Generally, transfer courses should be taken for letter grade rather than credit/no credit grades. See a Counselor in the Counseling office if you consider electing to take a class CR/NCR.

While students should generally complete all these requirements during the freshman and sophomore year, they may be completed at either a community college or at a four-year college in most instances. Exception to this will be found in the admission requirements for a particular college or university, and/or a major department.

**SELECTING A UNIVERSITY**

Many students are undecided about a major when they first enter college. Pick a course in a subject area that interests you and try it out. Consider enrolling in Career Life Planning. Work with a counselor to help discover your interests and abilities and to plan a transfer program.

It is important to begin working on general education requirements since they apply to most majors. Later, when you decide on a major, you will already have some general education classes completed and you can concentrate on your major.

**SELECTING A FOUR-YEAR INSTITUTION AND COMPLETING ADMISSION PROCEDURES**

Selecting a four-year university or college for transfer that is right for you takes time and advanced planning. It is strongly recommended that students planning to transfer enroll in Personal Growth 127, College Success, during their first semester and work closely with the instructor in exploring and evaluating career/transfer options. Transfer workshops (application and TAG) and university campus tours, as well as
appointments with four-year college representatives are available through the Miramar College Transfer Center.

It is strongly recommended that students access and perhaps purchase a college catalog for the university to which they plan to transfer and to also review application/financial aid deadline dates. University catalogs and admission applications are available in the Miramar College Transfer Center and Counseling Center. Students should also check with a counselor regarding certification of general education transfer coursework and priority and/or assured admission transfer agreements with selected institutions. Certification is a legal agreement between the CSU or UC and the community colleges in California to assure that lower-division general education requirements have been satisfied. Students must request certification in the Counseling Department or the Evaluations Office at Miramar. Certification of a student’s completion of GE requirements is not a graduation requirement from Miramar nor is certification an admissions requirement to the receiving institution.

TRANSFERABILITY OF COURSES

Students may transfer a maximum of 70 units to a four-year college or university. Miramar College courses that are numbered 100-299 parallel university courses and are applied toward the associate degree and credit is intended for transfer to a four-year college or university. Final decision in regard to transferability rests with the receiving institution. It is important to work with a counselor to insure that the courses you take are transferable to the four-year institution you plan to attend, and to also insure that they meet the requirements you are working to fulfill prior to transfer.

GUARANTEED UNIVERSITY ADMISSION

Some universities guarantee transfer admission to San Diego Miramar College students who meet certain criteria. Current programs include:

- Transfer Admission Guarantee (TAG) with University of California, San Diego (UCSD). TAG core GE pattern.
- UniversityLink Program to UCSD. Students from local area high schools sign a contract, complete two years of study at Miramar (60 units), meet minimum GPA requirements (2.8), and are guaranteed admission to UCSD Fall quarter. IGETC or TAG core GE pattern.
- Guaranteed Admission for Transfer Entry (GATE) with UC Santa Cruz. IGETC GE pattern.
- Transfer Admission Agreement (TAA) to UC Davis. Students complete the IGETC GE pattern, prep-to-major requirements, and meet the minimum GPA, and are guaranteed admission to UC Davis. IGETC GE pattern.
- Cooperative Admissions Program (CAP) to UC Berkeley. The opportunity to participate in this program is extended by UC Berkeley to graduating high school seniors, based up their initial application to UC Berkeley. IGETC GE pattern.
- Transfer Studies Degree (TSD) to San Diego State University. Students are required to complete a two-year degree in Transfer Studies, meet the GPA and major preparation requirements. CSU-GE breadth or IGETC GE pattern.

Students are encouraged to meet with a counselor in the Counseling Center or the Miramar College Transfer Center to discuss these programs. Consider reviewing additional information available on the Transfer Center website at http://www.miramarcollege.net/depts/ctc/index.html

HONORS PROGRAM AND HONORS COURSES

The Honors Program offers honors sections of transferable general education courses. These classes are further characterized by close interaction with Honors Program faculty, small class size, and special projects and activities. The major benefits for members of the program include:

- Honors transfer agreements with four-year institutions that offer minimally “priority admission”, and in some instances guaranteed admission.
- Designation on your transcript of honors courses and accumulation of honors credits to graduate as a President’s scholar.
- An enriched environment that allows for student-directed activities and discussions, guest speakers, field trips, and more.
- Smaller classes.
- More competitive for scholarships for both continuing and transferring students.

For more information, contact the Honors Program Coordinator, Carmen Jay, at 619/388-7532 or cjay@sdcccd.net.
University of California (UC)

The University of California has ten campuses located throughout the state (review page 6 for map of campus locations). Each campus within the system has its own unique geographic and academic character. The UC offers bachelor's, master's and doctoral degrees in a variety of subject areas.

To obtain a baccalaureate degree from the UC system, a student must complete a minimum of 120 semester units (180 quarter units). A maximum of 70 units of transferable credit will be accepted for courses completed at the community college. Prospective students should consult with a Miramar College counselor regarding UC admission requirements. In addition, students should review the website for the UC's online admission information and application network: http://www.ucop.edu/pathways.

UNIVERSITY OF CALIFORNIA ADMISSIONS REQUIREMENTS FOR TRANSFERS

The University considers you a transfer applicant if you graduated from high school and enrolled in a regular session at another college or university. You can't disregard your college record and apply as a freshman.

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) average in all transferable coursework.

1.0 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.

2.0 If you met the Scholarship Requirement 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.

3.0 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 of transferable college credit (90 quarter) with a grade point average of at least 2.4 - non-Residents must have a 2.8 (no more than 14 semester/21 quarter units may be taken Pass/Not Pass), and:

b. Complete the following course pattern 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.

Important Note - Unit Limitation - Students who have attended a four-year institution in addition to a California community college may be limited in the number of total units permitted prior to enrollment at UC. Students who have "too many" units may be denied admission. Each campus has its own policy related to this limit.

WHEN TO APPLY?
Berkeley, Fall Semester Nov. 1-30
ALL OTHER CAMPUSES:
Fall Quarter November 1 - 30
Winter Quarter July 1 - 31
Spring Quarter October 1-31

Students who apply during these one-month periods are given first consideration for admission. For fall quarter entry, most majors and programs are open to new students. There are fewer openings in the winter and spring terms; some classes are closed winter and spring quarters.
The UC requires you to write a personal statement as part of your application. The personal statement is a very important part of your application for both admission and scholarships and must be submitted with your completed application form.

The purpose of the personal statement is to give you an opportunity to reveal important aspects about yourself such as your background and character that are not addressed or apparent in the application. A well-written personal statement should reveal vitally important information that can make a difference in admission to the university and in awarding of scholarships. Trained professionals who look for personal attributes and achievements to discover and evaluate distinctions among applicants read the personal statement. It helps them gain insight into your level of achievement and character. Along with your academic record, it helps admissions representatives weigh what their campus can offer the applicant with what the applicant can contribute to the enrichment of their campus community.

Recommended personal characteristics include: creativity, intellectual curiosity and achievement, exceptional recognition, ability to overcome or manage unusual circumstances, challenges and hardships, initiative, motivation, leadership, persistence, service to others, special and distinguishing potential, substantial experience with other racial or cultural groups and unusual talent. You should consider describing your values and goals and how they have been demonstrated in your life.

As a transfer student, you should also discuss your interest in your intended major, addressing specific goals. You should describe any related work or volunteer experience and explain the way your interest in the field developed.

The personal statement should focus on relatively recent activities and experiences, although the campus is interested in any special circumstances that may have had a significant impact on you earlier in life. If you choose to write about unusual circumstances or hardship, do so not to catch the attention of admissions staff, but discuss how these situations affected you and what you have achieved as a result. Elaborating on the details and including examples is what makes your essay personalized and effective. If you do not write about your hardship, choose a topic that reveals your character and displays your intellectual vitality/achievements and what you have gained from it.

Personal statements should reveal the individuality and appeal of the applicant. Your approach in expressing yourself may be an important factor, especially when many applicants share the same experiences, such as activities in student government, travel abroad, participation in sports and volunteer experience. What professional readers want to learn about you is how the activity, job, or experience you write about has changed your attitude, solidified a belief, established a goal, sharpened a perception, or heightened an appreciation. They seek to discover a sense of you as a
unique person and the contribution you will make to their campus. The operative concept is what has made you different and unique and individual, and what wonderful things you can bring to the University because of your experiences.

NO MORE THAN TWO PAGES

Use no more than two sheets of 8.5” x 11” white paper for your personal statement.

Use only one side of each sheet. Additional pages will not be accepted. Please type (double of 1.5 space) or use black ink. In the top right corner of each page, print your name, Social Security Number and the words "Personal Statement".
California State University (CSU)

California State University has 23 campuses located throughout the state (review page 6 for map of campus locations). The CSU offers more than 1,600 bachelors and master’s degree from the CSU system.

A To obtain a baccalaureate degree from the CSU system, a student must complete a minimum of 120 or more semester units. A maximum of 70 units of transferable credit will be accepted for courses taken at Miramar College. Prospective CSU transfer students should consult a Miramar counselor regarding CSU admission. In addition, students should check out the website for the entire California State University: http://www.csumentor.edu

California State University (CSU)

CALIFORNIA STATE UNIVERSITY ADMISSIONS REQUIREMENTS FOR TRANSFER

Lower-Division Transfer Requirements

If you have completed fewer than 56 transferable semester (84 quarter units), you will qualify for admission if you have a grade point average of 2.0 (C) or better in all transferable units attempted, are in good standing at the last college or university attended, and meet the admission requirements for first-time freshmen, i.e., you have completed with a grade of C or better each of the courses in the comprehensive pattern of college preparatory subject requirements and have a qualifiably eligibility index. If you did not complete all the subject requirements in high school, appropriate college courses may be used to make up the missing subjects. Nonresidents must meet the eligibility index for nonresidents. Some campuses do not accept lower-division transfer students.

Upper Division Transfer Requirements

If you have completed at least 56-60* transferable semester (84 quarter units), you will qualify for admission if you have a grade point average of 2.0 (C) or better in all transferable units attempted (non-California residents must have a grade point average of 2.4), and are in good standing at the last college or university attended.

* SDSU and some other campuses require 60 transferable units

You may become eligible if you have completed at least 30 semester (45 quarter) units of college courses with a grade of C or better in each course to be selected from courses in English, arts and humanities, social science, science and mathematics at a level at least equivalent to courses that meet general education requirements.

The 30 semester (45 quarter) units must include all of the general education requirements in communication in the English language (at least 9 semester or oral communication, and critical thinking) and mathematics (at least 3 semester or 4 quarter units) or, if completing the Intersegmental General Education Transfer Curriculum, English communication (at least 9 semester or 12 quarter units in English composition, oral communication, and critical thinking) and the requirements in mathematics (at least 3 semester or 4 quarter units).

Listed on the next page are timelines for specific coursework to be completed in order to be eligible for CSU admission. Please note that the information there is for admission for the 2002-2003 academic year. The information is subject to change in subsequent years. Thus it is to be used as a guideline only for admission beyond Fall 2002 and Spring 2003.

WHEN TO APPLY?

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<th>Fall Semester/Quarter</th>
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<td>Spring Semester/Quarter</td>
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Students who apply during these one-month periods are given first consideration for admission. Applications for impacted programs must be filed during the initial filing period. SDSU, beginning academic year 2004-05 will no longer offer a Spring admission cycle.
## TRANSFER TO CSU

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</tr>
<tr>
<td>Los Angeles</td>
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<td>Fall 2003</td>
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</table>

CSU campuses that allow prospective students to complete the 56 transferable semester (84 quarter) units and/or other general education type courses (excluding Areas A and B4) during the Summer prior to Fall 2003 enrollment.

Dates by which upper division transfer students must complete Area A (English) and B4 (Quantitative Reasoning) prior to Fall 2003 and Winter 2004 and Spring 2004 enrollment.

56 semester (84 quarter) units must be completed by the end of:

GE type courses must be completed by the end of:

For enrollment period (shown in **BOLD** type), requirements/eligibility must be completed by end of academic session (shown in **REGULAR** type). Note that other restrictions listed below sometimes apply.

- Fullerton: Will not permit a student to register until Areas A and B4 and 30 units of general education are completed with a grade of C or better.
  - Spring 2004: Grades of C or better must be substantiated in GE Areas A and B4 prior to registration.

- Hayward: Will not permit a student to register until Areas A and B4 and 30 units of general education are completed with a grade of C or better.
  - Spring 2004: Grades of C or better must be substantiated in GE Areas A and B4 prior to registration.
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Fall 2003: Summer 2003
Spring 2004: Closed

Fall 2003: Summer 2003
Spring 2004: Fall 2003

Fall 2003: Summer 2003
Spring 2004: Fall 2000

Fall 2003: Spring 2003
Winter 2004: Summer 2003
Spring 2004: Fall 2003

Fall 2003: Spring 2003; (student may register late depending upon the timely receipt of final grade(s)).
Spring 2004: Fall 2003; (student may register late depending upon the timely receipt of final grade(s)).

Fall 2003: Summer 2003
Winter 2004: Summer 2003
Spring 2004: Fall 2003

Fall 2003: Summer 2003
Winter 2004: Summer 2003
Spring 2004: Fall 2003

Fall 2003: Spring 2003; (Summer 2003 will NOT be considered for determining admission eligibility).
Spring 2004: Closed

Fall 2003: Summer 2003
Spring 2004: Fall 2003

Fall 2003: Summer 2003
Spring 2004: Fall 2003

Fall 2003: Summer 2003
Winter 2004: Fall 2003

Fall 2003: Summer 2003
Spring 2004: Fall 2003

Fall 2003: Summer 2003
Winter 2004: Fall 2003
Spring 2003: Fall 2003

*** THESE ABOVE DEADLINES ARE SUBJECT TO CHANGE; CHECK WITH RECEIVING INSTITUTION***
California Articulation Number

The California Articulation Number (CAN) System is a statewide numbering system independent from 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 numbers, 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 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 occasionally being redefined, qualified for or deleted from the CAN database, students should always check with their counselor to determine how CAN-designated courses fit into their educational plan for transfer.

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California Articulation Number
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</tr>
</tbody>
</table>

***Be advised that articulation agreements are susceptible to alterations by the college/university***

****Please check with the Counseling Department at Miramar College for updated information each semester****
GENERAL EDUCATION REQUIREMENTS OF INDEPENDENT AND OUT-OF-STATE COLLEGES AND UNIVERSITIES

San Diego Miramar College has articulated general education requirements with a number of independent institutions such as Biola University, Occidental College, the University of Southern California, and Pepperdine University. In addition, some independent institutions will accept completion of the California State University General Education Breadth Requirements and/or the Intersegmental General Education Transfer Curriculum in place of their own lower-division general education requirements. Students transferring to independent or out-of-state institutions should obtain a catalog and meet with a counselor in order to determine appropriate general education requirements.

GENERAL EDUCATION REQUIREMENTS FOR CALIFORNIA STATE UNIVERSITY

To earn a bachelor's degree from the California State University (CSU), each student must complete a program of general education. Miramar offers two general education programs that will enable students to meet the lower-division general education requirements for all CSU campuses prior to transfer. Students can complete either the CSU General Education Breadth Requirements or the Intersegmental General Education Transfer Curriculum. Students who began at CSU and are transferring back to CSU must take more than half of their units at a California community college in order to use the IGETC. Students can also meet the general education requirements of the specific CSU campus to which they are transferring.

GENERAL EDUCATION REQUIREMENTS FOR UNIVERSITY OF CALIFORNIA

To earn a bachelor's degree from the University of California, each student must complete a program of general education. To meet the general education requirements of the University, students can complete either the Intersegmental General Education Transfer Curriculum (Transfer Studies, IGETC), or meet individual campus general education requirements. Miramar College strongly recommends that students follow the IGETC rather than the individual campus requirements, as this will provide more flexibility when applying to transfer. However, IGETC should not be used for certain colleges and majors. Please reference "IGETC Advisor for UC-bound Transfers" at http://www.ucop.edu/pathways/infoctr/at/atplan-igetc.html. Students who began at a UC campus and who intend to transfer back to the same campus cannot use IGETC. In addition, some IGETC limitations apply to students who began at one UC campus and who intend to transfer to a different UC campus (This restriction does not apply to students who have enrolled in UC summer session or extension classes only). Students not advised to use IGETC should follow the GE requirements of the UC campus they are transferring to.

CERTIFICATION OF GENERAL EDUCATION FOR TRANSFER TO UC OR CSU

Upon a student's request, Miramar Evaluators will verify or "certify" the completion of lower-division general education requirements for transfer to the University of California (IGETC) or the California State University (either CSU General Education Breadth Requirements or the IGETC).

Students who transfer without certification will have to meet the general education requirements of the specific UC or CSU campus to which they are transferring. Meeting these requirements may necessitate taking additional lower-division general education courses. Courses are term specific: Courses used to meet IGETC requirements are term specific. A course used in the certification process must be on the IGETC list for the term in which it is taken.

Students who have taken courses at other colleges may be able to use their coursework in the certification process. Using the IGETC, Miramar will certify ("guarantee") courses taken at other California community colleges in the area designated by the offering college. Courses taken at California four-year colleges or out-of-state two-year or four-year colleges will be certified for IGETC if they are equivalent to courses on the Miramar College IGETC list. Equivalency is determined by Miramar College faculty teaching the course. Courses from foreign institutions cannot be used in the certification process, except for certification of competence in a language other than English.

Using the CSU General Education Breadth Requirements, Miramar will certify ("guarantee") courses taken at other California community colleges in the areas designated by the offering college. Courses taken at California four-year or out-of-state two- or four-year colleges will be certified for CSU GE Breadth if they are equivalent to courses on the Miramar College CSU GE Breadth list. Consult a Miramar College counselor for additional information.
Upon completion of a GE pattern, students must request certification of coursework in Counseling or Evaluations.

**Certification of CSU General Education Breadth Requirements**

Certification is a legal agreement between CSU and community colleges in California to assure that CSU lower division general education requirements have been satisfied.

It is the policy of the San Diego Community College District to provide certification of general education breadth requirements when such service is specifically requested by the student. The certification form is available in the Counseling Department, room C-302 or the Evaluations Office, room C-304.

Certification is based on coursework which is completed in the San Diego Community College District or from institutions which have filed a list of certifiable courses with the Chancellor's Office, California State University.

Official transcripts from other colleges and universities must be on file before submitting the petition, and will be reviewed for inclusion in the certification process.

Please Note: Coursework completed at a foreign college or university, that is not accredited by one of the U.S. regional accrediting agencies, cannot be used to satisfy requirements for certification.

Certification of General Education courses is generally requested when the CSU GE pattern has been completed. Prior to GE certification, students must complete a minimum of 12 units in residence at the San Diego Community College District colleges, or 3 units of general education transferable course work from the CSU Certification Pattern prior to a review of courses for certification. A minimum of 39 semester units is required for certification.

Students may report any problems encountered with certification of general education for transfer to a counselor. Students will be assisted by the Counseling Department and Evaluations Office to resolve any transfer problems related to certification.

Courses which can be certified as general education for transfer to California State Universities are listed below. These courses are transferable to most four-year institutions and are considered baccalaureate level. There are five major areas of general education.

- Course is listed in more than one area but shall not be certified in more than one area.

Certification of a student’s completion of CSU general education requirements is not a graduation requirement. Therefore, students do not have catalog rights to a certification pattern used by a certifying institution or a CSU campus.

(Certification Pattern)

Students are eligible for transfer to the California State Universities and Colleges upon completion of 56 transferable units (60 units recommended for Junior standing) with a grade point average of 2.0 (“C”) or better. A 48-unit GE pattern toward the bachelor’s degree must be completed. Of these 48 units, 9 units in upper division must be completed after transfer to CSU. (*)

Course is listed in more than 1 area but shall not be certified in more than 1 area.

**Area A. Communication in the English Language and Critical Thinking:**

Minimum 9 semester units (12-15 qtr units). Select one course from each group. (CR/NCR grades are NOT recommended in this area, as many CSU campuses require letter grades of "C" or better for graduation.)

<table>
<thead>
<tr>
<th>A1: Oral Communication</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BLAS 106 Black Oral Expression and Interpretation (Mesa)</td>
<td></td>
</tr>
<tr>
<td>SPEE 103 Oral Communication</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A2: Written Communication</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101 Reading and Composition</td>
<td></td>
</tr>
<tr>
<td>ENGL 105 Composition and Literature</td>
<td></td>
</tr>
</tbody>
</table>
### A3: Critical Thinking

- **ENGL 205** Critical Thinking and Intermediate Composition
- **PHIL 100** Logic and Critical Thinking
- **PHIL 103** Historical Introduction to Philosophy (Mesa)
- **PHIL 205** Critical Thinking and Writing in Philosophy
- **SPEE 160** Argumentation

### Area B. Physical Universe and its Life Forms; Mathematics/Quantitative Reasoning:

No fewer than nine semester units (12-15 quarter units) including one course in B1, one course in B2, and one course in B4. One of the courses selected to fulfill the requirement for B1 or B2 must include a laboratory component or a separate course must be taken from B3. If a separate laboratory course is taken from B3, it must match one of the two lecture courses taken from B1 or B2.

#### B1: Physical Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR 101</td>
<td>Descriptive Astronomy</td>
</tr>
<tr>
<td>CHEM 100</td>
<td>Fundamentals of Chemistry</td>
</tr>
<tr>
<td>CHEM 130</td>
<td>Introduction to Organic &amp; Biological Chemistry</td>
</tr>
<tr>
<td>CHEM 151</td>
<td>Introduction to General Chemistry (Lecture/Laboratory) (Miramar)</td>
</tr>
<tr>
<td>CHEM 152</td>
<td>Introduction to General Chemistry (City, Mesa)</td>
</tr>
<tr>
<td>CHEM 200</td>
<td>General Chemistry I (Lecture)</td>
</tr>
<tr>
<td>CHEM 201</td>
<td>General Chemistry II (Lecture)</td>
</tr>
<tr>
<td>GEOG 101</td>
<td>Physical Geography</td>
</tr>
<tr>
<td>GEOG 103</td>
<td>Introduction to Meteorology (Mesa)</td>
</tr>
<tr>
<td>GEOL 100</td>
<td>General Geology</td>
</tr>
<tr>
<td>PHYN 100</td>
<td>Survey of Physical Science</td>
</tr>
<tr>
<td>PHYN 120</td>
<td>Physical Oceanography (Miramar)</td>
</tr>
<tr>
<td>PHYS 100</td>
<td>Introductory Physics (Lecture/Laboratory) (Mesa)</td>
</tr>
<tr>
<td>PHYS 120A</td>
<td>General Physics I (City)</td>
</tr>
<tr>
<td>PHYS 120B</td>
<td>General Physics II (City)</td>
</tr>
<tr>
<td>PHYS 124A</td>
<td>General Physics</td>
</tr>
<tr>
<td>PHYS 124B</td>
<td>General Physics</td>
</tr>
<tr>
<td>PHYS 195A</td>
<td>Mechanics (Lecture &amp; Laboratory) (City, Mesa)</td>
</tr>
<tr>
<td>PHYS 195B</td>
<td>Electricity &amp; Magnetism (Lecture/Laboratory) (City, Mesa)</td>
</tr>
<tr>
<td>PHYS 195C</td>
<td>Waves, Light and Modern Physics (Lecture/Laboratory) (City, Mesa)</td>
</tr>
</tbody>
</table>

#### B2: Life Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ANTH 102</td>
<td>Introduction to Physical Anthropology</td>
</tr>
<tr>
<td>BIOL 100</td>
<td>Natural History-Environmental Biology (Lecture/Laboratory) (Mesa, Miramar)</td>
</tr>
<tr>
<td>BIOL 101</td>
<td>Issues in Environmental Biology (Lecture/Laboratory) (City)</td>
</tr>
<tr>
<td>BIOL 105</td>
<td>Principles of Biology (Miramar)</td>
</tr>
<tr>
<td>BIOL 107</td>
<td>General Biology (Lecture/Laboratory) (City, Mesa)</td>
</tr>
<tr>
<td>BIOL 110</td>
<td>Introduction to Oceanography (City, Mesa)</td>
</tr>
<tr>
<td>BIOL 115</td>
<td>Marine Biology (Lecture/Laboratory)</td>
</tr>
<tr>
<td>BIOL 130</td>
<td>Human Heredity</td>
</tr>
<tr>
<td>BIOL 131</td>
<td>Introduction to Biotechnology (Miramar)</td>
</tr>
<tr>
<td>BIOL 160</td>
<td>Elements of Human Anatomy &amp; Physiology (Lecture/Laboratory) (Mesa, Miramar)</td>
</tr>
<tr>
<td>BIOL 180</td>
<td>Plants and People (City)</td>
</tr>
<tr>
<td>BIOL 205</td>
<td>General Microbiology (Lecture/Laboratory)</td>
</tr>
<tr>
<td>BIOL 210A</td>
<td>Introduction to the Biological Sciences I (Lecture/Laboratory)</td>
</tr>
<tr>
<td>BIOL 210B</td>
<td>Introduction to the Biological Sciences II (Lecture/Laboratory)</td>
</tr>
<tr>
<td>BIOL 215</td>
<td>Introduction to Zoology (Lecture/Laboratory)</td>
</tr>
<tr>
<td>BIOL 230</td>
<td>Human Anatomy (Lecture/Laboratory)</td>
</tr>
<tr>
<td>BIOL 235</td>
<td>Human Physiology (Lecture/Laboratory)</td>
</tr>
<tr>
<td>BIOL 250</td>
<td>Introduction to Botany (Lecture/Laboratory) (Mesa, Miramar)</td>
</tr>
<tr>
<td>PSYC 260</td>
<td>Introduction to Physiological Psychology</td>
</tr>
</tbody>
</table>

#### B3: Laboratory Activity

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 104</td>
<td>Laboratory in Physical Anthropology (Mesa)</td>
</tr>
<tr>
<td>ASTR 109</td>
<td>Practices in Observing (Laboratory) (City, Mesa)</td>
</tr>
<tr>
<td>ASTR 111</td>
<td>Astronomy Laboratory (Laboratory) (Mesa, Miramar)</td>
</tr>
<tr>
<td>BIOL 100</td>
<td>Natural History-Environmental Biology (Lecture/Laboratory) (Mesa, Miramar)</td>
</tr>
</tbody>
</table>
B4: Mathematics/Quantitative Reasoning

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 101</td>
<td>Issues in Environmental Biology (Lecture/Laboratory) (City)</td>
</tr>
<tr>
<td>BIOL 106</td>
<td>Principles of Biology (Laboratory) (Mira)</td>
</tr>
<tr>
<td>BIOL 107</td>
<td>General Biology (Lecture/Laboratory) (City, Mira)</td>
</tr>
<tr>
<td>BIOL 115</td>
<td>Marine Biology (Lecture/Laboratory) (Mira)</td>
</tr>
<tr>
<td>BIOL 131</td>
<td>Introduction to Biotechnology (Mira)</td>
</tr>
<tr>
<td>BIOL 160</td>
<td>Elements of Human Anatomy &amp; Physiology (Lecture/Laboratory) (Mira)</td>
</tr>
<tr>
<td>BIOL 205</td>
<td>General Microbiology (Lecture/ Laboratory)</td>
</tr>
<tr>
<td>BIOL 210A</td>
<td>Introduction to the Biological Sciences I (Lecture/Laboratory)</td>
</tr>
<tr>
<td>BIOL 210B</td>
<td>Introduction to the Biological Sciences II (Lecture/Laboratory)</td>
</tr>
<tr>
<td>BIOL 215</td>
<td>Introduction to Zoology (Lecture/ Laboratory)</td>
</tr>
<tr>
<td>BIOL 230</td>
<td>Human Anatomy (Lecture/Laboratory)</td>
</tr>
<tr>
<td>BIOL 235</td>
<td>Human Physiology (Lecture/ Laboratory)</td>
</tr>
<tr>
<td>BIOL 250</td>
<td>Introduction to Botany (Lecture/ Laboratory) (Mira)</td>
</tr>
<tr>
<td>CHEM 100L</td>
<td>Fundamentals of Chemistry (Laboratory)</td>
</tr>
<tr>
<td>CHEM 130L</td>
<td>Introduction to Organic &amp; Biological Chemistry (Laboratory)</td>
</tr>
<tr>
<td>CHEM 151</td>
<td>Introduction to General Chemistry (Lecture/Laboratory) (Mira)</td>
</tr>
<tr>
<td>CHEM 152L</td>
<td>Introduction to General Chemistry Laboratory (City, Mira)</td>
</tr>
<tr>
<td>CHEM 200L</td>
<td>General Chemistry I (Laboratory)</td>
</tr>
<tr>
<td>CHEM 201L</td>
<td>General Chemistry II (Laboratory)</td>
</tr>
<tr>
<td>GEOG 101L</td>
<td>Physical Geography (Laboratory)</td>
</tr>
<tr>
<td>GEOI 101</td>
<td>General Geology (Laboratory)</td>
</tr>
<tr>
<td>PHYN 101</td>
<td>Survey of Physical Science (Laboratory)</td>
</tr>
<tr>
<td>PHYS 100</td>
<td>Introductory Physics (Lecture/ Laboratory) (Mira)</td>
</tr>
<tr>
<td>PHYS 121A</td>
<td>General Physics Lab-A (City)</td>
</tr>
<tr>
<td>PHYS 121B</td>
<td>General Physics Lab-B (City)</td>
</tr>
<tr>
<td>PHYS 124A</td>
<td>General Physics</td>
</tr>
<tr>
<td>PHYS 124B</td>
<td>General Physics</td>
</tr>
<tr>
<td>PHYS 195A</td>
<td>Mechanics (Lecture/ Laboratory) (Mira)</td>
</tr>
<tr>
<td>PHYS 195B</td>
<td>Electricity &amp; Magnetism (Lecture/ Laboratory) (Mira)</td>
</tr>
<tr>
<td>PHYS 195C</td>
<td>Waves, Light and Modern Physics (Lecture/Laboratory) (Mira)</td>
</tr>
<tr>
<td>BIOL 200</td>
<td>Biological Statistics (City, Mira)</td>
</tr>
<tr>
<td>MATH 104</td>
<td>Trigonometry</td>
</tr>
<tr>
<td>MATH 107</td>
<td>Introduction to Scientific Programming</td>
</tr>
<tr>
<td>MATH 107L</td>
<td>Introduction to Scientific Programming Lab</td>
</tr>
<tr>
<td>MATH 116</td>
<td>College &amp; Matrix Algebra</td>
</tr>
<tr>
<td>MATH 118</td>
<td>A Survey of Modern Mathematics (City, Mira)</td>
</tr>
<tr>
<td>MATH 119</td>
<td>Elementary Statistics</td>
</tr>
<tr>
<td>MATH 121</td>
<td>Basic Techniques of Applied Calculus I</td>
</tr>
<tr>
<td>MATH 122</td>
<td>Basic Techniques of Calculus II</td>
</tr>
<tr>
<td>MATH 141</td>
<td>Precalculus</td>
</tr>
<tr>
<td>MATH 150</td>
<td>Calculus with Analytic Geometry I</td>
</tr>
<tr>
<td>MATH 151</td>
<td>Calculus with Analytic Geometry II</td>
</tr>
<tr>
<td>MATH 181</td>
<td>Me comtronics College Algebra and Trigonometry I (City)</td>
</tr>
<tr>
<td>MATH 182</td>
<td>Me comtronics College Algebra and Trigonometry II (City)</td>
</tr>
<tr>
<td>MATH 183</td>
<td>Me comtronics Calculus I (City)</td>
</tr>
<tr>
<td>MATH 184</td>
<td>Me comtronics Calculus II (City)</td>
</tr>
<tr>
<td>MATH 210A</td>
<td>Concepts of Elementary School Mathematics I</td>
</tr>
<tr>
<td>MATH 210B</td>
<td>Concepts of Elementary School Mathematics II</td>
</tr>
<tr>
<td>MATH 245</td>
<td>Discrete Mathematics</td>
</tr>
<tr>
<td>MATH 252</td>
<td>Calculus with Analytic Geometry III</td>
</tr>
<tr>
<td>MATH 254</td>
<td>Introduction to Linear Algebra</td>
</tr>
<tr>
<td>MATH 255</td>
<td>Differential Equations</td>
</tr>
<tr>
<td>PHIL 101</td>
<td>Symbolic Logic</td>
</tr>
<tr>
<td>PSYC 258</td>
<td>Behavioral Science Statistics (City, Mira)</td>
</tr>
</tbody>
</table>

AREA C. Arts, Literature, Philosophy and Foreign Languages:

No fewer than nine semester units (12-15 quarter units), including one course in C1, one course in C2, and a third course from either C1 or C2.

C1: Arts (Art, Dance, Music, Theatre)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTF 100</td>
<td>Art Orientation</td>
</tr>
<tr>
<td>ARTF 109</td>
<td>Nineteenth and Twentieth Century Art</td>
</tr>
<tr>
<td>ARTF 110</td>
<td>Art History: Prehistoric to Gothic</td>
</tr>
<tr>
<td>ARTF 111</td>
<td>Art History: Renaissance to Modern</td>
</tr>
<tr>
<td>ARTF 113</td>
<td>African, Oceanic, Native American Art (Mira)</td>
</tr>
<tr>
<td>ARTF 115</td>
<td>African Art (City, Mira)</td>
</tr>
<tr>
<td>ARTF 120</td>
<td>North American Indian Art (Mira)</td>
</tr>
<tr>
<td>Course</td>
<td>Title</td>
</tr>
<tr>
<td>----------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>ARTF 125</td>
<td>Art History: Survey Far Eastern Art</td>
</tr>
<tr>
<td>BLAS 110</td>
<td>Afro-American Art (City, Mesa)</td>
</tr>
<tr>
<td>BLAS 111</td>
<td>African Art History (Mesa)</td>
</tr>
<tr>
<td>BLAS 120</td>
<td>Black Music (City, Mesa)</td>
</tr>
<tr>
<td>DRAM 181</td>
<td>Introduction to Dance (City, Mesa)</td>
</tr>
<tr>
<td>DRAM 105</td>
<td>Introduction to Dramatic Arts</td>
</tr>
<tr>
<td>DRAM 120</td>
<td>Dramatic Heritage (Miramar)</td>
</tr>
<tr>
<td>DRAM 136</td>
<td>History of Canonized Theatre Ancient Greece to the Restoration (City)</td>
</tr>
<tr>
<td>DRAM 137</td>
<td>History of Canonized Western Theatre - Restoration to the Present (City)</td>
</tr>
<tr>
<td>DRAM 151</td>
<td>Cinema as Art and Communication II (Mesa)</td>
</tr>
<tr>
<td>MUSI 100</td>
<td>Introduction to Music</td>
</tr>
<tr>
<td>MUSI 101</td>
<td>Music History I (Mesa, Miramar)</td>
</tr>
<tr>
<td>MUSI 102</td>
<td>Music History II (Mesa, Miramar)</td>
</tr>
<tr>
<td>MUSI 105</td>
<td>Music of Our Time (Mesa)</td>
</tr>
<tr>
<td>MUSI 109</td>
<td>World Music</td>
</tr>
<tr>
<td>MUSI 111</td>
<td>Jazz-History and Development</td>
</tr>
<tr>
<td>MUSI 125</td>
<td>Music, the Arts and Humanity (Mesa, Miramar)</td>
</tr>
<tr>
<td>RTVC 160</td>
<td>Introduction to Cinematography (City)</td>
</tr>
</tbody>
</table>

C2: Humanities (Literature, Philosophy, Foreign Languages)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMSL 100</td>
<td>American Sign Language (City, Mesa)</td>
<td></td>
</tr>
<tr>
<td>AMSL 101</td>
<td>American Sign Language II (City, Mesa)</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** AMSL 100 AND AMSL 101 ARE NOT CERTIFIABLE IF TAKEN WITH A FOREIGN LANGUAGE.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARAB 101</td>
<td>First Course in Arabic (City)</td>
<td></td>
</tr>
<tr>
<td>ARAB 102</td>
<td>Second Course in Arabic (City)</td>
<td></td>
</tr>
<tr>
<td>BLAS 150</td>
<td>Black Women in Literature and the Media (City, Mesa)</td>
<td></td>
</tr>
<tr>
<td>BLAS 155</td>
<td>Afro-American Literature (City, Mesa)</td>
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</tr>
<tr>
<td>CHIC 130</td>
<td>Mexican Literature in Translation (City)</td>
<td></td>
</tr>
<tr>
<td>CHIC 135</td>
<td>Chicano Literature (City, Mesa)</td>
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</tr>
<tr>
<td>CHIC 138</td>
<td>Literature of La Raza in Latin America in Translation (City, Mesa)</td>
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<tr>
<td>CHIC 203</td>
<td>Introductory Spanish for Spanish Speakers (City)</td>
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</tr>
<tr>
<td>CHIC 204</td>
<td>Intermediate Spanish for Spanish Speakers (City)</td>
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</tr>
<tr>
<td>CHIC 210</td>
<td>Chicano Culture (City, Mesa)</td>
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<tr>
<td>CHIN 101</td>
<td>First Course in Mandarin Chinese (Mesa)</td>
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</tr>
<tr>
<td>CHIN 102</td>
<td>Second Course in Mandarin Chinese (Mesa)</td>
<td></td>
</tr>
<tr>
<td>CHIN 201</td>
<td>Third Course in Mandarin Chinese (Mesa)</td>
<td></td>
</tr>
<tr>
<td>ENGL 208</td>
<td>Introduction to Literature</td>
<td></td>
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<tr>
<td>ENGL 209</td>
<td>Literary Approaches to Film</td>
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<tr>
<td>ENGL 210</td>
<td>American Literature I</td>
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<td>ENGL 211</td>
<td>American Literature II</td>
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<td>ENGL 215</td>
<td>English Literature I: 800-1799</td>
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<td>English Literature II: 1800-1900</td>
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<td>ENGL 220</td>
<td>Masterpieces of World Literature I: 1500 BCE - 1600 CE</td>
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<td>ENGL 221</td>
<td>Masterpieces of World Literature II: 1600 - Present</td>
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<td>ENGL 230</td>
<td>Asian American Literature (Mesa)</td>
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<td>ENGL 237</td>
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<td>ENGL 238</td>
<td>Evaluating Children's Literature (City, Mesa)</td>
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<td>FREN 101</td>
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<td>FREN 102</td>
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<td>FREN 202</td>
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<tr>
<td>GERM 101</td>
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<td>GERM 102</td>
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<td>World History I (City, Mesa)</td>
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<tr>
<td>HIST 101</td>
<td>World History II (City, Mesa)</td>
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<tr>
<td>HIST 105</td>
<td>Introduction to Western Civilization I</td>
<td></td>
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<tr>
<td>HIST 106</td>
<td>Introduction to Western Civilization II</td>
<td></td>
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<tr>
<td>HIST 120</td>
<td>Introduction to Asian Civilizations</td>
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<td>HIST 121</td>
<td>Asian Civilizations in Modern Times</td>
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<td>History/England and the Commonwealth I (Mesa)</td>
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<tr>
<td>HIST 126</td>
<td>History/England and the Commonwealth II (Mesa)</td>
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<tr>
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<td>HUMA 103</td>
<td>Introduction to the New Testament (Mesa)</td>
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<tr>
<td>HUMA 201</td>
<td>Mythology</td>
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<td>HUMA 202</td>
<td>Mythology: Hero's Journey (City, Mesa)</td>
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<td>ITAL 101</td>
<td>First Course in Italian (City, Mesa)</td>
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<td>ITAL 102</td>
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<td>JAPN 202</td>
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</tr>
<tr>
<td>LATI 101</td>
<td>First Course in Latin (Mesa)</td>
<td></td>
</tr>
<tr>
<td>LATI 102</td>
<td>Second Course in Latin (Mesa)</td>
<td></td>
</tr>
<tr>
<td>LATI 201</td>
<td>Third Course in Latin (Mesa)</td>
<td></td>
</tr>
<tr>
<td>PHIL 102A</td>
<td>Introduction to Philosophy</td>
<td></td>
</tr>
<tr>
<td>PHIL 102B</td>
<td>Introduction to Philosophy</td>
<td></td>
</tr>
</tbody>
</table>
AREA D. Social, Political and Economic Institutions and Behavior; Historical Background:
No fewer than nine semester units (12-15 quarter units) including three courses from at least two different disciplines. D1 through D0 each represent different disciplines.

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>PHIL 103</td>
<td>Historical Introduction to Philosophy (Mesa)</td>
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<tr>
<td>PHIL 104A</td>
<td>History of Western Philosophy (City, Mesa)</td>
</tr>
<tr>
<td>PHIL 104B</td>
<td>History of Western Philosophy (City, Mesa)</td>
</tr>
<tr>
<td>PHIL 105</td>
<td>Contemporary Philosophy (Mesa)</td>
</tr>
<tr>
<td>PHIL 106</td>
<td>Asian Philosophy (City, Mesa)</td>
</tr>
<tr>
<td>PHIL 107</td>
<td>Reflections on Human Nature</td>
</tr>
<tr>
<td>PHIL 108</td>
<td>Perspectives on Human Nature and Society (City, Mesa)</td>
</tr>
<tr>
<td>PHIL 110</td>
<td>Philosophy of Religion (Mesa)</td>
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<tr>
<td>PHIL 111</td>
<td>Philosophy in Literature (City, Mesa)</td>
</tr>
<tr>
<td>PHIL 112</td>
<td>Philosophy of Science (Mesa)</td>
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<tr>
<td>PHIL 125</td>
<td>Philosophy of Women in World Cultures (City, Mesa)</td>
</tr>
<tr>
<td>PHIL 130</td>
<td>Philosophy of Art and Music (Mesa)</td>
</tr>
<tr>
<td>PSYC 207</td>
<td>Psychology of Religion (Mesa)</td>
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<td>RUSS 101</td>
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<td>First/Second Course in Spanish (Accelerated) (Mesa)</td>
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<td>Second/Third/Course in Spanish (Accelerated) (Mesa)</td>
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<tr>
<td>SPAN 202</td>
<td>Fourth Course in Spanish</td>
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<tr>
<td>TAGA 101</td>
<td>First Course in Tagalog (Mesa, Miramar)</td>
</tr>
<tr>
<td>TAGA 102</td>
<td>Second Course in Tagalog (Mesa, Miramar)</td>
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<tr>
<td>TAGA 201</td>
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<tr>
<td>VIET 101</td>
<td>First Course in Vietnamese (Mesa)</td>
</tr>
<tr>
<td>VIET 102</td>
<td>Second Course in Vietnamese (Mesa)</td>
</tr>
<tr>
<td>VIET 201</td>
<td>Third Course in Vietnamese (Mesa)</td>
</tr>
<tr>
<td>* ANTH 200</td>
<td>Introduction to North American Indians (Mesa)</td>
</tr>
<tr>
<td>* ANTH 210</td>
<td>Introduction to California Indians (City, Mesa)</td>
</tr>
<tr>
<td>* ANTH 215</td>
<td>Cultures of Latin America (City, Mesa)</td>
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</table>

D2: Economics

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>ECON 120</td>
<td>Principles of Economics I</td>
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<td>ECON 121</td>
<td>Principles of Economics II</td>
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D3: Ethnic Studies

<table>
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<tbody>
<tr>
<td>* ANTH 200</td>
<td>Introduction to North American Indians (Mesa)</td>
</tr>
<tr>
<td>* ANTH 210</td>
<td>Introduction to California Indians (City, Mesa)</td>
</tr>
<tr>
<td>* ANTH 215</td>
<td>Cultures of Latin America (City, Mesa)</td>
</tr>
<tr>
<td>* BLAS 104</td>
<td>Black Psychology (City, Mesa)</td>
</tr>
<tr>
<td>* BLAS 115</td>
<td>Sociology from a Black Perspective (City)</td>
</tr>
<tr>
<td>* BLAS 116</td>
<td>Contemporary Social Problems from a Black Perspective (City, Mesa)</td>
</tr>
<tr>
<td>* BLAS 125</td>
<td>Dynamics of the Black Community (Mesa)</td>
</tr>
<tr>
<td>* BLAS 130</td>
<td>The Black Family (City, Mesa)</td>
</tr>
<tr>
<td>* BLAS 135</td>
<td>Introduction to Black Politics (City)</td>
</tr>
<tr>
<td>* BLAS 140A</td>
<td>History of the U.S., Black Perspective</td>
</tr>
<tr>
<td>* BLAS 140B</td>
<td>History of the U.S., Black Perspective</td>
</tr>
<tr>
<td>CHIC 110A</td>
<td>Introduction to Chicano Studies (City, Mesa)</td>
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<tr>
<td>CHIC 110B</td>
<td>Introduction to Chicano Studies (City, Mesa)</td>
</tr>
<tr>
<td>* CHIC 141A</td>
<td>U.S. History from a Chicano Perspective (City, Mesa)</td>
</tr>
<tr>
<td>* CHIC 141B</td>
<td>U.S. History from a Chicano Perspective (City, Mesa)</td>
</tr>
<tr>
<td>* CHIC 170</td>
<td>La Chicana (Mesa)</td>
</tr>
<tr>
<td>CHIC 201</td>
<td>Pre-Columbian Cultures of MesoAmerica (City, Mesa)</td>
</tr>
<tr>
<td>FILI 100</td>
<td>Filipino American Experience (Mesa, Miramar)</td>
</tr>
<tr>
<td>* HIST 113</td>
<td>Race in United States History (Mesa)</td>
</tr>
<tr>
<td>* HIST 123</td>
<td>U.S. History from the Asian Pacific American Perspective (Mesa)</td>
</tr>
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</table>

D4: Gender Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>* CHIC 170</td>
<td>La Chicana (Mesa)</td>
</tr>
<tr>
<td>PSYC 133</td>
<td>Psychology of Women (Mesa, Miramar)</td>
</tr>
</tbody>
</table>
D5: Geography

- GEOG 102 Cultural Geography
- GEOG 104 World Regional Geography (City, Mesa)
- GEOG 154 Introduction to Urban Geography (Mesa)

D6: History

- * BLAS 140A History of the U.S., Black Perspective
- * BLAS 140B History of the U.S., Black Perspective
- BLAS 145A Introduction to African History (City, Mesa)
- BLAS 145B Introduction to African History (City)
- * CHIC 141A U.S. History from a Chicano Perspective (City, Mesa)
- * CHIC 141B U.S. History from a Chicano Perspective (City, Mesa)
- CHIC 150 History of Mexico (City, Mesa)
- * HIST 100 World History I (City, Mesa)
- * HIST 101 World History II (City, Mesa)
- HIST 109 History of the United States I
- HIST 110 History of the United States II
- * HIST 115A History of the Americas I (City, Mesa)
- * HIST 115B History of the Americas II (City, Mesa)
- HIST 123 U. S. History from the Asian Pacific American Perspective (Mesa)
- HIST 125 History of England and the Commonwealth I (Mesa)
- HIST 126 History of England and the Commonwealth II (Mesa)
- HIST 130 The Middle East Today (Mesa)
- HIST 150 Native Americans in U.S. History (Mesa, Miramar)
- HIST 151 Native Americans in U.S. History (Mesa, Miramar)
- HIST 154 Ancient Egypt (Mesa)

D7: Interdisciplinary Social or Behavioral Science

- CHIL 101 Human Growth and Development
- CHIL 141 The Child, Family and Community
- ENGL 202 Introduction to Linguistics (City, Mesa)
- PHIL 108 Perspectives on Human Nature and Society (City, Mesa)
- PHIL 109 Issues in Social Philosophy (Mesa)

D8: Political Science, Government, and Legal Institutions

- * BLAS 135 Introduction to Black Politics (City)
- POLI 101 Introduction to Politics
- POLI 102 American Political System
- POLI 103 Comparative Politics
- POLI 140 Contemporary International Politics (City, Mesa)

D9: Psychology

- * BLAS 104 Black Psychology (City, Mesa)
- PSYC 101 General Psychology
- PSYC 121 Introduction to Child Psychology (Mesa, Miramar)
- PSYC 123 Adolescent Psychology (Mesa, Miramar)
- * PSYC 155 Introduction to Personality (City, Mesa)
- PSYC 211 Learning
- PSYC 133 Psychology of Women (Mesa, Miramar)
- * PSYC 230 Psychology of Life span Development (Mesa, Miramar)

D0: Sociology and Criminology

- * BLAS 115 Sociology from a Black Perspective (City)
- * BLAS 116 Contemporary Social Problems from a Black Perspective (City, Mesa)
- * BLAS 125 Dynamics of the Black Community (Mesa)
- * BLAS 130 The Black Family (City, Mesa)
- HIST 113 Race in United States History (Mesa)
- SOCO 101 Principles Sociology
- SOCO 110 Contemporary Social Problems
- SOCO 125 Sociology of the Family (Mesa)

AREA E. Lifelong Understanding and Self-development:

No fewer than three semester units (4-5 quarter units).

Note: A DD-214 will not clear this requirement.

- BIOL 120 The Environment of Man (Mesa)
- BIOL 135 Biology of Human Nutrition (Miramar)
- HEAL 101 Health and Life Style
- NUTR 150 Nutrition (Mesa, Miramar)
- PERG 140 Life Skills and Personal Adjustment
- PHYE 103 Aerobic Dance
- PHYE 123 Fitness Activities
- PHYE 132 Individual Conditioning
American Institutions/California Government

Students who intend to transfer may complete the American Institutions/California Government requirement with one three-unit course or a six-unit course sequence as follows:

Three-Unit Course:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>POLI 102</td>
<td>The American Political System</td>
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</tbody>
</table>

Six-Unit Sequences

<table>
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<th>Course Title</th>
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<tr>
<td>^ BLAS 140A</td>
<td>History of the U.S., Black Perspective and</td>
</tr>
<tr>
<td>^ BLAS 140B</td>
<td>History of the U.S., Black Perspective OR</td>
</tr>
<tr>
<td>^ CHIC 141A</td>
<td>U.S. History from a Chicano Perspective (City, Mesa) and</td>
</tr>
<tr>
<td>^ CHIC 141B</td>
<td>U.S. History from a Chicano Perspective (City, Mesa) OR</td>
</tr>
<tr>
<td>HIST 109</td>
<td>History of the United States I and</td>
</tr>
<tr>
<td>HIST 110</td>
<td>History of the United States II</td>
</tr>
<tr>
<td>^ HIST 115A</td>
<td>History of the Americas I (City, Mesa) and</td>
</tr>
<tr>
<td>^ HIST 115B</td>
<td>History of the Americas II (City, Mesa) OR</td>
</tr>
<tr>
<td>^ HIST 141</td>
<td>Women in United States History I (Mesa) and</td>
</tr>
<tr>
<td>^ HIST 142</td>
<td>Women in United States History II (Mesa)</td>
</tr>
</tbody>
</table>

Note: The courses selected to meet this requirement may also be used to meet the general education requirement for Social and Behavioral Sciences. If a Black Studies or Chicano Studies course is selected, it may also be used to fulfill the multicultural studies requirement. Students who select POLI 102 to satisfy the American Institutions requirement may not use this course for general education credit. If a six-unit sequence or combo is selected to fulfill the American Institutions requirement, only three units may be used for general education credit.

Students who have completed the American Institutions requirement except for the California government portion must complete one of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>^ BLAS 140B</td>
<td>History of U.S., Black Perspective</td>
</tr>
<tr>
<td>HIST 110</td>
<td>History of the United States II</td>
</tr>
</tbody>
</table>

Note: Not required for Certification.
Upon completion of this pattern of general education requirements students must petition for CSU General Education Certification in the Evaluations Office.

Students who are eligible for CSU Certification may also qualify for an Associate Degree in Liberal Arts if they have completed the San Diego Community College District requirements of: American Institutions, Multicultural Studies, Health Education 101, and two Physical Education activity courses.

Intersegmental General Education Transfer Curriculum (IGETC)

The Intersegmental General Education Transfer Curriculum (IGETC) is a general education program which community college transfer students may use to fulfill lower-division general education requirements in either the California State University or University of California system. Completion of the IGETC is not a requirement for admission to CSU or UC, nor is it the only way to fulfill lower-division GE requirements. The IGETC is recommended for students who have not made a final decision about transferring to a particular CSU or UC campus. Students may be better served by following the CSU GE requirements or those of the UC campus to which they plan to transfer.

Students pursuing majors which require extensive lower-division major preparation may not find the IGETC option to be advantageous. There are other limitations. All courses used for IGETC must be passed with a minimum grade C (C minus is not acceptable.) A credit or pass is acceptable providing either is equivalent to a grade C or better.

Please make a counseling appointment to determine the most appropriate general education program for you.

Certification: All GE requirements must be completed before IGETC can be certified. Certification must take place prior to transfer to UC and/or CSU (note exception below). The Evaluations Office will complete the certification. Petitions are available in the Counseling Department. As a general rule, the IGETC can be certified for California community college transfers who have also completed transfer units at a CSU, UC, or independent college provided that the student has completed most of the transfer units at one or more California community colleges.

Please Note: Coursework completed at a foreign college or university, that is not accredited by one of the U.S. regional accrediting agencies, cannot be used to satisfy requirements for certification.

IGETC Certification after Transfer: Students who are approaching readiness for transfer, and for "good cause", are unable to obtain a maximum of two IGETC courses, may be eligible to complete IGETC after transferring. Students must complete a petition from the Counseling Office, explicitly describe the "good cause" on the form and provide supporting documentation. The petition should be submitted with supporting documentation to the Evaluations Office. Typical situations that constitute "good cause" for not completing a maximum of two IGETC courses are: illness, unavailable or canceled courses, military service and unexpected hardships, such as family or employment problems. Partial certification is allowed only in the student's final term before transfer. See the Counseling Office on campus for detailed information.

Restrictions: A student who has been registered at a UC campus and wishes to return to the same UC campus is NOT eligible for IGETC. This restriction does not apply to students who have taken UC summer session or Extension classes only.

The IGETC may NOT be used for transfer to the following schools:

- University of California, San Diego - Revelle and Eleanor Roosevelt Colleges.

The IGETC may NOT be the appropriate option for transfer to the following schools:

- University of California, Berkeley - Colleges of Business, Chemistry, Environmental Design (Architecture), Engineering, Natural Resources.
- University of California, Davis - College of Engineering
- University of California, Irvine - Schools of Engineering, Biological Sciences, or Physical Sciences
- University of California, Riverside - College of Engineering
- University of California, Santa Barbara - College of Engineering
The IGETC is NOT recommended for students planning to attend the following schools:

- University of California, Berkeley - College of Optometry
- University of California, Los Angeles - School of Engineering and Applied Science and School of Nursing
- University of California, Riverside - College of Natural and Agricultural Sciences
- University of California, Santa Barbara - College of Creative Studies

**Advanced Placement Exams** - Acceptable scores of 3, 4, or 5 may be used to satisfy any of the courses in IGETC subject areas. An acceptable score on an English exam may be used to meet the English Composition requirement but may NOT be used to meet the Critical Thinking-English Composition and Oral Communication requirements.

**AREA 1 - English Communication**
(2-3 courses, 6-9 semester/8-12 quarter units)

**Group A: English Composition (1 course, 3 semester/4-5 quarter units)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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</thead>
<tbody>
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<td>ENGL 101</td>
<td>Reading and Composition</td>
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<tr>
<td>OR</td>
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<tr>
<td>ENGL 105</td>
<td>Composition and Literature</td>
</tr>
</tbody>
</table>

**Group B: Critical Thinking - English Composition (1 course, 3 semester/4-5 quarter units). Courses must have English Composition as a prerequisite.**

<table>
<thead>
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<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>ENGL 205</td>
<td>Critical Thinking and Intermediate Composition</td>
</tr>
<tr>
<td>PHIL 205</td>
<td>Critical Thinking and Writing in Philosophy</td>
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</table>

**Group C: Oral Communication (1 course, 3 semester/4-5 quarter units)**

<table>
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<tr>
<th>Course</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>@ SPEE 103</td>
<td>Oral Communication</td>
</tr>
<tr>
<td>@ SPEE 160</td>
<td>Argumentation</td>
</tr>
</tbody>
</table>

**AREA 2 - Mathematical Concepts And Quantitative Reasoning**
(1 course, 3 semester/4-5 quarter units) Courses must have Intermediate Algebra as a prerequisite.

<table>
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<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>BIOL 200</td>
<td>Biological Statistics (City, Mesa)</td>
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<tr>
<td>+ MATH 116</td>
<td>College and Matrix Algebra</td>
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<tr>
<td>+ MATH 119</td>
<td>Elementary Statistics</td>
</tr>
<tr>
<td>+ MATH 121</td>
<td>Basic Techniques of Applied Calculus I</td>
</tr>
<tr>
<td>+ MATH 122</td>
<td>Basic Techniques of Calculus II</td>
</tr>
<tr>
<td>+ MATH 141</td>
<td>Precalculus</td>
</tr>
<tr>
<td>+ MATH 150</td>
<td>Calculus with Analytic Geometry I</td>
</tr>
<tr>
<td>+ MATH 151</td>
<td>Calculus with Analytic Geometry II</td>
</tr>
<tr>
<td>MATH 245</td>
<td>Discrete Mathematics</td>
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<tr>
<td>MATH 252</td>
<td>Calculus with Analytic Geometry III</td>
</tr>
<tr>
<td>+ MATH 254</td>
<td>Introduction to Linear Algebra</td>
</tr>
<tr>
<td>+ MATH 255</td>
<td>Differential Equations</td>
</tr>
<tr>
<td>PSYC 258</td>
<td>Behavioral Science Statistics (City, Mesa)</td>
</tr>
</tbody>
</table>

**AREA 3 - Arts and Humanities**
(3 courses, 9 semester/12-15 quarter units) At least one course from the Arts and one from the Humanities.

**3A: Arts Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTF 100</td>
<td>Art Orientation</td>
</tr>
<tr>
<td>+ ARTF 109</td>
<td>Nineteenth and Twentieth Century Art</td>
</tr>
<tr>
<td>ARTF 110</td>
<td>Art History: Prehistoric to Gothic</td>
</tr>
<tr>
<td>ARTF 111</td>
<td>Art History: Renaissance to Modern</td>
</tr>
<tr>
<td>+ ARTF 115</td>
<td>African Art (City, Mesa)</td>
</tr>
<tr>
<td>+ ARTF 120</td>
<td>North American Indian Art (Mesa)</td>
</tr>
<tr>
<td>+ ARTF 125</td>
<td>History of Art: Survey in Far Eastern Art (Miramar)</td>
</tr>
<tr>
<td>BLAS 110</td>
<td>Afro-American Art (City, Mesa)</td>
</tr>
</tbody>
</table>
**3B: Humanities Courses:**

- BLAS 111 African Art History (Mesa)
- BLAS 120 Black Music (City, Mesa)
- DRAM 105 Introduction to Dramatic Arts
- DRAM 120 Dramatic Heritage (Miramar)
- DRAM 136 History of Canonized Theatre-Ancient Greece to Restoration (City)
- DRAM 137 History of Canonized Western Theatre-Restoration to the Present (City)
- DRAM 150 Cinema as Art & Communication I (Mesa)
- DRAM 151 Cinema as Art & Communication II (Mesa)
- MUSI 100 Introduction to Music
- MUSI 105 Music of Our Time (Mesa)
- MUSI 109 World Music
- MUSI 111 Jazz - History & Development
- MUSI 125 Music, The Arts, and Humanity (Mesa, Miramar)
- BLAS 145A Introduction to African History (City, Mesa)
- BLAS 145B Introduction to African History (City)
- BLAS 150 Black Women in Literature & the Media (City, Mesa)
- BLAS 155 Afro-American Literature (City, Mesa)
- CHIC 130 Mexican Literature in Translation (City)
- CHIC 135 Chicano Literature (City, Mesa)
- CHIC 138 Literature of La Raza in Latin America in Translation (City, Mesa)
- CHIC 210 Chicano Culture (City, Mesa)
- CHIN 102 Second Course in Mandarin Chinese (Mesa)
- ENGL 208 Introduction to Literature
- ENGL 209 Literary Approaches to Film
- ENGL 210 American Literature I
- ENGL 211 American Literature II
- ENGL 215 English Literature I: 800-1799
- ENGL 216 English Literature II: 1800-Present
- ENGL 220 Masterpieces of World Literature I: 1500 BCE - 1600 CE
- ENGL 221 Masterpieces of World Literature II: 1600 - Present
- ENGL 230 Asian American Literature (Mesa)
- ENGL 237 Women in Literature (City, Miramar)
- ENGL 240 Shakespeare (City, Mesa)
- HIST 105 Introduction to Western Civilization I
- HIST 106 Introduction to Western Civilization II
- HIST 120 Introduction to Asian Civilizations
- HIST 121 Asian Civilizations in Modern Times
- HIST 125 History of England & the Commonwealth I (Mesa)
- HUMA 101 Introduction to the Humanities I
- HUMA 102 Introduction to the Humanities II
- HUMA 103 Introduction to the New Testament (Mesa)
- HUMA 104 Introduction to the Old Testament (Mesa)
- HUMA 106 World Religions (City, Mesa)
- HUMA 201 Mythology
- JAPN 102 Second Course in Japanese (Mesa, Miramar)
- LATI 201 Third Course in Latin (Mesa)
- PHIL 102A Introduction to Philosophy: Reality & Knowledge
- PHIL 102B Introduction to Philosophy: Values
- PHIL 103 Historical Introduction to Philosophy (Mesa)
- PHIL 104A History of Western Philosophy (City, Mesa)
- PHIL 104B History of Western Philosophy (City, Mesa)
- PHIL 106 Asian Philosophy (City, Mesa)
- PHIL 107 Reflections on Human Nature
- PHIL 108 Perspectives on Human Nature and Society (City, Mesa)
- PHIL 110 Philosophy of Religion (Mesa)
- PHIL 111 Philosophy of Literature (City, Mesa)
- PHIL 112 Philosophy of Science (Mesa)
- PHIL 125 Philosophy of Women in World Cultures (City, Mesa)
- PHIL 130 Philosophy of Art and Music (Mesa)
- PSYC 207 Psychology of Religion (Mesa)
- RUSS 201 Third Course in Russian (Mesa)
- SPAN 102 Second Course in Spanish
- SPAN 201 Third Course in Spanish
- TAGA 102 Second Course in Tagalog (Mesa, Miramar)
- VIET 201 Third Course in Vietnamese (Mesa)

**AREA 4 - Social and Behavioral Sciences**

(3 courses, 9 semester/12-15 quarter units)

Courses from at least two disciplines or an interdisciplinary sequence.

**4A: Anthropology and Archaeology Courses:**

- ANTH 103 Introduction to Cultural Anthropology
- ANTH 107 Introduction to Archaeology
- ANTH 200 Introduction to North American Indians (Mesa)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 210</td>
<td>Introduction to California Indians (City, Mesa)</td>
</tr>
<tr>
<td>ANTH 215</td>
<td>Cultures of Latin America (City, Mesa)</td>
</tr>
<tr>
<td>ENGL 202</td>
<td>Introduction to Linguistics (City, Mesa)</td>
</tr>
<tr>
<td>ECON 120</td>
<td>Principles of Economics I</td>
</tr>
<tr>
<td>ECON 121</td>
<td>Principles of Economics II</td>
</tr>
<tr>
<td>BLAS 104</td>
<td>Black Psychology (City, Mesa)</td>
</tr>
<tr>
<td>BLAS 116</td>
<td>Contemporary Social Problems From a Black Perspective (City, Mesa)</td>
</tr>
<tr>
<td>BLAS 130</td>
<td>The Black Family (City, Mesa)</td>
</tr>
<tr>
<td>BLAS 135</td>
<td>Introduction to Black Politics (City)</td>
</tr>
<tr>
<td>BLAS 140A</td>
<td>History of the U.S., Black Perspectives</td>
</tr>
<tr>
<td>BLAS 140B</td>
<td>History of the U.S., Black Perspectives</td>
</tr>
<tr>
<td>BLAS 145A</td>
<td>Introduction to African History (City, Mesa)</td>
</tr>
<tr>
<td>BLAS 145B</td>
<td>Introduction to African History (City)</td>
</tr>
<tr>
<td>CHIC 110A</td>
<td>Introduction to Chicano Studies (City, Mesa)</td>
</tr>
<tr>
<td>CHIC 110B</td>
<td>Introduction to Chicano Studies (City, Mesa)</td>
</tr>
<tr>
<td>CHIC 141A</td>
<td>United States History From a Chicano Perspective (City, Mesa)</td>
</tr>
<tr>
<td>CHIC 141B</td>
<td>United States History From a Chicano Perspective (City, Mesa)</td>
</tr>
<tr>
<td>CHIC 150</td>
<td>History of Mexico (City, Mesa)</td>
</tr>
<tr>
<td>CHIC 170</td>
<td>La Chicaña (Mesa)</td>
</tr>
<tr>
<td>CHIC 201</td>
<td>Pre-Columbian Cultures of Mesoamerica (City, Mesa)</td>
</tr>
<tr>
<td>CHIC 210</td>
<td>Chicano Culture (City, Mesa)</td>
</tr>
<tr>
<td>HIST 109</td>
<td>History of the United States I</td>
</tr>
<tr>
<td>HIST 110</td>
<td>History of the United States II</td>
</tr>
<tr>
<td>HIST 113</td>
<td>Race in United States History (Mesa)</td>
</tr>
<tr>
<td>HIST 115A</td>
<td>History of the Americas I (City, Mesa)</td>
</tr>
<tr>
<td>HIST 115B</td>
<td>History of the Americas II (City, Mesa)</td>
</tr>
<tr>
<td>HIST 120</td>
<td>Introduction to Asian Civilizations</td>
</tr>
<tr>
<td>HIST 121</td>
<td>Asian Civilizations in Modern Times</td>
</tr>
<tr>
<td>HIST 123</td>
<td>U.S. History from the Asian Pacific American Perspective (Mesa)</td>
</tr>
<tr>
<td>HIST 130</td>
<td>The Middle East Today (Mesa)</td>
</tr>
<tr>
<td>HIST 150</td>
<td>Native Americans in United States History (Mesa, Miramar)</td>
</tr>
<tr>
<td>HIST 151</td>
<td>Native Americans in United States History (Mesa, Miramar)</td>
</tr>
<tr>
<td>HIST 154</td>
<td>Ancient Egypt (Mesa)</td>
</tr>
<tr>
<td>ENGL 202</td>
<td>Introduction to Linguistics (City, Mesa)</td>
</tr>
<tr>
<td>POLI 101</td>
<td>Introduction to Political Science</td>
</tr>
<tr>
<td>POLI 102</td>
<td>The American Political System</td>
</tr>
<tr>
<td>POLI 103</td>
<td>Comparative Politics</td>
</tr>
<tr>
<td>POLI 140</td>
<td>Contemporary International Politics (City, Mesa)</td>
</tr>
<tr>
<td>PSYC 101</td>
<td>General Psychology</td>
</tr>
<tr>
<td>PSYC 121</td>
<td>Introduction to Child Psychology (Mesa, Miramar)</td>
</tr>
<tr>
<td>PSYC 123</td>
<td>Adolescent Psychology (Mesa, Miramar)</td>
</tr>
<tr>
<td>PSYC 132</td>
<td>Psychology of Gender Roles (Miramar)</td>
</tr>
<tr>
<td>PSYC 155</td>
<td>Introduction to Personality (City, Mesa)</td>
</tr>
<tr>
<td>PSYC 211</td>
<td>Learning</td>
</tr>
<tr>
<td>PSYC 230</td>
<td>Psychology of Lifespan Development (Mesa, Miramar)</td>
</tr>
<tr>
<td>PSYC 245</td>
<td>Abnormal Psychology (Mesa, Miramar)</td>
</tr>
<tr>
<td>PHIL 108</td>
<td>Perspectives on Human Nature &amp; Society (City, Mesa)</td>
</tr>
<tr>
<td>PHIL 109</td>
<td>Issues in Social Philosophy (Mesa)</td>
</tr>
<tr>
<td>SOCO 101</td>
<td>Principles of Sociology</td>
</tr>
<tr>
<td>SOCO 110</td>
<td>Contemporary Social Problems</td>
</tr>
<tr>
<td>SOCO 201</td>
<td>Advanced Principles of Sociology (Mesa)</td>
</tr>
</tbody>
</table>
AREA 5 - Physical and Biological Sciences
(At least 2 courses required, 7-9 semester/9-12 quarter units). One Physical Science course and one Biological Science course; at least one must include a laboratory.

5A: Physical Science Courses:

- ASTR 101 Descriptive Astronomy
- ASTR 109 (Lab) Practice in Observing (City, Mesa)
- ASTR 111 Astronomy Laboratory (Mesa, Miramar)
- CHEM 100 Fundamentals of Chemistry
- CHEM 100L Fundamentals of Chemistry Laboratory
- CHEM 130 Introduction to Organic & Biological Chemistry
- CHEM 130L Introduction to Organic & Biological Chemistry Laboratory
+ CHEM 151 (W/Lab) Introduction to General Chemistry (Miramar)
+ CHEM 152 Introduction to General Chemistry (City, Mesa)
+ CHEM 152L Introduction to General Chemistry Laboratory (City, Mesa)
+ CHEM 200 General Chemistry I - Lecture
+ CHEM 200L General Chemistry I - Laboratory
+ CHEM 201 General Chemistry II - Lecture
+ CHEM 201L General Chemistry II - Laboratory
+ CHEM 231 Organic Chemistry I - Lecture (City, Mesa)
+ CHEM 231L Organic Chemistry I - Laboratory (City, Mesa)
+ CHEM 232L Organic Chemistry I - Lab Continued (City, Mesa)
+ CHEM 233 Organic Chemistry II (City, Mesa)
+ CHEM 233L Organic Chemistry II - Laboratory (City, Mesa)
+ CHEM 234L Organic Chemistry II Lab continued (City, Mesa)
+ GEOG 101 Physical Geography
+ GEOG 101L Physical Geography Laboratory
+ GEOG 103 Introduction to Meteorology (Mesa)
+ GEOL 100 General Geology
+ GEOL 101 General Geology Laboratory
+ PHYN 100 Survey of Physical Science
+ PHYN 101 Survey of Physical Science Laboratory
+ PHYN 120 Physical Oceanography (Miramar)
+ PHYS 100 (W/Lab) Introductory Physics (Mesa)
+ PHYS 120A General Physics I (City)
+ PHYS 120B General Physics II (City)
+ PHYS 121A General Physics Lab (City)
+ PHYS 121B General Physics Lab (City)
+ PHYS 124A (W/Lab) General Physics
+ PHYS 124B (W/Lab) General Physics
+ PHYS 195A (W/Lab) Mechanics (City, Mesa)
+ PHYS 195B (W/Lab) Electricity and Magnetism (City, Mesa)
+ PHYS 195C (W/Lab) Waves, Light, and Modern Physics (City, Mesa)

5B: Biological Science Courses:

- ANTH 102 Introduction to Physical Anthropology
- ANTH 104 Laboratory in Physical Anthropology (Mesa)
+ BIOL 100 (W/Lab) Natural History Environmental Biology (Mesa, Miramar)
- BIOL 101 Issues in Environmental Biology (City)
  Note: Lab credit will not be granted by IGETC for Biology 101.
+ BIOL 105 Principles of Biology (Miramar)
+ BIOL 106 Principles of Biology Laboratory (Miramar)
+ BIOL 107 (W/Lab) General Biology - Lecture & Laboratory (City, Mesa)
- BIOL 110 Introduction to Oceanography (City, Mesa)
- BIOL 115 Marine Biology (Lecture/Laboratory)
+ BIOL 120 The Environment of Man (Mesa)
- BIOL 130 Human Heredity
- BIOL 131 Introduction to Biotechnology (Miramar)
+ BIOL 205 General Microbiology
+ BIOL 210A Introduction to the Biological Sciences I
+ BIOL 210B Introduction to the Biological Sciences II
+ BIOL 215 (W/Lab) Introduction to Zoology
- BIOL 230 (W/Lab) Human Anatomy
- BIOL 235 (W/Lab) Human Physiology
+ BIOL 250 (W/Lab) Introduction to Botany (Mesa, Miramar)
- PSYC 260 Introduction to Physiological Psychology

Languages Other Than English
(UC Requirement Only). Students transferring to the University of California are required to demonstrate competence (proficiency) in a language other than English equal to two years of high school study. Competence may be demonstrated through the following mechanisms:
1. Completion of two years of the same foreign language of high school level work with grades of "C" or better;

2. Completion of a course (or courses) at a college or university, with a grade of "C" or better in each course. Usually, one semester of college work in a language other than English is equivalent to two years of high school work;

Any one of the following course(s) completed with a grade of "C" or better, will fulfill the requirement:

- ARAB 101 First Course in Arabic (City)
- CHIN 101 First Course in Mandarin Chinese (Mesa)
- FREN 101 First Course in French (City, Mesa)
- GER 101 First Course in German (City, Mesa)
- ITAL 101 First Course in Italian (City, Mesa)
- JAPN 101 First Course in Japanese (Mesa, Miramar)
- LATI 101 First Course in Latin (Mesa)
- RUS 101 First Course in Russian (Mesa)
- + SPAN 100 First/Second Course in Spanish (Accelerated) (Mesa)
- SPAN 101 First Course in Spanish
- TAGA 101 First Course in Tagalog (Mesa, Miramar)
- VIET 101 First Course in Vietnamese (Mesa)

3. Completion, with grades "C" or better, of two years formal schooling at the sixth grade level or higher at an institution where the language of instruction is not English. Documentation must be presented to substantiate required coursework was completed;

4. 500 or higher in the College Board Achievement tests in languages other than English;

5. 3 or higher in the College Board Advanced Placement Examinations in languages other than English;

6. 5 or higher in the International Baccalaureate Higher Level Examinations in languages other than English;

7. Completion of an achievement test administered by a community college (the San Diego Community College District does not administer this test), university or other college in a language other than English. The test will have to assess the student proficiency at the level equivalent to 2 years of high school language.

Completion of courses above proficiency level, with grades of C or better, may also be used to meet the requirement. Special Topics and Civilization courses DO NOT meet this requirement. See a counselor.

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Additional Requirements for CSU Graduation

*Note: Not required for Certification.*

American Institutions/California Government

Students who intend to transfer may complete the American Institutions/California Government requirement as follows:

sequences, six-unit combinations, or three-unit course:

Three-Unit Course:

- POLI 102 The American Political System

Six-Unit Sequences:

- ^ BLAS 140A History of the U.S., Black Perspective and
- ^ BLAS 140B History of the U.S., Black Perspective OR
- ^ CHIC 141A U.S. History from a Chicano Perspective (City, Mesa) and
- ^ CHIC 141B U.S. History from a Chicano Perspective (City, Mesa) OR
- HIST 109 History of the United States I and
- HIST 110 History of the United States II OR
- ^ HIST 115A History of the Americas I (City, Mesa) and
- ^ HIST 115B History of the Americas II (City, Mesa) OR
- HIST 141 Women in United States History I (Mesa) and
- HIST 142 Women in United States History II (Mesa) OR
- ^ HIST 150 Native Americans in U.S. History (Mesa, Miramar) and
- ^ HIST 151 Native Americans in U.S. History (Mesa, Miramar)

Six-Unit Combinations:

- ^ BLAS 140A History of the U.S., Black Perspective and
- HIST 110 History of the United States II or
- BLAS 140B History of the U.S., Black Perspective and
- HIST 109 History of the United States I
Note: The course or courses selected to meet this requirement may also be used to meet the general education requirement for Social and Behavioral Sciences. If a Black Studies or Chicano Studies course is selected, it may also be used to fulfill the multicultural studies requirement. Students who select POLI 102 to satisfy the American Institutions requirement may not use this course for general education credit. If a six-unit sequence or combo is selected to fulfill the American Institutions requirement, only three units may be used for general education credit.

Students who have completed the American Institutions requirement except for the California government portion must complete one of the following courses:

- HIST 109 History of the United States I
- HIST 123 U.S. History from the Asian Pacific American Perspective (Mesa)

American Institutions Courses:
Courses used to satisfy the CSU United States History, Constitution and the UC American History and Institutions requirement may not be counted in the Social and Behavioral Sciences Area 4.

Students who are eligible for IGETC Certification may also be awarded an Associate Degree in Liberal Arts if they have completed the San Diego Community College District requirements of American Institutions, Multicultural Studies, two Physical Education activity courses and Health Education 101.

California Articulation Number (CAN) System
The California Articulation Number (CAN) identifies some of the transferable, lower division, introductory, preparatory courses and sequences commonly taught within each academic discipline on college campuses. The system assures students that CAN courses and sequences on one participating campus will be acceptable “in lieu of” the comparable CAN course and sequence on another participating campus. For example: CAN ECON 4 on one campus will be acceptable for CAN ECON 4 on another participating campus. Each campus also maintains its own course numbering system.

California Articulation Numbers are listed after each course description in this catalog. Lists of courses and sequences from campuses participating in the CAN system are available in the Counseling Department. See a counselor for assistance. These courses are by no means the only transferable courses offered; other courses which transfer are listed in campus articulation agreements and elsewhere in this catalog.

@ Students transferring to UC are not required to satisfy the Oral Communications requirement.

+ Transfer credit may be limited by either UC or CSU, or both. Please consult a counselor for additional information.

* Course is listed in more than one area but shall not be certified in more than one area.
Is it advisable for all transfer students to follow IGETC?

No. For some students it may be advantageous to take courses which fulfill the CSU general education certification requirement or to complete the lower-division requirements of their campus of choice. Students pursuing major preparation (e.g., engineering) may find they are not well served by the IGETC option. Students who want to keep their options open before deciding exactly where they want to transfer will probably find the IGETC more useful.

Does completing IGETC ensure admission to any campus?

No. Students who complete the IGETC are not guaranteed admission to their campus of choice. However, completing the lower-division breadth/general education requirements - whether through the IGETC or the campus-specific requirements may improve a transfer applicant’s chances for admission to a competitive campus and/or program.

Are students who choose the IGETC option required to complete the entire IGETC program prior to transfer?

Yes. Students who choose the IGETC option must complete it in its entirety at the community college before they transfer. However, there can be some exceptions made to this rule in cases of hardship. Please see a counselor for guidelines and petition.

Is there a GAP requirement for IGETC coursework?

Yes. IGETC courses must be completed with a grade of "C" or better. A grade of "Credit" (for courses taken on a Credit/No-credit basis) will be accepted. Students should note, however, that there are limitations to the number of credits/no credit units that universities accept.

Can Advanced Placement test scores be applied to IGETC?

Yes. Students may earn IGETC course credit for acceptable AP scores that the faculty of the community college recognize as being equivalent to the colleges approved IGETC courses. The Miramar College counselors can provide students detailed information.

Are CSU’s certification requirements the same as UC’s?

No. Full certification for CSU must include completion of the Oral Communication requirement, area 1, Group C; UC has no oral communication requirement. CSU also allows transferring students to complete its US History Constitution, and American Ideals graduation requirement at the community college; this requirement is not a part of the IGETC.

Full certification for UC must include satisfaction of the foreign language proficiency requirement. Consult with a Miramar College counselor for information about fulfilling this requirement.

Are all students eligible for IGETC?

No. Students who began at a UC campus and who intend to transfer back to the same campus cannot use IGETC - some UC campuses do not allow students who began at another UC campus to use IGETC (this restriction does not apply to students who have enrolled in UC summer session or Extension classes only). Students who began at CSU and are transferring back to CSU must take more than half of their units at a California community college in order to use IGETC.

Are there any exceptions to who will accept the IGETC?

Yes. UC Berkeley’s School of Business Administration and two colleges-Revell and Roosevelt-at UC San Diego will not accept IGETC. Students following the IGETC and planning to transfer to UC San Diego will have to be affiliated with Muir, Marshall, or Warren colleges. See IGETC Advisement for UC Bound Transfers on the Internet at: http://www.ucop.edu/pathways/inforctr/at/atplan_igetc.html

Can coursework completed at regionally accredited institutions, including out-of-state and independent colleges, be included among the courses a community college recognizes to certify student completion of IGETC?

Yes. A community college can include among the courses it recognizes as meeting IGETC specifications coursework completed at these institutions if the coursework is deemed by the faculty of that California community college to be equivalent to coursework on the approved IGETC course list of that community college.

Can a course be used to satisfy more than one subject area?

No
Can a course be used both to satisfy an IGETC requirement and to fulfill a major requirement?

Yes. UC will allow courses to count toward both the IGETC and the majors. CSU campus limitations on the "double-counting" of general education courses toward the major are not changed by the IGETC.

Do students become automatically certified for IGETC when they complete the last of the required courses?

No. Students should go to the Miramar College Counseling office or Evaluations during the semester prior to their last term of attendance and fill out a request for IGETC certification. Consult the class schedule or Counseling for deadline information.
IGETC Advisement for UC-Bound Transfers

This information is intended to serve as a guideline for advising UC-bound transfers about the IGETC option. Since each student’s circumstances differ, a Miramar counselor will help you to evaluate whether using the IGETC makes good sense based on your background and choice of campus and major. The listing below specifies the various majors, by campus, that have substantial lower-division prerequisites that may make the IGETC option inappropriate for transfers to follow.

It is strongly recommended that students review the UC "Answers for Transfers" web site at: http://ucop.edu/pathways

BERKELEY - Colleges of Engineering, Environmental Design, Chemistry and Natural Resources, and the Haas School of Business have extensive, prescribed major prerequisites. Moreover, the IGETC requirements generally exceed the college-specific breadth requirements (but do not supersede the major requirements). In general, IGETC is not appropriate preparation for majors in these colleges

DAVIS - All majors at Davis honor the IGETC. However, completing the IGETC should take second place to preparing for the major.

IRVINE - Students entering any major can use the IGETC, but should consider lower-division degree requirements and major preparation when planning their programs. Students entering majors that require specific or substantial preparation, such as science majors, may use the IGETC but need to give priority to completion of lower-division preparation courses for the major.

LOS ANGELES - The Henry Samuel School of Engineering and Applied Science does not accept the IGETC.

MERCED - The Division of Engineering and Natural Science does not recommend IGETC.

RIVERSIDE - The Marlan and Rosemary Bourns College of Engineering and the College of Natural and Agricultural Sciences do not accept the IGETC, although any courses taken to satisfy the IGETC may be applied toward the college’s breadth pattern. UCR’s College of Humanities, Arts, and Social Sciences accepts the IGETC.

SAN DIEGO - The IGETC is accepted at John Muir, Earl Warren and Thurgood Marshall colleges only. Students completing the IGETC are welcomed at Eleanor Roosevelt and Revelle colleges; however, they must also fulfill the specific general education requirements of those colleges. At UCSD, all majors are available to students in each college, so students who choose the IGETC will not be restricted in their choice of major, unless the major is impacted.

SANTA BARBARA - In general, IGETC is not appropriate preparation for transfer into the College of Engineering (and the B.A. Computer Science major in the College of Letters and Science). Engineering majors may use IGETC only to substitute for lower-division breadth/general education requirements. These students will be required to complete at least two upper-division general education courses after transfer.

University of California, San Diego Transfer Admission Guarantee (UCSD-TAG)

Students are encouraged to attend a TAG workshop and consult a counselor for specific transfer requirements.

The TAG program guarantees admission to the student’s choice of college, i.e., John Muir, Thurgood Marshall, Earl Warren, Revelle, and Eleanor Roosevelt, and to the term of transfer. Under the terms of the agreement, students are required to plan their programs with a counselor at City, Mesa, or Miramar College and comply with all TAG provisions. The following requirements must be satisfied:

1. Earn 60 UC-transferable semester units (or 90 UC-transferable quarter units). At least 28 of the last 36 transferable semester units must be taken at a TAG participating community college.

2. Achieve a UC transferable GPA of 2.8 or better.

3. Satisfy the UCSD core requirements for general education: with a minimum of a “C” grade. Requirements include one year (two-semesters) of a transferable sequence in (a) writing, (b) the humanities, (c) the social sciences, (d) a foreign language, and (e) calculus or a natural science. A list of course sequences for each of the five areas that will satisfy the UCSD general education core requirements follows.
TAG/UCSD Core Curriculum

TAG Core Requirements
Select a one-year (two-course) sequence from one department in each of the following areas:

The following information is based on 2001-2002 articulation agreements and/or course offerings and is subject to change. Please contact the Counseling Department for updates.

A. Writing: ENGL 101 and 205 OR 105 and 205

B. Humanities: Choose a two-course sequence from one subject:
1. Art-Fine Art 109 and 111, OR 110 and 111, OR 113 (Mesa) and 115 (City, Mesa)
2. Black Studies 145A (City, Mesa) and 145B (City)
3. Chicano Studies 135 (City, Mesa) and 138 (City, Mesa)
4. Dramatic Arts 136 (City) and 137 (City), OR 150 (Mesa) and 151 (Mesa)
5. English 210 and 211, OR 215 and 216, OR 220 and 221.
6. History 100 (City, Mesa) and 101 (City, Mesa), OR 105 and 106, OR 115A (City, Mesa) and 115B (City, Mesa), OR 120 and 121, OR 125 (Mesa) and 126 (Mesa)
7. Humanities 101 and 102
8. Music 100 and one of the following: 105 (Mesa) or 109, or 111
9. Philosophy 102A and 102B, OR 104A (City, Mesa) and 104B (City, Mesa), OR 103 (Mesa) and 106 (City, Mesa)

C. Foreign Language: Complete two-semesters in the same language:
1. AMSL 100 (City, Mesa), 101 (City,Mesa), 200 (City,Mesa), 201 (City, Mesa)
2. ARAB 101 (City), 102 (City)
3. CHIN 101 (Mesa), 102 (Mesa), 201 (Mesa)
4. FREN 101 (City,Mesa), 102 (City,Mesa), 201 (City,Mesa), 202 (City, Mesa)
5. GERM 101 (City, Mesa), 102 (City, Mesa), 201 (City, Mesa)
6. ITAL 101 (City, Mesa), 102 (City, Mesa), 201 (City, Mesa)
7. JAPN 101 (Mesa, Miramar), 102 (Mesa, Miramar), 201 (Mesa), 202 (Mesa)
8. LATI 101 (Mesa), 102 (Mesa), 201 (Mesa)
9. RUSS 101 (Mesa), 102 (Mesa), 201 (Mesa)
10. SPAN 100 (Mesa), 101, 102, 199 (Mesa), 201, 202
11. TAGA 101 (Mesa), 102 (Mesa)
12. VIET 101 (Mesa), 102 (Mesa)

Note: If your national language of instruction is anything other than English, please contact the Admissions Office at UCSD.

D. Social Science: Complete a two-course sequence from one subject:
1. ANTH 102 and 103, OR 102 OR 103 and one of the following: 107 or 200 (Mesa) or 210 (City, Mesa), or 215 (City, Mesa)
2. BLAS 140A and 140B
3. CHIC 110A (City, Mesa) and CHIC 110B (City, Mesa), OR 141A (City, Mesa) and 141B (City, Mesa)
4. ECON 120 and 121
5. HIST 109 and 110, OR 109 and 123 (Mesa) OR 150 (Mesa, Miramar) and 151 (Mesa, Miramar)
6. POLI 101, 102, 103, or 140 (any two)
7. PSYC 101 and one of the following: 121 (Mesa,Miramar), 123 (Mesa,Miramar), 155 (City, Mesa), 211, 245 (Mesa, Miramar), or 260
8. SOCO 101, 110, or 201 (Mesa) (any two)

E. Calculus or Natural Science: Complete a two-course sequence from one subject:
1. BIOL 105 (Miramar) and 106 (Miramar), (see Note) OR 107, (City, Mesa) OR 210A, and one of the following: 205, 210B, 215, 230, 235, or 250 (Mesa, Miramar)

Note: Biology 106 laboratory is required by the San Diego Community College District as a prerequisite to selected 200 level biology courses.

2. CHEM 200 and 201
3. MATH 121 and 122, OR 150 and 151, OR 151 and 252

Note: Students who elect to take the Calculus course sequence in Area E must complete an approved Natural Science course within their program to meet district general education graduation requirements for the Transfer Studies AA degree.
4. PHYS 120A (City) and 120B (City), OR 124A and 124B, OR 195A (City, Mesa) and 195B, (City, Mesa) OR 195C (City, Mesa)

Note: students who select options 1, 2, or 4 above must also satisfy the UC transfer math requirement.

Students who complete TAG core requirements may also qualify for an Associate Degree in Liberal Arts if they have completed the San Diego Community College District requirements of: American Institutions, Multicultural Studies, Health Education 101, and two Physical Education activity courses.

Transfer Pattern - Other

College or University-Specific General Education Requirements

This pattern is intended for students who are planning to:

1.0 enter high unit majors such as Engineering, Computer Science, or any of the other sciences

Course preparation for the science and engineering majors generally consists of a high number of units; therefore, it may be more beneficial for these students to follow the general education pattern suggested by the Major department. Students need to check the catalog of the college to which they intend to transfer and consult a Miramar counselor.

2.0 follow the breadth requirements in the catalog of the institution they wish to attend

Some Majors do not accept the IGETC and suggest you follow the general education requirements in their catalog. In addition, an institution's breadth requirements may require fewer units in their own general education pattern than CSU Breadth, IGETC, or TAG. This information can be found in the transfer college's catalog. Students should consult a Miramar Counselor.

3.0 transfer to a private or out-of-state institution

The requirements for these institutions can vary greatly. In some cases, Miramar College has general education breadth agreements with private institutions. Students are advised to check the catalog of the college to which they intend to transfer and consult a Miramar counselor.

In addition to the state-supported colleges and universities in California, there are many outstanding independent institutions in the state. For detailed information about these, students should check out www.aiccumentor.org. There are also many colleges, both private and public, located throughout the United States, to which Miramar students can transfer. Each of these institutions has its own unique requirements for admission. In order to determine eligibility, students should obtain a copy of the school catalog and consult with their counselor.

Miramar College maintains transfer articulation agreements with a number of independent colleges and universities. Students may check with the Miramar Counseling and Transfer Centers for the latest articulation information or refer to those published in this guide.

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. Virtually all colleges and universities give full credit for general education courses and for most other courses designed by the community college for transfer.
Filing Periods for College Applications

**UNIVERSITY OF CALIFORNIA**

*Most UC's accept applications for the Fall quarter only.

UCSD accepts students for admission Fall quarter only (TAG students accepted Fall only).

**CALIFORNIA STATE UNIVERSITY**

*Most CSU's accept applications for the Fall and Spring semesters only.

SDSU accepts students for admission Fall semester only (effective Fall 2004).

**PRIVATE COLLEGES AND UNIVERSITIES**

Application filing periods vary by college. Check with each college or university Admissions Office.

### Filing Periods for Financial Aid and Scholarships

Financial Aid priority filing period for the Free Application for Federal Student Aid (FAFSA) is **January 1 to March 2.**

All priority applicants will be considered for: Federal Pell grant, Federal Perkins Loan, Federal Supplemental Grant (SEOG), Federal Work Study, Board of Governors Grant, Cal Grants A, B, and C, and Federal Stafford and PLUS loans.

Applicants processed after the priority deadline will at least be considered for: Federal Pell Grant, Board of Governors Grant, Federal Stafford and PLUS loans, and Cal Grants. Scholarship application deadlines are by scholarship. Be sure to check each scholarship application for the deadline date. Start checking for scholarships at least one year ahead of time to get an idea of what is usually available and deadline dates. **Work closely with financial aid office at your transfer university**

Consider beginning your scholarship search using "FastWeb". FastWeb allows you to utilize the Internet to help find scholarships. It matches each student's background with eligibility requirements for scholarships from around the country. [http://www.fastweb.org](http://www.fastweb.org)
Transfer Admission Guarantee Programs

TRANSFER ADMISSION GUARANTEE (TAG) TO UCSD

This program is a contractual agreement between the San Diego Community College District and UCSD. UCSD guarantees admission upon completion of all program requirements within a specified time period. Students are required to obtain a 2.8 UC transfer GPA. Although TAG guarantees admission to UCSD and to the college of your choice, it does not guarantee admission to a particular major. Students must see a counselor to sign the TAG contract. Student may transfer fall, winter or spring quarter. Attendance at a TAG informational workshop is required for students interested in this program.

UNIVERSITYLINK PROGRAM TO UCSD

The Link program is a partnership with UCSD, Miramar College, and participating high schools in the San Diego Unified School District. This program helps prepare students for transfer to UCSD. Instruction, academic counseling and activities help facilitate a timely and smooth transfer from high school, to Miramar and UCSD. The goal of the Link program is to enable students who were not eligible for admissions to UCSD from high school to complete their first two years of a coursework at Miramar and receive guaranteed admission to UCSD. Students are required to earn 60 UC transfer units, maintain a 2.8 UC transfer GPA, and meet UC eligibility requirements. Students must sign a contract prior to the end of the fall semester immediately following their graduation from high school. See a counselor for details.

TRANSFER STUDIES DEGREE (TSD) to SAN DIEGO STATE UNIVERSITY

The SDSU TSD program was developed to provide San Diego and Imperial County community college transfer students with the opportunity to lock in major impact criteria at the time of signing the agreement (to eliminate the "moving target" for changing criteria). Students are required to complete a two-year degree in Transfer Studies, in addition to meeting the GPA and major preparation requirements. Students must see a counselor to sign the SDSU TSD contract. Under the TSD program, students can transfer during the fall and spring semesters.

TRANSFER ADMISSION AGREEMENT (TAA) UC DAVIS:

Students transferring to the University of California Davis may be eligible to complete the coursework for the Transfer Admissions Agreement program. Completion of this program guarantees admission to UC Davis and the major. Only a limited number of students will be accepted in the program during each admission period; therefore, students who are interested in participating in this program must see a counselor early.

GUARANTEED ADMISSION FOR TRANSFER ENTRY (GATE) TO UC SANTA CRUZ

Students transferring to the UC Santa Cruz may be eligible to complete the coursework for the GATE program. Completion of this program guarantees admission to UC Santa Cruz but not admission to the major. Only a limited number of students will be accepted in this program during each admission period; therefore students who are interested in participating in this program must see a counselor.
Useful Transfer Websites

ARTICULATION
http://www.assist.org

CALIFORNIA STATE UNIVERSITIES (CSU)
OVERVIEW: http://www.calstate.edu
ONLINE APPLICATION http://www.csumentor.edu
OPEN/CLOSED STATUS http://calstate.edu/tier3A+R/appstat.html

UNIVERSITY OF CALIFORNIA (UC)
OVERVIEW http://www.ucop.edu
ONLINE APPLICATION http://www.ucop.edu/pathways
TRANSFER RESOURCE http://www.ucop.edu/pathways/infoctr/at/welcome.html

INDEPENDENT COLLEGES AND UNIVERSITIES
http://www.aiccu.edu/
Requirements for Transfer Students

Students wishing to transfer to a four-year university need to fulfill one of the general education patterns listed on the previous pages of the Transfer Planning Guide. In addition, they should complete the courses required as preparation for their intended major and sufficient elective semester units to total 60 transferable units. They should also consult with a counselor to insure they do not have any academic deficiencies from high school that may prevent their admission into the four-year institution.

The following pages present some of the more common Major Preparation courses required by local universities. Most students planning to transfer will also have fulfilled the requirements for an Associate degree in Transfer Studies as well. Completion of this degree is highly recommended because some institutions' policies require an associate degree for transfer students. Completion of this degree, including courses that prepare students for admission to their selected major is required for the San Diego State University Transfer Admission Guarantee (TAG) program. Students wishing to earn a Transfer Studies Degree and transfer to a four-year college or university should complete the core shown below.

Associate in Arts Degree:
Transfer Studies with Preparation for the Major

Students wishing to earn an Associate Degree and planning to transfer to a four-year college or university should complete the following:

<table>
<thead>
<tr>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer Studies General Education Pattern: (CSU GE, IGETC, TAG, Other)</td>
</tr>
<tr>
<td>Preparation for the Major (select major preparation courses from transfer information listed below)</td>
</tr>
<tr>
<td>Math and English Competency (met in transfer GE)</td>
</tr>
<tr>
<td>General Education associate degree requirements (usually met in transfer GE- courses page: 61)</td>
</tr>
<tr>
<td>Electives</td>
</tr>
</tbody>
</table>

Total Units Required = 60
Preparation for the Major:

In order to be admitted to a major at a four-year institution, students must first complete a core of specific courses commonly called Major Preparation. Completion of these courses does not always guarantee admission to the program but greatly improves student’s opportunities.

The preparations for the majors presented on the following pages were prepared for catalog publication deadlines and may not accurately reflect recent changes or total course requirements for particular programs or schools. For complete, current, official articulation information, students are urged to check with Project ASSIST, www.assist.org or contact the Counseling Department or Transfer Center on campus.

Note: Some courses are not currently offered at Miramar, but are offered at City and/or Mesa Colleges. Please see a counselor.

ACCOUNTING

- **San Diego State University**

  Business Administration, Accounting, B.S.: Accounting 116A, 116B; Business 140; Computer & Information Systems 181; Economics 120, 121; Mathematics 119; Mathematics 116 and 121 or 150.

- **California State University, San Marcos**

  Business Administration, B.S.: Accounting 116A, 116B; Business 140; Economics 120, 121; Mathematics 121; Psychology 101 or Sociology 101.

- **University of San Diego**

  Bachelor of Accountancy: Accounting 116A and Business 140; and Computer and Information Sciences 181; Economics 120 and 121; Mathematics 150 or 121.

ADMINISTRATION OF JUSTICE

- **San Diego State University**

  Criminal Justice, B.S.: Administration of Justice 101; Political Science 102; Sociology 101, 110; Mathematics 119 or Psychology 258.

ANTHROPOLOGY

- **San Diego State University**


- **University of California, San Diego**

  Anthropology, B.A.: Anthropology 102 and 103; Mathematics 119 or Psychology 258 or Psychology 255.

  Archaeology, B.A.: Mathematics 119 or Psychology 255 or Psychology 258.

ART-FINE ART

- **San Diego State University**

  Graphic Design


- **California State University, San Marcos**


- **University of California, San Diego**

  Visual Arts, Computing and the Arts, B.A.: Music 100; Fine Art 109; Mathematics 150, 151 or 121, 122; Computer Information Science 190.

BIOLOGY

- **California State University, San Marcos**

  Biological Sciences, B.S.: Biology 210A, 210B; Chemistry 150, 201, 211L; Mathematics 150 and 151; Physics 124A, 124B.

- **San Diego State University**

  Biology, B.S., Applied Arts and Sciences, General: Biology 200, 210A, 210B or 215 and 250; Chemistry 200, 200L, 201, 201L, 231, 231L; Mathematics 121, 122; Physics 120A, 120B, 121A, 121B or Physics 124A, 124B.
Biology, B.S., Applied Arts and Sciences, Bioengineering: Biology 210A, 210B or 215 and 250; Chemistry 200, 201, 231, 231L; Engineering 200, 216, 260; Mathematics 150, 151, 252; Physics 195A, 195B, 195C.

For preparation for transfer into the Generic Nursing Program:

Nursing, B.S.: Must earn a “C” or better in each course except where otherwise specified. English 101 or 105, 205; Biology 105 and 106 or 107; Biology 205 and 230 (must earn a grade of “B” or higher); Chemistry 130, 130L; Mathematics 119; Psychology 101, Psychology 230 or Child Development 101; Sociology 101, Speech 103; Humanities 12 units. This does not require completion of an associate degree in nursing. Pre-nursing students and registered nurses with an Associate Degree in Nursing who wish to transfer to San Diego State University’s School of Nursing, must earn a grade of “B” or higher in Biology 230 and 235. National League for Nursing examination scores, transfer credits, and demonstration of clinical competency are criteria used to individualize the baccalaureate curriculum for associate degree applicants. American Institutions 3 units.

<table>
<thead>
<tr>
<th>University of California, San Diego</th>
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</thead>
<tbody>
<tr>
<td>Biology, General Biology, B.S.: Select three courses from: Biology 210A, 210A and 210B, Chemistry 100 and 100L, 130 and 130L, 200 and 200L, 201 and 201L, Physics 195A, 195B, 195C; Select three courses (at least one from Calculus) from: Mathematics 121, 122, 150, 151, 252, Philosophy 101; Computer and Information Science 192; Mathematics 119. Bioengineering, B.S. Biotechnology: Mathematics 150, 151, 252, 254, 255; Physics 195A, B,C; Computer and Information Sciences 192; Biology 210A; Chemistry 200, 200L, 201, 201L.</td>
</tr>
</tbody>
</table>

BUSINESS ADMINISTRATION

<table>
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<tr>
<th>San Diego State University</th>
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</thead>
<tbody>
<tr>
<td>Information and Decision Systems, B.S.: Accounting 116A, 116B; Business 119, 140; Computer &amp; Information Sciences 181; Economics 120, 121; Mathematics 116 and 121 or 150; Mathematics 119. International Business, Latin American Emphasis, B.A.: Accounting 116A, 116B; Economics 120, 121; Business 140; Computer &amp; Information Sciences 181; History 115A, 115B; Mathematics 119; Spanish 202, 210, 211. Business Administration, Management or Marketing, B.S.: Accounting 116A, 116B; Business 119, 140; Computer &amp; Information Sciences 181; Economics 120, 121; Mathematics 119; Mathematics 116 and 121 or 150.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>California State University, San Marcos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Administration, B.S.: Accounting 116A, 116B; Economics 120, 121; Mathematics 121; Psychology 101 or Sociology 101.</td>
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<tr>
<th>University of California, San Diego</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics B.A.: Economics 120 and 121; Mathematics 150, 151 and 252 or Mathematics 121 and 122. Economics Management Science, B.S.: Accounting 116A or 116B; Mathematics 150, 151, 252 and 254; Economics 120 and 121.</td>
</tr>
</tbody>
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<tr>
<th>University of San Diego</th>
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<tbody>
<tr>
<td>Bachelor of Business Administration, B.A.: Business 140; Accounting 116A and 116B; Computer and Information Sciences 181; Economics 120 and 121; Mathematics 150 or 121.</td>
</tr>
</tbody>
</table>

CHEMISTRY

<table>
<thead>
<tr>
<th>California State University, San Marcos</th>
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</thead>
<tbody>
<tr>
<td>Chemistry, B.S.: Mathematics 107, 107L, 150, 151, 252; Biology 210A, 210B; Chemistry 200, 200L, 201, 201L.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>San Diego State University</th>
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<tr>
<th>University of California, San Diego</th>
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</thead>
</table>
CHILD DEVELOPMENT

- **California State University, San Marcos**
  
  **Human Development, B.A.:** Anthropology 103; Psychology 101; Psychology 258 or Mathematics 119

- **San Diego State University**
  
  **Child and Family Development, B.S.:** Biology 105 and 106 or 107; Child Development 101*, 141, 151, 160; Psychology 101, 135; Child Development 111, 121, 131 (any two); Mathematics 119 or Psychology 258; Sociology 101. *acceptable only if Psychology 101 or Sociology 101 taken prior to transfer.

- **University of California, San Diego**
  
  **Human Development, B.A.:** Mathematics 119 or Psychology 258; Biology 210A, 210B; one formal skills course from: Mathematics 121, 122 or 150, 151, 252 or Philosophy 101; Computer and Information Science 192; two courses from: Anthropology 102, 103 or Sociology 101.

COMMUNICATION

- **California State University, San Marcos**
  
  **Communication, B.A.:** Speech 160; Mathematics 119.

- **San Diego State University**
  
  **Communication, Communicative Disorders, B.A.:** Psychology 101, 260; Mathematics 119 or Psychology 258.

- **University of California, San Diego**
  
  See a counselor for further information.

COMPUTER AND INFORMATION SCIENCES

- **California State University, San Marcos**
  
  **Computer Science, B.S.:** Computer and Information Sciences 192L or Mathematics 108, 108L; Mathematics 107, 107L, 150, 151, 254; Physics 195A, 195B.

- **San Diego State University**
  
  **Business Administration, Information Decision Systems, B.S.:** Accounting 116A, 116B; Business 119, 140; Computer and Information Sciences 181; Economics 120, 121; Mathematics 116 and 121 or 150, 119 or Psychology 258 or Biology 200.

  **Computer Science, B.S.:** Mathematics 107, 107L, 108, 108L, 237, 237L, 150, 151, 245, 254; Mathematics 119; and select one of three options: Biology 210A, 210B or (215 and 250) or Chemistry 200 and 200L, 201 and 201L; or Physics 195A, 195B, 196A, 196B.

- **University of California, San Diego**
  
  **CSE, Computer Science, B.A:** Mathematics 237, 237L, 150, 151, 245, 252, 254, 255; Physics 195A,B,C and 196A,B,C; Computer Information Sciences 190.

  **CSE, Computer Science, B.S.**
  
  Mathematics 237, 237L, 150, 151, 245, 252, 254, 255; Physics 195A,B,C and 196A,B,C.

  **ECE, Computer Engineering, B.S.:** Mathematics 237, 237L, 150, 151, 245, 252, 254, 255; Physics 195A,B,C and 196A,B,C; Computer Information Sciences 190.

  **Mathematics, Computer Science, B.A.:** Mathematics 237, 237L, 150, 151, 245, 252, 254, 255; Computer Information Sciences 190.

  **Applied Mathematics, Scientific Programming, B.A.:** Mathematics 150, 151, 245, 252, 254, 255; Computer Information Science 190 or 192; Physics 195A,B,C or Physics 120A, 121A, 120B, 121B.

  *Note: Some courses are not currently offered at Miramar, but are offered at City and/or Mesa Colleges. Please see a counselor.*

ECONOMICS

- **San Diego State University**
  
  **Economics, B.A.:** Accounting 116A; Economics 120, 121; Mathematics 116, and 120 or 150; Computer and Information Sciences 181; Mathematics 119.

- **University of California, San Diego**
  
  **Economics, B.A.:** Mathematics 120 and 122 or 150, 151 and 252; Economics 120, 121.
ENGLISH

- California State University, San Marcos

  Literature and Writing Studies, B.A.: English 101, or 205; Select one course from: English 105, 220, 221.

- San Diego State University

  Communication, Journalism Major, B.A.: Economics 120; Journalism 200; Political Science 101, 102.
  Comparative Literature, B.A.: English 101 or 105 and 220, 221.
  Comparative Literature for the Single Subject Teaching Credential, B.A.: English 101 or 105, 202, 205, 220, 221, 249 or 245 or 247 or 253 or 254; Dramatic Arts 120 or Humanities 201; one sequence from English 210 and 211 or 215 and 216 and Radio and Television 200 or Journalism 200.
  English, B.A.: English 101 or 105; English 215 and 216; three units from English 208, 220 and 221; three units from English 210, 211, 245, 249 or 247 or 253 or 254.
  English, Single Subject Teaching Credential, B.A.: English 101 or 105, 202; English 210 and 211 or 215 and 216; English 245 or 247 or 249 or 253 or 254; English 208, 220 or 221; Humanities 201. Radio and Television 200 or Drama 120.

- University of California, San Diego

  All UCSD Literature majors must enroll in at least one upper division literature course in a secondary language, e.g., French, German, Italian, Latin, Russian and Spanish. Proficiency in a second language is recommended prior to transfer. See a counselor for further information.

  Literature, Primary Concentration in Literatures in English, B.A.: English 215 and 216; Black Studies 155; Chicano Studies 135; third semester foreign language competency.

  Literature, Literature/Writing, B.A.: English 215 and 216; 210 and 211; Black Studies 155; Chicano Studies 135; History 155. third semester foreign language competency.

GEOGRAPHY

- San Diego State University


HISTORY

- California State University, San Marcos

  History, B.A.: Select a 6-unit sequence from: History 105, 106 or 109, 110 or 120, 121 or 450, 151. Select one course from: History 113, 165, 175 or 250. Select 6 units in one area from: Literature, Political Science, Economics, Philosophy, Sociology, Anthropology or the Arts. English 101 or 105.

- San Diego State University


- University of California, San Diego

  History, B.A.: History 109 and 110 or History 113 or Black Studies 140A or Black Studies 140B and Chicano Studies 110B or Chicano Studies 141B.

HUMANITIES

- San Diego State University

  Humanities, B.A.: History 100, 101; Humanities 101; three units from: English 208, 220, 221, Humanities 201, Philosophy 103; Humanities 106.

PRE-ENGINEERING

- San Diego State University

  Aerospace Engineering, B.S.: Chemistry 200, 200L; Engineering 151, 200, 210, 250, 260; Mathematics 150, 151, 252, 255; Physics 195A,B,C and 196A,B,C.
  Civil Engineering, B.S.: Chemistry 200, 200L; Engineering 200, 210, 250, 260; Mathematics 150, 151, 252; Physics 195A,B,C, 196A,B,C.
Mechanical Engineering, B.S.: Chemistry 200, 200L; Engineering 200, 210, 250, 260; Mathematics 150, 151, 252; Physics 195A, B, C; 196A, B, C; Mathematics 107, 107L or Engineering 115.

University of California, San Diego

UCSD offers engineering degrees in three departments, Applied Mechanics and Engineering Science (AMES); Computer Science and Engineering (CSE); and Engineering and Computer Engineering (ECE). Acceptance in these programs is based on performance in the major preparation core; see a counselor for further information.

MAE, Aerospace, B.S.; Engineering Science, B.S.; Mechanical Engineering, B.S.: Chemistry 200, 200L, 201, 201L; Engineering 151, 210; Mathematics 150, 151, 252, 254 and 255; Physics 195A, B, C and 196A, B, C; Computer Information Sciences 192 or Engineering 115.

CENG, Chemical Engineering, B.S.: Chemistry 200, 200L, 201, 201L, 231, 231L, 251; Mathematics 150, 151, 252, 254 and 255; Physics 195A, B, C and 196A, B, C; Computer Information Sciences 192 or Engineering 115.


ECE, Engineering Physics, B.S.: Chemistry 200, 200L; Mathematics 150, 151, 252 254 and 255; Physics 195A, B, C and 196A, B, C; Computer Information Sciences 192 or Engineering 115.

Structural Engineering, B.S.: Chemistry 200, 200L; Mathematics 150, 151, 252, 254 and 255; Physics 195A, B, C, 196A, B, C; Computer Information Sciences 192; Chemistry 200.

MATHEMATICS

California State University, San Marcos

Mathematics, B.S.: Mathematics 150, 151, 252, 107, 107L; select two course from the following: Biology 210A, 210B; Chemistry 200, 200L; Computer and Information Sciences 192.

San Diego State University


University of California, San Diego


Mathematics/Secondary Education B.A.: Mathematics 150, 151, 252, 254, 255; Engineering 115 or Computer Information Sciences 192 or 190.

MUSIC

California State University, San Marcos

Visual and Performing Arts’ Music, B.A.: Music 150A, 100; two semesters of Music 190, 201, or 202; two semesters of Music 252 or 253A.

San Diego State University

Theater, General, B.A.: Dramatic Arts 134 (City) or Speech 101; Dramatic Arts 120 Miramar, 132 (City), 133A, B or 201 (Mesa), 123 (City), 101 or 130 (Mesa) or 132 (City).

University of California, San Diego

Computing in the Arts, B.A.: Music 100, 150A, 268A, 268B; Computer and Information Science 109; Mathematics 151, 152 or 121, 122.

PHYSICAL EDUCATION

San Diego State University

Health Science, Emphasis in Community Health Education, B.S.: Biology 205, 230; Chemistry 100, 100L or 130, 130L; Health Education 101; Nutrition 150; Psychology 101, 258; Sociology 101; Speech 103.

Kinesiology, Pre-Physical Therapy, B.S.: Biology 210A, 230; Chemistry 200, 200L; Mathematics 119
or Psychology 258; Physics 120A, 121A, 120B, 121B or 124A, 124B; Psychology 101; Sociology 101; Speech 103.

POLITICAL SCIENCE

- California State University, San Marcos
  Political Science, B.A.: Political Science 102 and Mathematics 119.

- San Diego State University
  Political Science, B.A.: Political Science 101, 102, 103; Biology 200 or Mathematics 119 or Psychology 258.
  Third semester foreign language competency required.

- University of California, San Diego
  Political Science, B.A.: Political Science 102, 103, 140.

PSYCHOLOGY

- California State University, San Marcos

- San Diego State University
  Gerontology, B.A.: Biology 107 or 105, 106; Health Education 101; Psychology 101; Psychology 135 or Child Development 141; Sociology 110; Human Services 101.

- University of California, San Diego
  Psychology, B.A.: Three courses from: Biology 210A (or 210A and 210B), Psychology 260, Chemistry 100, 100L or 200, 200L or 201, 201L or 130, 130L or 160, 160L, Physics 120A, 121A, 120B, 121B, or 195A, 195B, 195C. Three formal skills courses (at least one must be calculus) from Mathematics 121 and 122 or 150, 151 and 252 or Philosophy 101; one computer programming course from: Computer Information Systems 190 or 192 or Engineering 115 (Mesa) and Mathematics 119 or Psychology 255 (Mesa) or 258.
  Note: Not all labs will transfer. See a counselor for information.

SOCIOLOGY

- California State University- San Marcos
  Sociology, B.A.: Sociology 101; Mathematics 119; Child Development 141.

- San Diego State University
  Sociology, B.A.: Sociology 101 and 110; Psychology 258 or Mathematics 119.

- University of California, San Diego
  Sociology, B.A.: Sociology 101 and 110 or 201; Psychology 255.

SPANISH

- California State University, San Marcos
  Spanish, B.A.: Spanish 101, 102, 201, 202, 210, 211.

- San Diego State University
  Spanish, B.A.: Spanish 101, 102, 201, 202, 210, 211.

Teacher Education Preparation

Teacher Education credentialing requirements are currently under review at the State level. Please contact the Counseling Department, Transfer Center, or www.assist.org for current information.
Degree Curricula and Certificate Programs
### Administration of Justice

<table>
<thead>
<tr>
<th>Certificate of Completion:</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrections Officer Core Course</td>
<td>16</td>
</tr>
<tr>
<td>Juvenile Counselor</td>
<td>14</td>
</tr>
<tr>
<td>Law Enforcement Specialist</td>
<td></td>
</tr>
<tr>
<td>Master at Arms</td>
<td>10.5</td>
</tr>
<tr>
<td>P.C. 832 Laws of Arrest</td>
<td>2.5</td>
</tr>
<tr>
<td>P.C. 832 Laws of Arrest - Firearms</td>
<td>1</td>
</tr>
<tr>
<td>Probation Officer Basic</td>
<td></td>
</tr>
<tr>
<td>Correction Core Courses</td>
<td>8</td>
</tr>
<tr>
<td>Weapons and Safety Training for Probation Officers</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Certificate of Achievement:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Traffic Accident Investigation Certification</td>
<td>36.5</td>
</tr>
<tr>
<td>Certified Correctional Training for Deputy Sheriffs</td>
<td>31.5</td>
</tr>
<tr>
<td>Contemporary Police Technologies</td>
<td>36.5</td>
</tr>
<tr>
<td>Correctional Technologies</td>
<td>31</td>
</tr>
<tr>
<td>Court Support Services Specialization</td>
<td>24</td>
</tr>
<tr>
<td>Investigations Specialization</td>
<td>27</td>
</tr>
<tr>
<td>Law Enforcement Specialization</td>
<td>30</td>
</tr>
<tr>
<td>Law Enforcement Supervision</td>
<td>30.5</td>
</tr>
<tr>
<td>Law Enforcement Technologies</td>
<td>27.5</td>
</tr>
<tr>
<td>Reserve Peace Officer Technical Skills</td>
<td>41</td>
</tr>
<tr>
<td>Specialized Instructor Training</td>
<td>29</td>
</tr>
<tr>
<td>Technical Achievement for Field Training Officers</td>
<td>32</td>
</tr>
<tr>
<td>Technical Proficiency for Advanced Officers</td>
<td>32.5</td>
</tr>
<tr>
<td>Technical Skills for Corrections Deputies</td>
<td>19.5</td>
</tr>
</tbody>
</table>

### Associate in Science Degree:

<table>
<thead>
<tr>
<th>Program</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contemporary Police Technologies</td>
<td>36.5 *</td>
</tr>
<tr>
<td>Correctional Technologies</td>
<td>34 *</td>
</tr>
<tr>
<td>Court Support Services Specialization</td>
<td>30 *</td>
</tr>
<tr>
<td>Investigations Specialization</td>
<td>33 *</td>
</tr>
<tr>
<td>Law Enforcement Specialization</td>
<td>33 *</td>
</tr>
</tbody>
</table>

*and electives as needed to meet minimum of 60 units required for the degree.
Description
The Administration of Justice program provides professional education and training for students in Law Enforcement, Investigations, Court Support Services, Contemporary Police Technologies, and Correctional Technologies. Specialized seminars and intensified course offerings are designed to meet all current training mandated and prescribed by law. The program offers weekend, morning, afternoon, and night classes to accommodate student needs. Students who meet the academic requirements may obtain an Associate in Science Degree or select from a variety of certificates of completion and certificates of achievement. The program is also designed to enhance general knowledge of the Administration of Justice System for the community at large.

Program Learning Outcomes
The Administration of Justice program offers course work for students seeking employment with local, state, or federal law enforcement agencies, correctional agencies, court services, private and industrial security fields. The programs are designed to meet lower division transfer requirements and entry-level job requirements. Students specializing in law enforcement and investigations are taught in accordance with the learning domain areas developed by the Commission on Peace Officer Standards and Training (POST). Short-term course work is available for students needing specialized training as a condition of employment. Public safety personnel currently employed can benefit from specialized course work and continuing educational opportunities for professional advancement.

Faculty
Steve Lickiss  
Office A-224C  
Telephone (619) 388-7455

Career Options
The following list is a small sample of the variety of city, county, state, and federal career options available for the administration of justice major.

Arson Investigator
Border Patrol officer
Communications Officer
Community Service Officer
Correctional Officer
Court Clerk
Crime Prevention Specialist
Customs Agent
Deputy Sheriff
Evidence Technician
Law Enforcement Master at Arms
Marshal
Parking Enforcement
Parole Officer
Police Officer
Postal Inspector
Private and Industrial Security Officer
Probation Officer

Academic Programs
The associate degree, certificates of completion, and certificates of achievement listed require completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Course Requirements for Transfer Students
Students who plan to transfer to a four-year college or university and earn a bachelor’s degree in this discipline need to follow the preparation for the major on page 111 in the Transfer Studies Degree section of the catalog.

Certificates of Completion: Administration of Justice

Corrections Officer Core Course*

Courses: Units
ADJU 323, S.T.C. Certified Corrections Officer Core Course.......................................16
Total Units = 16

Juvenile Counselor*

Courses: Units
ADJU 346, Juvenile Counselor Basic Core Course.................................................10
ADJU 350, Weapons and Safety Training for Probation Officers .............................. 4
Total Units = 14

Law Enforcement Master at Arms*

Provides military personnel with basic law enforcement skills.

Course: Units
ADJU 385, Law Enforcement Specialist/Master at Arms........................................10.5
Total Units = 10.5

P.C. 832 Laws of Arrest*

Courses: Units
ADJU 356A, 832 PC Laws of Arrest ..................................2.5
Total Units = 2.5
### Administration of Justice

#### P.C. 832 Laws of Arrest - Firearms*

<table>
<thead>
<tr>
<th>Courses:</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 356B, 832 PC Firearms</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Units = 1**

#### Probation Officer Basic Correction Core Courses*

<table>
<thead>
<tr>
<th>Courses:</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ADJU 328, Correctional Officer Basic Core Courses</td>
<td>8</td>
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</tbody>
</table>

**Total Units = 8**

#### Weapons and Safety Training for Probation Officers*

<table>
<thead>
<tr>
<th>Courses:</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 350, Weapons and Safety Training for Probation Officers</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Units = 4**

*These are department awards in recognition of information on the transcript and does not imply that a graduation requirement has been met.

#### Certificates of Achievement: Administration of Justice

Certificates available for the working professional or pre-employment student.

##### Advanced Traffic Accident Investigation Certification

<table>
<thead>
<tr>
<th>Courses Required for the Major:</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 381, P.O.S.T. Certified Regional Academy Module 1</td>
<td>15</td>
</tr>
<tr>
<td>ADJU 382, P.O.S.T. Certified Regional Academy Module 2</td>
<td>5</td>
</tr>
<tr>
<td>ADJU 383, P.O.S.T. Certified Regional Academy Module 3</td>
<td>2.5</td>
</tr>
<tr>
<td>ADJU 384, P.O.S.T. Certified Regional Academy Module 4</td>
<td>5</td>
</tr>
</tbody>
</table>

**Select nine units from the following:**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 304, 305, 307, 322, 332</td>
<td>9</td>
</tr>
</tbody>
</table>

**Total Units = 36.5**

#### Contemporary Police Technologies

##### Courses Required for the Major: Units

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 381, P.O.S.T. Certified Regional Academy Module 1</td>
<td>15</td>
</tr>
<tr>
<td>ADJU 382, P.O.S.T. Certified Regional Academy Module 2</td>
<td>5</td>
</tr>
<tr>
<td>ADJU 383, P.O.S.T. Certified Regional Academy Module 3</td>
<td>2.5</td>
</tr>
<tr>
<td>ADJU 384, P.O.S.T. Certified Regional Academy Module 4</td>
<td>5</td>
</tr>
</tbody>
</table>

**Select nine units from the following:**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 160, 161, 180, 181, 182, 201</td>
<td>9</td>
</tr>
</tbody>
</table>

**Total Units = 36.5**

#### Correctional Technologies

##### Courses Required for the Major: Units

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 101, Introduction to Administration of Justice</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 102, Criminal Law I</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 161, Juvenile Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 162, Criminal Investigation</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 167, Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 323, S.T.C. Certified Corrections Officer Core Course</td>
<td>16</td>
</tr>
</tbody>
</table>

**Total Units = 31**

#### Court Support Services Specialization

##### Courses Required for the Major: Units

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 101, Introduction to Administration of Justice</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 102, Criminal Law I</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 106, Diversity and Community Relations</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 157A, Court Support and Administration I</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 157B, Court Support and Administration II</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 160, Criminal Law II</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 201, California Criminal Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 210, Evidence</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units = 24**

#### Investigations Specialization

##### Courses Required for the Major: Units

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJU 101, Introduction to Administration of Justice</td>
<td>3</td>
</tr>
</tbody>
</table>
### Law Enforcement Specialization

**Units**

- **ADJU 102, Criminal Law I** ................. 3
- **ADJU 106, Diversity and Community Relations** .......... 3
- **ADJU 160, Criminal Law II** .................. 3
- **ADJU 161, Juvenile Procedures** ................. 3
- **ADJU 162, Criminal Investigation** ............... 3
- **ADJU 167, Report Writing** ..................... 3
- **ADJU 201, California Criminal Procedures** ....... 3

**Total Units = 27**

### Law Enforcement Supervision

**Units**

- **ADJU 101, Introduction to Administration of Justice** ........ 3
- **ADJU 102, Criminal Law I** ................. 3
- **ADJU 106, Diversity and Community Relations** .......... 3
- **ADJU 140, Patent Procedures** .................. 3
- **ADJU 160, Criminal Law II** .................. 3
- **ADJU 161, Juvenile Procedures** ................. 3
- **ADJU 162, Criminal Investigation** ............... 3
- **ADJU 167, Report Writing** ..................... 3
- **ADJU 201, California Criminal Procedures** ....... 3

**Total Units = 30**

### Law Enforcement Technologies

**Units**

- **ADJU 381, P.O.S.T. Certified Regional Academy Module 1** .......... 15
- **ADJU 382, P.O.S.T. Certified Regional Academy Module 2** .......... 5
- **ADJU 383, P.O.S.T. Certified Regional Academy Module 3** .......... 2.5
- **ADJU 384, P.O.S.T. Certified Regional Academy Module 4** .......... 5

**Select three units from the following:**

- **ADJU 312, 361** .................. 3

**Total Units = 30.5**

### Reserve Peace Officer Technical Skills

**Units**

- **ADJU 371, P.O.S.T. Certified Regular Basic Course Module Format, Level I** .......... 18.5
- **ADJU 372, P.O.S.T. Certified Regular Basic Course Module Format, Level II** .......... 12
- **ADJU 373, P.O.S.T. Certified Regular Basic Course Module Format, Level III, P.C. 832 (Part 1)** .......... 3.5
- **ADJU 374, P.O.S.T. Certified Regular Basic Course Module Format, Level III, P.C. 832 (Part 2)** .......... 7

**Total Units = 41**

### Specialized Instructor Training

**Units**

- **ADJU 381, P.O.S.T. Certified Regional Academy Module 1** .......... 15
- **ADJU 382, P.O.S.T. Certified Regional Academy Module 2** .......... 5
- **ADJU 383, P.O.S.T. Certified Regional Academy Module 3** .......... 2.5
- **ADJU 384, P.O.S.T. Certified Regional Academy Module 4** .......... 5
- **ADJU 333, Certified Firearms Instructor Course** .......... 1.5

**Total Units = 29**

### Technical Achievement for Field Training Officers

**Units**

- **ADJU 381, P.O.S.T. Certified Regional Academy Module 1** .......... 15
- **ADJU 382, P.O.S.T. Certified Regional Academy Module 2** .......... 5
- **ADJU 383, P.O.S.T. Certified Regional Academy Module 3** .......... 2.5
- **ADJU 384, P.O.S.T. Certified Regional Academy Module 4** .......... 5
- **ADJU 314, Officer Safety and Field Tactics** .......... 1.5
- **ADJU 327, Advanced Patrol Strategies** .......... 1.5
- **ADJU 330, P.O.S.T. Certified Field Training Officer Course** .......... 1.5

**Total Units = 32**

### Technical Proficiency for Advanced Officers

**Units**

- **ADJU 381, P.O.S.T. Certified Regional Academy Module 1** .......... 15
- **ADJU 382, P.O.S.T. Certified Regional Academy Module 2** .......... 5
ADJU 383, P.O.S.T. Certified Regional Academy Module 3 ......................... 2.5
ADJU 384, P.O.S.T. Certified Regional Academy Module 4 .......................... 5
Select five units from the following:
ADJU 300, 320, 331, 335, 343, 344, 348, 361 .................. 5
Total Units = 32.5

Technical Skills for Corrections Deputies

Courses: Units
ADJU 323, S.T.C. Certified Corrections Officer Core Course ...................... 16
ADJU 336, S.T.C. Advanced Arrest and Firearms Training ......................... 0.5
Select three units from the following:
ADJU 325, 326, 338, 352 ............. 3
Total Units = 19.5

Associate in Science Degrees: Administration of Justice

Contemporary Police Technologies

Courses Required for the Major: Units
ADJU 381, P.O.S.T. Certified Regional Academy Module 1 ....................... 15
ADJU 382, P.O.S.T. Certified Regional Academy Module 2 ....................... 5
ADJU 383, P.O.S.T. Certified Regional Academy Module 3 ....................... 2.5
ADJU 384, P.O.S.T. Certified Regional Academy Module 4 ....................... 5
Select nine units from the following:
ADJU 160, 161, 180, 181, 182, 201, 210, 230 ..................... 9
Total Units = 36.5

Correctional Technologies

Courses Required for the Major: Units
ADJU 101, Introduction to Administration of Justice ......................... 3
ADJU 102, Criminal Law I ........................................... 3
ADJU 106, Diversity and Community Relations ......................... 3
ADJU 157A, Court Support and Administration I ......................... 3
ADJU 157B, Court Support and Administration II ..................... 3
ADJU 201, California Criminal Procedures ......................... 3
ADJU 210, Evidence ................................................. 3
Select nine units from the following:
ADJU 140, 147, 148, 149, 162, 180, 181, 182, 220, 230, 356A/B ..... 9
Total Units = 33

Court Support Services Specialization

Courses Required for the Major: Units
ADJU 101, Introduction to Administration of Justice ......................... 3
ADJU 102, Criminal Law I ........................................... 3
ADJU 106, Diversity and Community Relations ......................... 3
ADJU 160, Criminal Law II ........................................ 3
ADJU 161, Juvenile Procedures ..................................... 3
ADJU 162, Criminal Investigation ................................ 3
ADJU 167, Report Writing ........................................... 3
ADJU 201, California Criminal Procedures ......................... 3
ADJU 210, Evidence ................................................. 3
ADJU 220, Law Enforcement Forensics ......................... 3
Select three units from the following:
ADJU 140, 147, 148, 149, 162, 180, 181, 182, 220, 230, 356A/B ..... 9
Total Units = 33

Investigations Specialization

Courses Required for the Major: Units
ADJU 101, Introduction to Administration of Justice ......................... 3
ADJU 102, Criminal Law I ........................................... 3
ADJU 106, Diversity and Community Relations ......................... 3
ADJU 160, Criminal Law II ........................................ 3
ADJU 161, Juvenile Procedures ..................................... 3
ADJU 162, Criminal Investigation ................................ 3
ADJU 167, Report Writing ........................................... 3
ADJU 201, California Criminal Procedures ......................... 3
ADJU 210, Evidence ................................................. 3
ADJU 220, Law Enforcement Forensics ......................... 3
Select three units from the following:
ADJU 140, 147, 148, 149, 162, 180, 181, 182, 220, 230, 356A/B ..... 9
Total Units = 33

Law Enforcement Specialization

Courses Required for the Major: Units
ADJU 101, Introduction to Administration of Justice ......................... 3
ADJU 102, Criminal Law I ........................................... 3
ADJU 106, Diversity and Community Relations ......................... 3
ADJU 160, Criminal Law II ........................................ 3
ADJU 161, Juvenile Procedures ..................................... 3
ADJU 162, Criminal Investigation ................................ 3
ADJU 167, Report Writing ........................................... 3
ADJU 201, California Criminal Procedures ......................... 3
ADJU 210, Evidence ................................................. 3
Select nine units from the following:
ADJU 140, 147, 148, 149, 162, 180, 181, 182, 220, 230, 356A/B ..... 9
Total Units = 33

For graduation requirements see Requirements for the Associate Degree on page 58.
Electives as needed to meet minimum of 60 units required for the degree:

Recommended Electives: Any of the above listed

Program Learning Outcomes

Miramar College maintains a Federal Aviation Administration (FAA), Federal Aviation Regulation (FAR) Part 147 approved Aviation Maintenance Technician School with both an Airframe and Powerplant rating. This program is structured to allow the student to complete a required minimum of 1900 hours of instruction in four semesters. Each student is required to complete the minimum hours of instruction to qualify for these ratings. Students completing the Airframe and/or Powerplant program will be qualified to take the examinations given by the FAA.

To obtain a Mechanic's Certificate with Airframe or Powerplant Ratings, arrangements are made with the local FAA District Office to take the appropriate written examinations.

Additionally, students pursuing an interest in Aviation Maintenance Technology not resulting in an FAA rating may receive a Certificate of Completion or an Associate in Science Degree in Aviation General Studies or Private Pilot Studies.

Credit For Aviation Maintenance Technician - Airframe or Powerplant Rating

Pending Aviation Department review and approval, students who hold a valid FAA Airframe or Powerplant Rating may apply to the Aviation Maintenance Technology Department for a maximum of 35 units. The units granted with a grade of CR will be posted to the student's transcript upon completion of the remaining Associate in Science Degree requirements.

Credit for Military Schools and Experience

Pending Aviation Department review and approval, students who have completed military technical schools recognized by the FAA may apply to the Aviation Maintenance Technology Department for a maximum of 15 units.

Credit for Work Experience

Students who have valid work experience in the aviation industry may challenge a maximum of 15 units. (See Challenge Procedure.)
Articulation agreements are in effect between Miramar College and San Jose State University, California State University Los Angeles, Embry-Riddle Aeronautical Institute, Southern Illinois University, and Northrup Rice Institute of Aviation and Technology. Check with the counseling department or the Transfer Center for details.

**Aviation Maintenance Technology**

**Certificate of Achievement or Associate in Science Degree:**

**Aviation Maintenance Technology - Airframe & Powerplant**

Qualifies the student for the FAA Airframe and Powerplant exam.

**Courses Required for the Major:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Courses Required for the Major:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Curriculum</td>
</tr>
<tr>
<td></td>
<td>AVIM 100, General Aviation Technology Theory ..........12</td>
</tr>
<tr>
<td></td>
<td>AVIM 100S, General Aviation Maintenance Technology Practices ..................................... 4</td>
</tr>
<tr>
<td></td>
<td>AVIM 109D, Aircraft Fire Protection and Digital Logic ................................................ 1</td>
</tr>
<tr>
<td></td>
<td>AVIM 120, Basic D.C. Electronics Theory ................. 3</td>
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<tr>
<td></td>
<td>AVIM 121A, Basic D.C. Electronics Lab .......................................... 1.5</td>
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<tr>
<td></td>
<td>Airframe Curriculum</td>
</tr>
<tr>
<td></td>
<td>AVIM 103A, Aircraft Wood, Fabric, Finishing and Composite Structures .................................... 3</td>
</tr>
<tr>
<td></td>
<td>AVIM 104A, Applied Aircraft Wood, Fabric Finishing and Composite Structures ..................................... 1.5</td>
</tr>
<tr>
<td></td>
<td>AVIM 103B, Aircraft Welding and Sheetmetal Structures ................................................ 3</td>
</tr>
<tr>
<td></td>
<td>AVIM 104B, Applied Aircraft Welding and Sheetmetal Structures ................................ 1.5</td>
</tr>
<tr>
<td></td>
<td>AVIM 103C, Aircraft Hydraulic Systems ................... 3</td>
</tr>
<tr>
<td></td>
<td>AVIM 103D, Aircraft Landing Gear Systems ................. 3</td>
</tr>
<tr>
<td></td>
<td>AVIM 104D, Applied Aircraft Landing Gear Systems .......... 1</td>
</tr>
<tr>
<td></td>
<td>AVIM 105A, Aircraft Cabin Atmosphere Control ........... 1.5</td>
</tr>
<tr>
<td></td>
<td>AVIM 106A, Aircraft Cabin Atmosphere Control ....... 0.5</td>
</tr>
<tr>
<td></td>
<td>AVIM 105B, Aircraft Assembly Rigging and Inspection ................................................ 1.5</td>
</tr>
<tr>
<td></td>
<td>AVIM 106B, Applied Aircraft Assembly Rigging and Inspection ............................................. 1</td>
</tr>
<tr>
<td></td>
<td>AVIM 109A, Airframe Electrical Systems ................. 3</td>
</tr>
<tr>
<td></td>
<td>AVIM 110A, Airframe Electrical Systems Lab ............ 1</td>
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<tr>
<td></td>
<td>Powerplant Curriculum</td>
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<tr>
<td></td>
<td>AVIM 107B, Turbine Engines .......... 3</td>
</tr>
<tr>
<td></td>
<td>AVIM 108B, Turbine Engines Laboratory .......... 1</td>
</tr>
<tr>
<td></td>
<td>AVIM 109B, Powerplant Ignition Systems .......... 2</td>
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<tr>
<td></td>
<td>AVIM 110B, Applied Powerplant Ignition Systems ....... 0.5</td>
</tr>
<tr>
<td></td>
<td>AVIM 109C, Powerplant Electrical Systems .......... 3</td>
</tr>
<tr>
<td></td>
<td>AVIM 110C, Powerplant Electrical Systems Laboratory ...................................................... 0.5</td>
</tr>
<tr>
<td></td>
<td>AVIM 111C, Reciprocating Engines I ................. 3</td>
</tr>
<tr>
<td></td>
<td>AVIM 112C, Reciprocating Engines I Laboratory ....... 2</td>
</tr>
<tr>
<td></td>
<td>AVIM 111D, Reciprocating Engines II ................. 3</td>
</tr>
<tr>
<td></td>
<td>AVIM 112D, Reciprocating Engines II Laboratory ...... 1</td>
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<td></td>
<td>AVIM 241, Aircraft Propeller Systems Lecture .......... 3</td>
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<td></td>
<td>AVIM 242, Aircraft Propeller Systems Laboratory ...... 1</td>
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<tr>
<td></td>
<td>AVIM 249, Induction and Fuel Metering ................ 3</td>
</tr>
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<td></td>
<td>AVIM 250, Induction and Fuel Metering Lab ............ 1</td>
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<td></td>
<td>AVIM 253, Lubricating, Cooling, and Exhaust .......... 3</td>
</tr>
<tr>
<td></td>
<td>AVIM 254, Lubricating, Cooling, and Exhaust Lab .... 1</td>
</tr>
</tbody>
</table>

**Total Units = 78**

For graduation requirements see **Requirements for the Associate Degree** on page 58.

E lectives as needed to meet minimum of 60 units required for the degree.

Students who intend to transfer to a four-year institution should select courses for their General Education requirements that are on the CSU General Education Breadth List.

**Certificate of Achievement or Associate in Science Degree:**

**Aviation Maintenance Technology - Airframe**

Qualifies the student for the FAA Airframe exam.

**Courses Required for the Major:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Courses Required for the Major:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Curriculum</td>
</tr>
<tr>
<td></td>
<td>AVIM 100, General Aviation Technology Theory ..........12</td>
</tr>
<tr>
<td></td>
<td>AVIM 100S, General Aviation Maintenance Technology Practices ..................................... 4</td>
</tr>
<tr>
<td></td>
<td>AVIM 109D, Aircraft Fire Protection and Digital Logic ................................................ 1</td>
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<td></td>
<td>AVIM 120, Basic D.C. Electronics Theory ................. 3</td>
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<td>AVIM 121A, Basic D.C. Electronics Lab .......................................... 1.5</td>
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<td>Airframe Curriculum</td>
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<tr>
<td></td>
<td>AVIM 103A, Aircraft Wood, Fabric, Finishing and Composite Structures .................................... 3</td>
</tr>
<tr>
<td></td>
<td>AVIM 104A, Applied Aircraft Wood, Fabric Finishing and Composite Structures ..................................... 1.5</td>
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<tr>
<td></td>
<td>AVIM 103B, Aircraft Welding and Sheetmetal Structures ................................................ 3</td>
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<tr>
<td></td>
<td>AVIM 104B, Applied Aircraft Welding and Sheetmetal Structures ................................ 1.5</td>
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<tr>
<td></td>
<td>AVIM 103C, Aircraft Hydraulic Systems ................... 3</td>
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<td>AVIM 103D, Aircraft Landing Gear Systems ................. 3</td>
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<tr>
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<td>AVIM 104D, Applied Aircraft Landing Gear Systems .......... 1</td>
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<td>AVIM 105A, Aircraft Cabin Atmosphere Control ........... 1.5</td>
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<tr>
<td></td>
<td>AVIM 106A, Aircraft Cabin Atmosphere Control ....... 0.5</td>
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<td>AVIM 105B, Aircraft Assembly Rigging and Inspection ................................................ 1.5</td>
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<tr>
<td></td>
<td>AVIM 106B, Applied Aircraft Assembly Rigging and Inspection ............................................. 1</td>
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<tr>
<td></td>
<td>AVIM 109A, Airframe Electrical Systems ................. 3</td>
</tr>
<tr>
<td></td>
<td>AVIM 110A, Airframe Electrical Systems Lab ............ 1</td>
</tr>
<tr>
<td></td>
<td>Powerplant Curriculum</td>
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<tr>
<td></td>
<td>AVIM 107B, Turbine Engines .......... 3</td>
</tr>
<tr>
<td></td>
<td>AVIM 104A, Applied Aircraft Wood, Fabric Finishing and Composite Structures ..................................... 1.5</td>
</tr>
<tr>
<td></td>
<td>AVIM 103B, Aircraft Welding and Sheetmetal Structures ................................................ 3</td>
</tr>
<tr>
<td></td>
<td>AVIM 104B, Applied Aircraft Welding and Sheetmetal Structures ................................ 1.5</td>
</tr>
<tr>
<td></td>
<td>AVIM 103C, Aircraft Hydraulic Systems ................... 3</td>
</tr>
</tbody>
</table>
AVIM 104C, Applied Aircraft Hydraulic Systems .......... 1
AVIM 103D, Aircraft Landing Gear Systems .................. 3
AVIM 104D, Applied Aircraft Landing Gear Systems ........ 1
AVIM 105A, Aircraft Cabin Atmosphere Control ............ 1.5
AVIM 106A, Aircraft Cabin Atmosphere Control .......... 0.5
AVIM 105B, Aircraft Assembly Rigging and Inspection .................. 1.5
AVIM 106B, Applied Aircraft Assembly Rigging and Inspection ................................................. 1
AVIM 109A, Airframe Electrical Systems .................... 3
AVIM 110A, Airframe Electrical Systems Lab ............... 1
Total Units = 47

For graduation requirements see Requirements for the Associate Degree on page 58.
Electives as needed to meet minimum of 60 units required for the degree.

Students who intend to transfer to a four-year institution should select courses for their General Education requirements that are on the CSU General Education Breadth List.

Certificate of Achievement or Associate in Science Degree:
Aviation Maintenance Technology - Powerplant
Qualifies the student for the FAA Powerplant exam.

Courses Required for the Major:
General Curriculum
AVIM 100, General Aviation Technology Theory ..........12
AVIM 100S, General Aviation Maintenance Technology Practices ............................................. 4
AVIM 109D, Aircraft Fire Protection and Digital Logic ........................................... 1
AVIM 120, Basic D.C. Electronics Theory ..................... 3
AVIM 121A, Basic D.C. Electronics Lab ............... 1.5

Powerplant Curriculum
AVIM 107B, Turbine Engines .................................. 3
AVIM 108B, Turbine Engines Laboratory ..................... 1
AVIM 109B, Powerplant Ignition Systems ............... 2
AVIM 110B, Applied Powerplant Ignition Systems . 0.5
AVIM 109C, Powerplant Electrical Systems ............. 3
AVIM 110C, Powerplant Electrical Systems Laboratory ............................................. 0.5
AVIM 111C, Reciprocating Engines I ......................... 3
AVIM 112C, Reciprocating Engines II Laboratory ....... 2
AVIM 111D, Reciprocating Engines II ....................... 3
AVIM 112D, Reciprocating Engines II Laboratory ....... 1
AVIM 241, Aircraft Propeller Systems Lecture ........ 3
AVIM 242, Aircraft Propeller Systems Laboratory ........ 1
AVIM 249, Induction and Fuel Metering ..................... 3
AVIM 250, Induction and Fuel Metering Lab .............. 1
AVIM 253, Lubricating, Cooling, and Exhaust .......... 3
AVIM 254, Lubricating, Cooling, and Exhaust Lab ....... 1
Total Units = 52.5

For graduation requirements see Requirements for the Associate Degree on page 58.
Electives as needed to meet minimum of 60 units required for the degree:

Aviation Maintenance Technology - Aviation General Studies
Prepares the student for employment in the aviation industry. This program does not meet the FAA minimum requirements for the Airframe or Powerplant rating. This is also an ideal program for students who already have their Mechanic’s Certificate but wish to obtain a Degree.

Certificate of Achievement or Associate in Science Degree:
Aviation General Studies
Select a minimum of 18 units for a certificate, or degree major requirements from the following list of courses. Prerequisites may be waived depending on the student’s background.

Courses Required for the Major: Units
Select a minimum of 18 units from the following list of courses:
General Curriculum
AVIM 100, General Aviation Technology Theory 
AVIM 100S, General Aviation Maintenance Technology Practices 
AVIM 109B, Powerplant Ignition Systems 
Airframe Curriculum
AVIM 103A, Aircraft Wood, Fabric, Finishing and Composite Structures 
AVIM 104A, Applied Aircraft Wood, Fabric Finishing and Composite Structures 
AVIM 103B, Aircraft Welding and Sheetmetal Structures 
AVIM 104B, Applied Aircraft Welding and Sheetmetal Structures 
AVIM 103D, Aircraft Landing Gear Systems 
AVIM 104D, Applied Aircraft Landing Gear Systems 
AVIM 104C, Applied Aircraft Hydraulic Systems 
AVIM 105A, Aircraft Cabin Atmosphere Control 
AVIM 106A, Aircraft Cabin Atmosphere Control
AVIM 105B, Aircraft Assembly Rigging and Inspection  
AVIM 106B, Applied Aircraft Assembly Rigging and Inspection  
AVIM 109A, Airframe Electrical Systems  
AVIM 110A, Airframe Electrical Systems Lab  

**Powerplant Curriculum**  
AVIM 107B, Turbine Engine  
AVIM 108B, Turbine Engine Laboratory  
AVIM 109B, Powerplant Ignition Systems  
AVIM 110B, Applied Powerplant Ignition Systems  
AVIM 109C, Powerplant Electrical Systems  
AVIM 110C, Powerplant Electrical Systems Laboratory  
AVIM 111C, Reciprocating Engines I  
AVIM 112C, Reciprocating Engines I Laboratory  
AVIM 111D, Reciprocating Engines II  
AVIM 112D, Reciprocating Engines II Laboratory  
AVIM 241, Aircraft Propeller Systems Lecture  
AVIM 242, Aircraft Propeller Systems Laboratory  
AVIM 249, Induction and Fuel Metering  
AVIM 250, Induction and Fuel Metering Lab  
AVIM 253, Lubricating, Cooling, and Exhaust  
AVIM 254, Lubricating, Cooling, and Exhaust Lab  

**Total Units = 18**

For graduation requirements, see Requirements for the Associate Degree on page 58.

**Electives as needed to meet minimum of 60 units required for the degree:**

**Aviation Maintenance Technology - Private Pilot Studies**

Qualifies the student for the FAA Private Pilot exam, with an emphasis on aircraft maintenance as it applies to the pilot.

**Certificate of Achievement or Associate in Science Degree:**

**Private Pilot Studies**

<table>
<thead>
<tr>
<th>Courses Required for the Major</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVIA 130, Aviation Weather and Physiology</td>
<td>3</td>
</tr>
<tr>
<td>AVIA 140, Private Pilot Aeronautical Instruction</td>
<td>3</td>
</tr>
<tr>
<td>AVIM 100, General Aviation Technology Theory</td>
<td>12</td>
</tr>
</tbody>
</table>

**Total Units = 18**

For graduation requirements, see Requirements for the Associate Degree on page 58.

**Electives as needed to meet minimum of 60 units required for the degree:**

Students who intend to transfer to a four-year institution should select courses for their General Education requirements that are on the CSU General Education Breadth List.

**Recommended Electives:**

Aviation 105, 200, 210; Aviation Maintenance Technology 075, 100S, 105B, 106B, 111D, 112D.

**Aviation Operations**

**Program Learning Outcomes**

Miramar College maintains a Federal Aviation Administration (FAA), Federal Aviation Regulation (FAR), Part 141 approved Pilot Ground School. Students arrange for their own flight instruction. Individuals desiring a career as a pilot may advance from Student Pilot, through the Private, Commercial, and Flight Instructor certificate/ratings to their first pilot employment while earning an Associate's degree in Aviation, and/or Flight Operations. Individuals interested only in recreational flying have high quality ground training at a low cost. Students satisfactorily completing Aviation Operations 130 and 140 will be qualified to take the FAA Private Pilot knowledge examination. Those who have satisfactorily completed Aviation Operations 130 and 210 are qualified to take the Instrument Pilot knowledge exam. Satisfactory completion of Aviation Operations 130 and 200 qualifies individuals to take the Commercial Pilot exam. The fundamentals of Instruction and Certified Flight Instructor knowledge exams may be taken after satisfactory completion of Aviation Operations 260.

The Associate of Science degree in Aviation Management prepares individuals for careers in aviation ground operations. Students take basic pilot courses to be able to interface with flight personnel, in addition to the aviation management, business and economics courses. Having a Bachelor's degree greatly enhances career opportunities. Most Aviation Management majors will continue their education for a BS in Aviation Management. Many pilots earn a dual degree in Flight Operations and Aviation Management, before continuing their education towards a BS in Aviation Management degree.

**Credit For Pilot Certificates**

Pending Aviation Department review and approval, students having a pilots certificate may challenge up to two of the following courses: Aviation Operations 140, 200, 210, and 260. See college challenge procedures.

**Articulation agreements are in effect between Miramar College and San Jose State University,**
California State University Los Angeles, Embry-Riddle Aeronautical Institute, and Northrup Rice Institute of Aviation and Technology. Check with the counseling department or the Transfer Center for details.

Certificate of Achievement or Associate in Science Degree:

Aviation Operations - Management
Prepares students for employment in non-flying positions in the aviation industry.

Courses Required for the Major Units
AVIA 105, Introduction to Aviation and Aerospace ... 3
AVIA 120, Aviation Management .................. 3
AVIA 130, Aviation Weather and Physiology ........ 3
AVIA 140, Private Pilot Aeronautical Instruction .... 3
BUSE 100, Introduction to Business ................. 3
BUSE 119, Business Communications ................ 3
BUSE 140, Business Law and the Legal Environment 3
CISC 110, Microcomputer Applications (or higher) ... 2
ECON 120, Principles of Economics I ............... 3
Total Units =26

For graduation requirements, see Requirements for the Associate Degree on page 58.
Electives as needed to meet minimum of 60 units required for the degree:

Certificate of Achievement or Associate in Science Degree:

Aviation Operations - Pilot
Prepares students for entry level flight positions in the aviation industry.

Courses Required for the Major Units
AVIA 105, Introduction to Aviation and Aerospace ... 3
AVIA 130, Aviation Weather and Physiology ........ 3
AVIA 140, Private Pilot Aeronautical Instruction .... 3
AVIA 200, Commercial Pilot Instruction ............ 3
AVIA 210, Instrument Rating Instruction ............ 3
AVIA 260, Flight Instructor, Ground Instruction .... 3
CISC 110, Microcomputer Applications (or higher) ... 2
Flight Training (see below) .............................3-12
Total Units = 23-32

Flight Training
Upon successful completion of each academic phase of the ground instruction course and verification of the associated flight phase, units for flight training will be allowed toward the degree for the specialization area as indicated below:

FAA Private Pilot Certificate Units
(upon completion of Aviation 140) ..................... 3
FAA Commercial Pilot Certificate
(upon completion of Aviation 200) ..................... 3
Additional Credit for Multi-Engine Rating ............. 1
FAA Instrument Pilot Rating
(upon completion of Aviation 210) ..................... 3
FAA Flight Instructor Certificate
(upon completion of Aviation 260) ..................... 2

The San Diego Community College District accepts no responsibility or liability for flight training because it is obtained from private institutions.
For graduation requirements, see Requirements for the Associate Degree on page 58.
Electives as needed to meet minimum of 60 units required for the degree:
Recommended Electives: Courses in Mathematics, Physics, Basic Electronic Theory, Aviation 120, 270, 290, 296, Computer and Information Sciences. Aviation Maintenance 100.

Certificates of Completion*

Private Pilot Option
Courses: Units
AVIA 130, Aviation Weather and Physiology ......... 3
AVIA 140, Private Pilot Aeronautical Instruction .... 3
Total Units = 6

Instrument Pilot Option
Courses: Units
AVIA 130, Aviation Weather and Physiology ......... 3
AVIA 210, Instrument Rating Instruction ............. 3
Total Units = 6

Commercial Pilot Option
Courses: Units
AVIA 130, Aviation Weather and Physiology ......... 3
AVIA 200, Commercial Pilot Instruction ............ 3
Total Units = 6

Flight Instructor Rating Option
Courses: Units
AVIA 260, Flight Instructor, Ground Instruction .... 3
Total Units = 3
**Aviation Management Option**

Courses: Units  
AVIA 105, Introduction to Aviation and Aerospace ... 3  
AVIA 120, Aviation Management............................ 3  
AVIA 130, Aviation Weather and Physiology ............ 3  
AVIA 140, Private Pilot Aeronautical Instruction ...... 3  
**Total Units = 12**

*These are departmental awards in recognition of information on the transcript and does not imply that a graduation requirement has been met.

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**Anthropology**

**Description**

Anthropology is a scientific discipline that studies human societies, both present and past. The discipline is divided into four broad fields. Cultural anthropology deal with cross-cultural studies of learned behavior, such as language, kinship, religion economics, technology, values and personality. This field prepares one to work in development, community organizing, policy analysis, and social research. Linguistics is the study of the origin and evolution of languages and how they reflect the behavioral patterns of people. Work in this area focuses on inter-cultural communication. Physical anthropology is concerned with hominid evolution and the biological features of human populations. These people work in the growing sector of health related occupations and research. Archaeology is involved in the recovery of material remains of past peoples with the objective of reconstructing the past.

**Program Learning Outcomes**

The curriculum prepares students for advance degrees at baccalaureate colleges and universities. In addition, courses in this curriculum meet the general education requirements for degrees at two and four-year institutions.

**Faculty Office Telephone**

Corrie D. Ort B-302B (619) 388-7501

**Career Options**

Most careers related to this discipline require education beyond the associate degree level. Anthropological skills are important for careers in areas such as: social services, health, community organizing, cultural resource management, urban planning, international economic development, education, social work and public policy.

**Course Requirements for Transfer Students**

Students who plan to transfer to a four-year college or university and earn a bachelor's degree in this discipline need to follow the preparation for the major.
Art-Fine Art

Description
This program provides fundamental training in two-dimensional art and design and in three-dimensional art and design which enable students to earn an associate degree while completing lower division preparation for a four-year degree. The curriculum is designed to maximize transferable course units and to provide basic skills required for employment in art-related fields.

Program Learning Outcomes
Within the major, courses are suggested with an emphasis to suit the student's interests. One of twelve areas of emphasis may be selected: painting, pictorial (drawing), combined drawing/painting, sculpture, craft skills including ceramics, art education, art history, graphic communications, studio arts, or a non-specialized art major.

Note: Not all areas of emphasis may be offered at every campus.

Faculty
Dee Dee Coppedge
Office: B-403E
Telephone: (619) 388-7514
dcoppedge@sdccd.net

Robert Fritsch
Office: B-403F
ArtLab
Telephone: (619) 388-7515
bfritsch@sdccd.net

Career Options
Some careers listed require education beyond the associate degree: art educator, art historian, arts administrator, advertising specialist, ceramicist, computer publishing, design consulting, display designer, gallery director, illustrator, muralist, printmaker, sculptor, and digital graphics specialist.

Academic Programs
The associate degree in Fine Art requires completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Note: Not all areas of emphasis may be offered at every campus.
Transfer Information

Course Requirements for Transfer Students
Students who plan to transfer to a four-year college or university and earn a bachelor's degree in this discipline need to follow the preparation for the major on page 111 in the Transfer Studies Degree section of the catalog.

Certificate of Completion:

Craft Skills*

Courses:                Units
ARTF 170A, Contemporary Crafts I ..................... 3
ARTF 170B, Contemporary Crafts II ..................... 3
ARTF 170C, Contemporary Crafts III ................... 3
ARTF 290, Independent Study ................................ 1-3

Total Units = 10 -15

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Associate in Arts Degrees:

Art-Fine Art

Combined Drawing/Painting

Courses Required for the Major:                Units
ARTF 150A, Design I ...................................... 3
ARTF 150B, Design II ..................................... 3
ARTF 155A, Freehand Drawing I ......................... 3
ARTF 155B, Freehand Drawing II ......................... 3
ARTF 165A, Composition Painting I ..................... 3
ARTF 210A, Life Drawing I ................................ 3

Select six-units from:
ARTF 109, Nineteenth and Twentieth Century Art
ARTF 110, Art History: Prehistoric to Gothic, or
ARTF 111, Art History: Renaissance to Modern ........ 6

Select three-units from:
ARTF 107, Art Since 1960*
ARTF 155B, Freehand Drawing II
ARTF 161A, Gallery Exhibition Skills I*
ARTF 161B, Gallery Exhibition Skills II*
ARTF 170B, Contemporary Crafts II
ARTF 170C, Contemporary Crafts III
ARTF 175A, Sculpture I
ARTF 177A Contemporary Wood Furniture*
ARTF 177B Contemporary Wood Furniture II*
ARTF 177C Contemporary Wood Furniture III*
ARTF 195B, Ceramics II
ARTF 195C, Ceramics III
ARTF 195D, Porcelain Ceramics*
ARTF 196, Clay and Glaze Technology*
ARTF 220A, Life Sculpture I*

Any art history course, or
ARTF 281, Issues in Visual Art (Lab)*
PHOT 105, Introduction to Photography*(City) ........ 3

Total Units = 24

Note: Only one ARTF Arts (ARTF) course from the above list may be used to satisfy SDCCD general education requirements.

Craft Skills

Courses Required for the Major:                Units
ARTF 150A, Design I ...................................... 3
ARTF 151, Three-Dimensional Design ................. 3
ARTF 155A, Freehand Drawing I ......................... 3
ARTF 170A, Contemporary Crafts I ..................... 3
ARTF 195A, Ceramics I .................................... 3

Note: Only one ARTF Arts (ARTF) course from the above list may be used to satisfy SDCCD general education requirements.

Studio Arts

Courses Required for the Major:                Units
ARTF 100, Art Orientation, or
ARTF 161A Gallery Exhibition Skills I* ............... 3
ARTF 150A, Design I ..................................... 3
ARTF 150B, Design II ..................................... 3
ARTF 151 or 161A ......................................... 3
ARTF 155A, Freehand Drawing I ......................... 3
ARTF 155B, Freehand Drawing II ......................... 3
ARTF 165A, Composition in Painting I ................. 3
ARTF 175A, Sculpture I .................................. 3
ARTF 210A, Life Drawing I, or
ARTF 220A, Life Sculpture I* ........................... 3
PHOT 105, Introduction to Photography*(City) ........ 3

Total Units = 27

Note: Only one Art-Fine Art (ARTF) course from the above list may be used to satisfy SDCCD general education requirements.
Select six-units from:
ARTF 109, Nineteenth and Twentieth Century Art
ARTF 110, Art History: Prehistoric to Gothic, or
ARTF 111, Art History: Renaissance to Modern........ 6
Foreign Language Requirement: three semesters of one
foreign language or the successful completion of a
proficiency examination is required...............15
Total Units = 48

Note: Only one Art-Fine Art (ARTF) course from the
above list may be used to satisfy SDCCD general
education requirements.

*Note: Students may not be able to take all courses
listed at this campus. You may wish to consult a
counselor or department chairperson.

Automotive Technology

Description
The Automotive Technology program provides both
classroom theory and extensive hands-on (shop) entry-
level employment training and as well as professional
upgrading to persons in the automotive industry. The
program provides all training required for state licenses
as well as for each of the areas tested for National
Automotive Service Excellence (ASE) certification. A
Certificate Program is offered in Automotive Electrical,
Automotive Engines, Automotive Transmission, and
Automotive Brakes and Suspension, which consist of
required pattern of certificate courses.

Program Learning Outcomes
The program emphasis is on various automotive
manufacturer products, with specific training in Toyota,
Honda and Daimler Chrysler Motor Service internship
training. The program provides opportunity for
internship training at Toyota, Honda and Daimler
Chrysler automotive dealers, if selected. The student
intern would work for a dealership while receiving
formal training in the Auto Tech classes and attend
classes on their off work schedule. Upon completion,
the student will have the opportunity for full-time
employment at that dealership. While progressing
through the training, students are strongly encouraged
to obtain at least two Automotive Service Excellence
(ASE) Certifications.

Faculty
Raley Quon
Miramar College, Rm. B-301e (619) 388-7498
Vernal Goodman Miramar College,
Mira Mesa H. S. Rm. 415 (619) 388-7499

Careers
Employment may be found as an entry-level automotive
technician in an automotive manufacturer dealership,
an independent repair garage or automotive franchise
such as: Firestone Tire, Sears or Montgomery Ward.
Academic Programs
The certificates of achievement and associate degree, Automotive, require completion of the courses listed below.

Certificates of Achievement:
Automotive Technology

Automotive Brakes and Suspension
Courses Required for the Major: Units
AUTO 053, Automotive Introductory & Safety ........ 3
AUTO 055, Basic Electricity and Electrical Systems
  Fundamentals ........................................... 3
AUTO 062, Electrical Mastery or
AUTO 142, Manual Transmissions Drive Lines .......... 4
AUTO 068, Climate Control Systems ..................... 2.5
AUTO 152, Automotive Brake Systems .................... 4
AUTO 154, Suspension and Steering Systems ........... 4
Total Units = 20.5

Automotive Electrical
Courses Required for the Major: Units
AUTO 053, Automotive Introductory & Safety ........ 3
AUTO 114A, Engine and Related Systems ............... 3
AUTO 055, Basic Electricity and Electrical Systems
  Fundamentals ........................................... 3
AUTO 062, Electrical Mastery ........................... 4
AUTO 066, Drivability ................................... 2
AUTO 068, Climate Control Systems ..................... 2.5
Total Units = 17.5

Automotive Engine
Courses Required for the Major: Units
AUTO 053, Automotive Introductory & Safety ........ 3
AUTO 114A, Engine and Related Systems ............... 3
AUTO 055, Basic Electricity and Electrical Systems
  Fundamentals ........................................... 3
AUTO 062, Electrical Mastery ........................... 4
AUTO 068, Climate Control Systems ..................... 2.5
AUTO 154, Suspension and Steering Systems ........... 4
Total Units = 19.5

Automotive Transmission
Courses Required for the Major: Units
AUTO 053, Automotive Introductory & Safety ........ 3
AUTO 114A, Engine and Related Systems ............... 3
AUTO 055, Basic Electricity and Electrical Systems
  Fundamentals ........................................... 3
AUTO 142, Manual Transmissions Drive Lines .......... 4
AUTO 144, Automatic Transmissions/Axles ............ 4
AUTO 068, Climate Control Systems or
AUTO 154, Suspension and Steering Systems ........... 4
  Systems ............................................. 2.5-4.0
Total Units = 19.5 - 21

Associate in Science Degree:
Automotive Technology
Courses Required for the Major: Units
AUTO 114A, Engine and Related Systems ............... 3
AUTO 055, Basic Electricity and Electrical Systems
  Fundamentals ........................................... 3
AUTO 062, Electrical Mastery ........................... 4
AUTO 064, Advanced Fuel and Emissions Systems .... 2
AUTO 066, Drivability ................................... 2
AUTO 068, Climate Control Systems ..................... 2.5
AUTO 142, Manual Transmissions Drive Lines .......... 4
AUTO 144, Automatic Transmissions/Axles ............ 4
AUTO 152, Automotive Brake Systems .................... 4
AUTO 154, Suspension and Steering Systems ........... 4
AUTO 195, The Clean Air Car ............................ 5
AUTO 095, Automotive Technology Internship ........ 4
Total Units = 42.5

For graduation requirements see Requirements for the Associate Degree on page 58.

Electives as needed to meet minimum of 60 units required for the degree:
Recommended Electives: Automotive Technology 095, 107, 189, 270, 290.

Courses designed as a bridge from high school courses to college to support this major: Automotive Technology (AUTO) 52, 54A, 54B, and 57.
Description
Biology is a natural science that focuses on physical and chemical processes of living organisms. This discipline explores how organisms acquire and use energy to maintain homeostasis, how they reproduce, and how they interact with each other and their environment. Scientific processes are emphasized as a means of answering these biological questions. Biologists rely heavily on a chemistry foundation since living organisms are chemical systems.

Program Learning Outcomes
The biology program serves four areas of study. First, it provides a broad background of studies for the biology major preparing for transfer to a four-year institution. Second, the Applied Biology curriculum provides preparation for entry level employment as a biotechnology technician. The biology program also offers support courses in human anatomy, human physiology and general microbiology which may be used to satisfy prerequisites for nursing programs and other allied health fields. Fourth, the biology program provides courses in natural science to fulfill general education requirements.

Faculty Office Telephone/Email
Gin Gee B-301A (619) 388-7489 
ggee@sdccd.net
Marie McMahon B-301D (619) 388-7497 
mmcmahon@sdccd.net
Kevin Petti B-301A (619) 388-7491 
kpetti@sdccd.net
Sandra Slivka B-301 sslivka@sdccd.net
Dan Trubovitz B-301D (619) 388-7495 
dtrubovi@sdccd.net

Career Options
The following list is a sample of the many career options available for the biology major. A few of these require a certificate, some an associate degree, some a baccalaureate degree and some require a graduate level degree:

- agricultural consultant
- animal health technician
- biotechnology technician
- dentist
- environmental consultant
- field biologist
- forester
- horticulturist
- high school or college teacher
- marine biologist
- microbiologist
- public health technician
- physician
- pharmaceutical researcher
- research biologist
- veterinarian

In addition, a background in biology may be required for the following: registered nurse, physical therapist, respiratory therapist, dental hygienist, medical technician, physician's assistant, and optometrist.

Academic Programs
The associate degrees and the certificates in Biology offered at Miramar College require completion of the courses listed below. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Transfer Information
Course Requirements for Transfer Students
Students who plan to transfer to a four-year college or university and earn a bachelor's degree in this discipline need to follow the preparation for the major on page 111 in the Transfer Studies Degree section of the catalog.

Note: Courses designated with * below are not offered currently at Miramar College, but are offered at City and/or Mesa Colleges.

Certificate of Completion:
Biology

Applied Biotechnology Track*
Students may take the specific biotechnology courses (Biology 132 and 133 at Miramar College, or Biology 206 at City College) and receive a Certificate of Completion authorized and issued by the academic department. It is not intended to nor will it be recognized as an official state approved program. It is intended to provide students with intensive laboratory skills development experience to meet entry-level employment requirements in the biotechnology industry.

Courses:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 132, Applied Biotechnology I</td>
<td>6-8</td>
</tr>
<tr>
<td>BIOL 133, Applied Biotechnology II</td>
<td></td>
</tr>
<tr>
<td>BIOL 206*, Biotechnology Instrumentation</td>
<td>6-8</td>
</tr>
</tbody>
</table>

Total Units = 6-8
*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

**Associate in Science Degree:**

**Biology**

**Allied Health Track**

Consult the Nursing Education faculty (City College) or a counselor to verify current course requirements for associate degree and baccalaureate nursing program preparation.

**Courses Required for the Major:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 105</td>
<td>Principles of Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 106</td>
<td>Principles of Biology</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>*BIOL 107, General Biology-Lecture &amp; Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 205</td>
<td>General Microbiology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 230</td>
<td>Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 235</td>
<td>Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 100</td>
<td>Fundamentals of Chemistry and</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 100L</td>
<td>Fundamentals of Chemistry Lab</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Units = 21**

Note: Only one Biology (BIOL) course, from the above list may be used to satisfy SDCCD general education requirements.

For graduation requirements see **Requirements for the Associate Degree** on page 58.

**Electives as needed to meet minimum of 60 units required for the degree:**

**Recommended Electives:** Biology 101*, 115, 130, 131, 180, 215, 250; Chemistry 130, 130L.

*Note: Courses designated with * above are not offered currently at Miramar College, but are offered at City and/or Mesa Colleges.

**Associate in Science Degree:**

**Biology**

**Applied Biology Track**

**Courses Required for the Major:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 105</td>
<td>Principles of Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 106</td>
<td>Principles of Biology</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>*BIOL 107, General Biology-Lecture &amp; Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 205</td>
<td>General Microbiology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 132</td>
<td>Applied Biotechnology I and</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>*BIOL 206, Biotechnology Instrumentation</td>
<td>6-8</td>
</tr>
<tr>
<td>BIOL 133</td>
<td>Applied Biotechnology II</td>
<td>6-8</td>
</tr>
<tr>
<td>or</td>
<td>*CISC 110, Microcomputer Applications or</td>
<td>2-4</td>
</tr>
<tr>
<td>CHEM 200</td>
<td>General Chemistry I Lecture and</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 200L</td>
<td>General Chemistry I Lab</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 201</td>
<td>General Chemistry II Lecture and</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 201L</td>
<td>General Chemistry II Lab</td>
<td>5</td>
</tr>
<tr>
<td>*CISC 181, Principles of Information Systems</td>
<td>2-4</td>
<td></td>
</tr>
</tbody>
</table>

**Total Units = 27-31**

Note: Only one Biology (BIOL course, from the above list may be used to satisfy SDCCD general education requirements.

*Students may complete this course requirement by challenge exam or other equivalent proof of computer/software proficiency certified by the CISC department.

For graduation requirements see **Requirements for the Associate Degree** on page 58.

**Electives as needed to meet minimum of 60 units required for the degree:**

**Recommended Electives:** Biol 131, Physics 120A, 120B, 121A, 121B.
**Business Administration**

**Description**
The business program prepares the student for transfer to a four-year college or for a business occupational area of his/her own choice.

**Program Learning Outcomes**
The Business Program offers a certificate of Achievement and an Associate of Science Degree in Business Administration, Business Management, and Business Management: Mortgage Brokerage and Banking.

**Faculty Office Telephone**
Ron Costin I-104A (619) 388-7702  
Dorothy Simpson I-102A (619) 388-7697  
Octavian Dobre I-102C (619) 388-7692

**Career Options**
Prepares students for initial employment in the mortgage brokerage and banking industry. Flexible course selection makes it possible for a student to advance or start a small business of his own. Further education may be necessary for entry-level management positions.

**Transfer Information**
Course Requirements for Transfer Students
Students who plan to transfer to a four-year college or university and earn a bachelor’s degree in this discipline need to follow the preparation for the major on page 112 in the Transfer Studies Degree section of the catalog.

**Certificate of Achievement:**

- Business Management

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSE 100, Introduction to Business (Recommended as a first semester course)</td>
<td>3</td>
</tr>
<tr>
<td>BUSE 101, Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>BUSE 119, Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUSE 140, Business Law and the Legal Environment</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 116A, Principles of Accounting-Financial</td>
<td>4</td>
</tr>
<tr>
<td>CISC 181, Principles of Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>ECON 120, Principles of Economics I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units = 35**

**Associate in Science Degree:**

- Business Management

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSE 100, Introduction to Business (Recommended as a first semester course)</td>
<td>3</td>
</tr>
<tr>
<td>BUSE 101, Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>BUSE 119, Business Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

**San Diego Miramar College • 2003-2004**
BUSE 140, Business Law and the Legal Environment.............................. 3
BUSE 150, Human Relations in Business .......................................... 3
BUSE 201, Business Organization and Management.......................... 3
ACCT 116A, Principles of Accounting-Financial.............................. 4
CISC 181, Principles of Information Systems................................... 4
ECON 120, Principles of Economics I........................................... 3
ECON 121, Principles of Economics II........................................... 3
Marketing 100, Principles of Marketing......................................... 3
**Occupational Electives.........................................................12
Total Units = 47

Note: Only one Business (BUSE) course from the above list may be used to satisfy SDCCD general education requirements.

For graduation requirements see Requirements for the Associate Degree on page 58.

Electives as needed to meet minimum of 60 units required for the degree:
Recommended Electives: Accounting 116B; Business 143*, 155, 270; CBTE 180; Marketing 105.

*Note: Courses designated with * above are not offered currently at Miramar College, but are offered at City and/or Mesa Colleges.

**These courses should be planned with the assistance of a counselor and must be approved by a department member. Approval forms may be obtained in the counseling office.

Business Management
Mortgage Brokerage and Banking

Description
The Mortgage Brokerage and Banking program prepares students with the knowledge and skills necessary for initial employment in the mortgage brokerage and banking industry and facilitates advanced employment opportunities for persons already employed in the industry.

Program Learning Outcomes
The program course content relates specifically to California regulations with regard to mortgage brokerage and banking and the real estate industry. Individual courses emphasize the knowledge and skills, with specific hands-on training on current industry software; essential for specific employment in loan processing, loan underwriting, and loan closing. The entire program provides overall education and training for entry-level employment into the mortgage brokerage and banking industry with completion of a certificate of achievement and/or Associate in Science Degree. Individual courses may meet continuing education real estate license requirements in the State of California.

Careers
Individual courses in addition to the entire Mortgage Brokerage and Banking program prepares students for careers in loan processing, loan underwriting, loan closing.

Academic Programs

Certificate of Completion:
Loan Processor*

The 9 unit Loan Processor certificate prepares the student with the knowledge and skills necessary for employment as a loan processor in the mortgage brokerage and banking industry.

Courses: Units
BANK 102, Mortgage Brokerage and Banking ..................4
BANK 104, Principles of Loan Processing ......................5
Total Units = 9

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Certificate of Completion:
Loan Underwriter*

The 9 unit Loan Underwriter certificate prepares the student with the knowledge and skills necessary for employment as a loan underwriter in the mortgage brokerage and banking industry.

Courses: Units
BANK 102, Mortgage Brokerage & Banking ..................4
BANK 106, Loan Underwriter .........................................5
Total Units = 9

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Certificate of Completion:
Loan Closer*

The 8 unit Loan Closer certificate prepares the student with the knowledge and skills necessary for
employment as a loan closer in the mortgage brokerage and banking industry.

Courses: Units
BANK 102, Mortgage Brokerage and Banking .......... 4
BANK 108, Principles of Loan Closing ..................... 4
Total Units = 8

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Certificate of Achievement:
Business Management

Mortgage Brokerage and Banking

Courses Required for the Major: Units
BANK 102, Mortgage Brokerage and Banking .......... 4
BANK 104, Principles of Loan Processing ............... 5
BANK 106, Loan Underwriting .............................. 5
BANK 108, Principles of Loan Closing ..................... 4
Total Units = 18

Associate in Science Degree:
Business Management

Mortgage Brokerage and Banking

Courses Required for the Major: Units
BANK 102, Mortgage Brokerage and Banking .......... 4
BANK 104, Principles of Loan Processing ............... 5
BANK 106, Loan Underwriting .............................. 5
BANK 108, Principles of Loan Closing ..................... 4
REAL 101, Real Estate Principles............................ 3
REAL 115, Real Estate Finance I ............................ 3
BUSE 119, Business Communications...................... 3
Total Units = 27

For graduation requirements see Requirements for the Associate Degree on page 58.

Electives as needed to meet minimum of 60 units required for the degree:
Recommended Electives: Business 140, 143*; Computer and Information Science 110; Economics 120; Real Estate 105*; Escrow 101*.

*Note: Courses designated with * above are not offered currently at Miramar College, but are offered at City and/or Mesa Colleges.

Chemistry

Description
The Chemistry Program fosters an understanding of the fundamental principles of chemistry in a variety of applications - medicine, health-care products, energy, food production, body metabolism, structural materials, microelectronics, and the environment. Students learn how chemical knowledge is derived, theorized, and applied in solving problems in everyday life. Students perform experiments in a modern chemistry laboratory under the guidance of experienced faculty.

Program Learning Outcomes
The curriculum is designed to meet the needs of students who wish to pursue a major in fields such as: (1) chemistry, biology, marine science, geology, physics, medicine, engineering, or technology; (2) paramedical or allied health science, including nursing, physical therapy, or nutrition; or (3) liberal arts. Courses will also meet general education requirements for both the two and four-year institutions.

Faculty

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Office</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daphne Figueroa</td>
<td>B-301c</td>
<td>(619) 388-7494</td>
</tr>
<tr>
<td>Fred Garces</td>
<td>B-301E</td>
<td>(619) 388-7493</td>
</tr>
</tbody>
</table>

Career Options
Most careers in this discipline require education beyond the associate degree level. A baccalaureate degree in chemistry prepares students for careers such as: teaching, research, and advancement into professional graduate programs.

Transfer Information

Course Requirements for Transfer Students
Students who plan to transfer to a four-year college or university and earn a bachelor’s degree in this discipline need to follow the preparation for the major on page 112 in the Transfer Studies Degree section of the catalog.
Description
Child Development offers programs for career and transfer students. Certificates of Completion, Certificates of Achievement and Associate Degree programs are available to students interested in a range of child development opportunities and in meeting the requirements for the State of California Child Development Permits and the California State Department of Social Services, Title 22, Community Care Licensing.

Program Learning Outcomes
The Child Development program offers course work, training and supervised practicum experiences to meet state licensing requirements for working in centers, schools, child care homes and service related agencies. The skills and knowledge gained in beginning courses provide the framework and foundation for more specialized courses.

Faculty Office Telephone
Peter Elias Child Dev. Center F-201 (619) 388-7677
Sally Nalven Child Dev. Center F-207 (619) 388-7681

Career Options
The San Diego Community College District offers certificates, degrees and transfer options in the field of Child Development/Early Childhood Education. The Family Child Care Certificate offered at City, Mesa, and Miramar and the Home Day Care Certificate offered at Mesa provides skills and knowledge for child care in family settings. The Family and Child Relations Certificate offered at Miramar prepares students to work with families and their children in educational and service related agencies. The Infant/Toddler Care Certificate of Completion offers skills for working with children aged birth to three years. The School Age Child Care Certificate of Completion offered at City and Mesa provides training for working with school age children. The Assistant Teacher Certificate of Completion prepares an individual to work in public and private child care settings. The Certificate of Achievement options, Associate Teacher, Teacher, and Master Teacher, prepare individuals for higher level instructional positions. The Assistant Teacher, Associate Teacher, Teacher, and Master Teacher certificates meet the requirements for the State of California Child Development Permits. The Child Development Associate in Science Degrees prepare for teacher, master teacher, director, and site supervisory positions.

Transfer Information
Course Requirements for Transfer Students
Students who plan to transfer to a four-year college or university and earn a bachelor's degree in this discipline need to follow the preparation for the major on page 113 in the Transfer Studies Degree section of the catalog.

Academic Programs

*Certificates of Completion
These are department awards in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Certificate of Completion: Assistant Teacher*
This certificate prepares students to assist in the instruction of children under the supervision of an Associate Teacher or higher. Child Development courses must be completed with a grade of "C" or better.

Courses: Units
CHIL 101, Human Growth and Development.............. 3
CHIL 180, Nutrition, Health & Safety for Children .... 3
Select one course from:
CHIL 111, Curriculum: Music/Motor Skills
CHIL 121, Curriculum: Art
CHIL 131, Curriculum: Language/Science
CHIL 141, Child, Family and Community ................. 3
Select one course from:
CHIL 160, Observing and Understanding Children
CHIL 161, Observations and Issues in Child Development
CHIL 270, Work Experience
CHIL 291, or 291A, or 291B, or 291C, or 291D,
Child Development Center Practicum............... 1-4
Total Units = 10-13
Certificate of Completion:
Family and Child Relations*
This certificate prepares students to work with families and their children in educational settings and service related agencies.

Courses: Units
CHIL 101, Human Growth and Development.............. 3
CHIL 141, Child, Family and Community.................. 3
CHIL 160, Observing and Understanding Children .... 2
CHIL 161, Observations and Issues in Child Development.............................................. 2
Select one course from:
CHIL 162, Observing and Guiding Child Behavior or
CHIL 165, Children with Special Needs or
CHIL 188, Child Abuse ......................................... 3

Total Units = 13

Certificate of Completion:
Family Child Care*
This certificate prepares students with basic training to care for children in a licensed home/family settings. Child Development courses must be completed with a grade of "C" or better.

Courses: Units
CHIL 100, Introduction to Child Development or
CHIL 101, Human Growth and Development.............. 3
CHIL 180, Nutrition, Health & Safety for Children..... 3
Select one course from:
CHIL 111, Curriculum: Music/Motor Skills
CHIL 121, Curriculum: Art
CHIL 131, Curriculum: Language/Science
CHIL 175, The Infant Toddler ................................ 3

Total Units = 9

Certificate of Completion:
Infant/Toddler Care*
This certificate prepares students with basic training to work with children aged birth to three years in licensed home/family care and center programs. Child Development courses must be completed with a grade of "C" or better.

Courses: Units
CHIL 100, Introduction to Child development or
CHIL 101, Human Growth and Development.............. 3
CHIL 175, The Infant/Toddler ................................ 3
CHIL 176, Principles of Infant/Toddler Caregiving .... 3

Total Units = 9

Certificate of Completion:
Residential Care Workers*
This certificate is designed to meet the State requirements for positions in residential care programs.

Courses: Units
CHIL 101, Human Growth and Development.............. 3
CHIL 141, Child, Family and Community ................. 3
CHIL 175, The Infant Toddler................................ 3
CHIL 188, Child Abuse ......................................... 3

Total Units = 12

For the Certificates of Completion listed above, one or more of the following courses is recommended to gain experience and credits required for higher level permits:
CHIL 160, Observing and Understanding Children
CHIL 161, Observations and Issues in Child Development
CHIL 270, Work Experience
CHIL 291, or 291A, or 291B, or 291C, or 291D, Child Development Center Practicum

Certificate of Achievement:
Child Development
Associate Teacher
This certificate prepares students to provide instruction to children and supervise Assistant Teachers. Child Development courses must be completed with a grade of "C" or better.

Courses Required for the Major: Units
CHIL 101, Human Growth and Development.............. 3
CHIL 141, Child, Family and Community ................. 3
CHIL 180, Nutrition, Health & Safety for Children .... 3
Select two courses from:
CHIL 111, Curriculum: Music/Motor Skills
CHIL 121, Curriculum: Art
CHIL 131, Curriculum: Language/Science .................. 3,3
Select three or more units from:
CHIL 160, Observing and Understanding Children
CHIL 161, Observations and Issues in Child Development
CHIL 270, Work Experience
CHIL 291, or 291A, or 291B, or 291C, or 291D, Child Development Center Practicum..................... 3-4

Total Units = 18-19
Certificate of Achievement: Child Development

Teacher
This certificate prepares students to provide instruction to children and supervise Assistant and Associate Teachers. Child Development courses must be completed with a grade of "C" or better.

Courses Required for the Major: Units
CHIL 101, Human Growth and Development............. 3
CHIL 111, Curriculum: Music/Motor Skills ................ 3
CHIL 121, Curriculum: Art .................................... 3
CHIL 131, Curriculum: Language/Science ................. 3
CHIL 141, Child, Family and Community.................. 3
CHIL 180, Nutrition, Health & Safety for Children...... 3
CHIL 151, Program Planning ................................ 3

and concurrent enrollment in:
CHIL 270, Work Experience, or
CHIL 275, Supervised Field Study .......................... 2-4

Select one of the following three options:
CHIL 160, Observing & Understanding Children and
CHIL 161, Observation & Issues in Child Development
or
CHIL 165, Children with Special Needs or
CHIL 175, Infant/Toddler .................................. 3-4

Total Units = 26-29

Certificate of Achievement: Child Development

Master Teacher
This certificate prepares students to provide instruction to children and supervised Assistant/Associate Teachers and Teachers. It further prepares the Master Teacher to coordinate curriculum and staff development. Child Development courses must be completed with a grade of "C" or better.

Courses Required for the Major: Units
CHIL 101, Human Growth and Development............. 3
CHIL 111, Curriculum: Music/Motor Skills ................ 3
CHIL 121, Curriculum: Art .................................... 3
CHIL 131, Curriculum: Language/Science ................. 3
CHIL 141, Child, Family and Community.................. 3
CHIL 180, Nutrition, Health & Safety for Children...... 3
CHIL 151, Program Planning ................................ 3

AND

CHIL 215, Adult Supervision & Mentoring in Early Childhood Settings................................. 3

AND

CHIL 270, Work Experience, or
CHIL 275, Supervised Field Study (with concurrent enrollment in CHIL 151, Program Planning) ................. 2-4

AND

Select one of the following Specializations for a total of 6 - 7 units:
Guiding Young Children
CHIL 160, Observing & Understanding Children
CHIL 161, Observation & Issues in Child Development
CHIL 162, Observing and Guiding Child Behavior
Family Life
CHIL 160, Observing & Understanding Children
CHIL 161, Observation & Issues in Child Development
CHIL 188, Child Abuse

Special Needs
CHIL 165, Children with Special Needs
CHIL 166, Special Needs Curriculum or
Infant/Toddler
CHIL 175, The Infant/Toddler Caregiver
CHIL 176, Principles of Infant/Toddler Caregiving or
School Age
CHIL 152, School-Age Program Planning and
Select one course from:
CHIL 185, Computer Usage with Young Children or
MATH 210A, Concepts of Elementary School Mathematics or
MUSI 110, Music for the Elementary School Teachers or
PHYE 240, Physical Education in the Elementary Schools

Total Units = 35-39

Associate in Science Degree: Child Development

This degree prepares students to provide instruction to children and supervise Assistant and Associate Teachers. Child Development courses must be completed with a grade of "C" or better. Additional general education and graduation requirements are
listed in the Academic Requirements section of this catalog. The Associate Degree requires a minimum of 60 units.

Courses Required for the Major Units
CHIL 101, Human Growth and Development............. 3
CHIL 111, Curriculum: Music/Motor Skills ............... 3
CHIL 121, Curriculum: Art ................................ 3
CHIL 131, Curriculum: Language/Science ............... 3
CHIL 141, Child, Family and Community ................. 3
CHIL 180, Nutrition, Health & Safety for Children.... 3
CHIL 151, Program Planning ................................ 3

and concurrent enrollment in:
CHIL 270, Work Experience, or
CHIL 275, Supervised Field Study ....................... 2-4

Select one of the following three options:
CHIL 160, Observing & Understanding Children and
CHIL 161, Observation & Issues in Child Development
or
CHIL 165, Children with Special Needs or
CHIL 175, Infant/Toddler ................................ 3-4

Total Units = 26-29

Associate in Science Degree:
Child Development

Site Supervisor

This degree prepares students to supervise single site programs, provide instruction to children and coordinate curriculum and staff development. Child Development courses must be completed with a grade of “C” or better. Additional general education and graduation requirements are listed in the Academic Requirements section of this catalog. The Associate Degree requires a minimum of 60 units.

Courses Required for the Major: Units
CHIL 101, Human Growth and Development............. 3
CHIL 111, Curriculum: Music/Motor Skills ............... 3
CHIL 121, Curriculum: Art ................................ 3
CHIL 131, Curriculum: Language/Science ............... 3
CHIL 141, Child, Family and Community ................. 3
CHIL 151, Program Planning ................................ 3

and concurrent enrollment in:
CHIL 270, Work Experience, or
CHIL 275, Supervised Field Study ....................... 2-4

CHIL 202, Administration of Early Childhood Programs ........................................... 3
CHIL 210, Supervision of Early Childhood Programs .. 3
CHIL 215, Adult Supervision and Mentoring in Early Childhood Settings ............................. 3

Select one of the following three options:
CHIL 160, Observing & Understanding Children and
CHIL 161, Observation & Issues in Child Development
or
CHIL 165, Children with Special Needs or
CHIL 175, Infant/Toddler ................................ 3-4

Total Units = 35-38


Courses offered by San Diego Community College District that meet experience requirements for Certificates and Degrees:

CHIL 160, Observing & Understanding Children, 2 units (16 days)
CHIL 161, Observation & Issues in Child Development, 2 units (16 days)
CHIL 270, Work Experience, 1 unit (16 days)
CHIL 270, Work Experience, 2 unit (32 days)
CHIL 270, Work Experience, 3 unit (48 days)
CHIL 270, Work Experience, 4 unit (64 days)
CHIL 275, Supervised Field Study, 2 unit (32 days)
CHIL 291, Child Development Practicum, 1 unit (16 days)
CHIL 291, Child Development Practicum, 2 unit (32 days)
CHIL 291A, Child Development Practicum, 1 unit (16 days)
CHIL 291B, Child Development Practicum, 1 unit (16 days)
CHIL 291C, Child Development Practicum, 1 unit (16 days)
CHIL 291D, Child Development Practicum, 1 unit (16 days)

Note: Some courses are not currently offered at Miramar, but are offered at City and/or Mesa Colleges. Please see a counselor.
Computer Business Technology

Description
The Computer Business Technology program provides theory and hands-on training in major office systems, webpage design, and technology used to enhance productivity and communications. Students are prepared, through extensive coursework, with the necessary skills and knowledge for initial employment in the field of business.

Learning Outcomes
Computer Business Technology offers Certificates of Completion in Administrative Assistant, Website Designer, Typist/Word Processor, and E-Commerce. Certificates of Achievement and Associate Degrees are offered in Microcomputer Applications and Administrative Assistant. This program provides training necessary for successful performance in a variety of business positions. Emphasis is on modern methods and updated software and equipment.

Certificate of Completion: Administrative Assistant*
This certificate prepares students for entry-level positions as administrative assistants.

Courses:  
Units  
CBTE 101, Keyboarding for Computers ..................... 1  
CBTE 111, Windows 95 or CBTE 112 Windows 98 ...... 1  
CBTE 120, Microsoft Word or CBTE 130, Beginning  
Corel WordPerfect................................................. 2  
CBTE 164, Intro to Microsoft Outlook ..................... 1  
CBTE 180, Microsoft Office .................................... 3  
CBTE 210, Computers in Business.......................... 3  
Total Units = 11

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Certificate of Completion: Website Designer*
This certificate prepares students for entry-level positions as web page designers.

Courses:  
Units  
CBTE 126, Document Processing .......................... 3  
CBTE 151, Intro to Microsoft Access ..................... 1  
CBTE 161, Learning the Internet .......................... 1  
CBTE 162, Web Page Creation............................ 2  
CBTE 198A or CBTE 198B, Project Lab ................. 0.5  
Total Units = 8.5

Certificate of Completion: E-Commerce*
This certificate prepares students for employment in a variety of Web Based Occupations that utilize the leading edge technologies of E-Commerce.

Courses:  
Units  
CBTE 173, Introduction to E-Commerce .................. 3  
CBTE 151, Introduction to Microsoft Access .......... 1  
CBTE 161, Learning the Internet .......................... 1  
CBTE 162, Web Page Creation ............................. 2  
CBTE 200, Office Telecommunications ................... 2  
CBTE 210, Computer in Business ....................... 3  
BUSE 119, Business Communications ................. 3  
Total Units = 15

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Certificate of Completion: Typist/Word Processor*
This certificate prepares students for entry-level positions as typists and word processors in a variety of occupations.

Courses:  
Units  
CBTE 101, Keyboarding for Computers .................. 1  
CBTE 102, Keyboarding ....................................... 2  
CBTE 111, Windows 95 or CBTE 112, Windows 98 .... 1  
CBTE 120, Microsoft Word or CBTE 130, Beginning  
Corel WordPerfect .............................................. 2  
CBTE 122, Microsoft Word or CBTE 132  
Corel WordPerfect .............................................. 3  
CBTE 164, Intro to Microsoft Outlook ................... 1  
Total Units = 10

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Certificate of Completion: E-Commerce*
*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

**Administrative Assistant**

Prepares the student for employment in business or civil service as a general office clerk, clerk-typist, file clerk, receptionist, cashier, word processor, machine transcriptionist, or other positions not requiring stenography.

---

**Certificate of Achievement:**

**Computer Business Technology**

**Administrative Assistant**

Courses Required for the Major:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBTE 101, or 102, or 103, Keyboarding</td>
<td>1-3</td>
<td></td>
</tr>
<tr>
<td>CBTE 111, Windows 95 or CBTE 112, Windows 98</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CBTE 120 or 120A/B, Microsoft Word, or CBTE 130 or 130A/B Corel WordPerfect</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>CBTE 122, Microsoft Word or CBTE 132 Corel WordPerfect</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CBTE 140A, Intro to Microsoft Excel</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CBTE 151, Intro to Microsoft Access</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CBTE 170, Desktop Publishing</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>CBTE 205, Records Management</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CBTE 210, Computers in Business, or CBTE 211, Automated Office Procedures</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUSE 101, Business Mathematics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUSE 119, Business Communications</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Total Units = 23-25**

---

**Associate in Science Degree:**

**Computer Business Technology**

**Administrative Assistant**

Courses Required for the Major:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBTE 101, or 102, or 103, Keyboarding</td>
<td>1-3</td>
<td></td>
</tr>
<tr>
<td>CBTE 111, Windows 95 or CBTE 112, Windows 98</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CBTE 120 or 120A/B, Microsoft Word, or CBTE 130 or 130A/B Corel WordPerfect</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>CBTE 122, Microsoft Word or CBTE 132 Corel WordPerfect</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CBTE 140A, Intro to Microsoft Excel</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CBTE 151, Intro to Microsoft Access</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CBTE 161, Learning the Internet</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CBTE 163, Intro to Microsoft FrontPage</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>CBTE 164, Intro to Microsoft Outlook</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CBTE 170, Desktop Publishing</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>CBTE 200, Office Telecommunications</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>BUSE 119, Business Communications</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CISC 130, Intro to Local Area Networks</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

**Total Units = 24-26**

---

**Microcomputer Applications**

Provides training in major office systems and Technology used to enhance productivity and communications.

---

**Certificate of Achievement:**

**Computer Business Technology**

**Microcomputer Applications**

Courses Required for the Major:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBTE 101, or 102, or 103, Keyboarding</td>
<td>1-3</td>
<td></td>
</tr>
<tr>
<td>CBTE 111, Windows 95 or CBTE 112, Windows 98</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CBTE 120 or 120A/B, Microsoft Word, or CBTE 130 or 130A/B Corel WordPerfect</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>CBTE 126, Document Processing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CBTE 140A, Intro to Microsoft Excel</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CBTE 151, Intro to Microsoft Access</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CBTE 161, Learning the Internet</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CBTE 163, Intro to Microsoft FrontPage</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>CBTE 164, Intro to Microsoft Outlook</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CBTE 170, Desktop Publishing</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>CBTE 200, Office Telecommunications</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>BUSE 119, Business Communications</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CISC 130, Intro to Local Area Networks</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

**Total Units = 25.5-27.5**

For graduation requirements see Requirements for the Associate Degree on page 58. Electives as needed to meet minimum of 60 units required for the degree: Recommended Electives: CISC 130; CBTE 126, 161, 270; BUSE 150.
Computer and Information Sciences

Description
The focus of the Computer and Information Sciences program is on the function and use of the computer. The program includes general study of computer languages as well as utilization and application of computer software.

Program Learning Outcomes
The Computer and Information Sciences program offers: a Certificate of Achievement and an Associate Degree in Computer and Information Sciences; and a Certificate of Achievement an Associate Degree in Computer and Information Sciences with an emphasis in Microcomputer Professional.

Faculty Office Telephone
Ed Brunjes I-103C (619) 388-7700
Ronald Costin I-104A (619) 388-7702
John Couture I-103A (619) 388-7698
Richard Schultz I-103C (619) 388-7701

Career Options
Upon completion of the Computer and Information Sciences curriculum the student should be qualified for entry-level employment in the area of microcomputer support, or with additional courses should be qualified for employment in entry-level programmer position.

Academic Programs
The certificate of achievement in Computer Information Sciences requires completion of the courses listed below and is meant to prepare students who are planning and preparing for entry-level positions in the Computer Information Sciences Industry.

Transfer Information
Course Requirements for Transfer Students
Students who plan to transfer to a four-year college or university and earn a bachelor's degree in this discipline need to follow the preparation for the major on page 113 in the Transfer Studies Degree section of the catalog.
Certificate of Completion
Computer Programming*

This certificate of completion in computer programming requires completion of the courses listed below and is meant to prepare students who are planning on preparing for entry-level positions in computer programming and/or information technology. The certificate of completion also offers students the opportunity to learn or enhance computer programming skills.

Courses:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISC 186, Visual Basic Programming</td>
<td>4</td>
</tr>
<tr>
<td>CISC 190, Java Programming</td>
<td>4</td>
</tr>
<tr>
<td>CISC 192, C/C++ Programming</td>
<td>4</td>
</tr>
<tr>
<td>CISC 210, System Analysis and Design</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units = 15

*This is a departmental award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Certificate of Achievement:
Computer and Information Sciences

Courses Required for the Major:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 116A, Principles of Accounting-Financial</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 116B, Principles of Accounting-Managerial</td>
<td>4</td>
</tr>
<tr>
<td>BUSE 119, Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUSE 140, Business Law &amp; the Legal Environment</td>
<td>3</td>
</tr>
<tr>
<td>CISC 181, Principles of Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>CISC 186, Visual Basic Programming</td>
<td>4</td>
</tr>
<tr>
<td>ECON 120, Principles of Economics I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 119, Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>CISC Elective(s)*</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units = 31

*Choose a minimum of 3 units in CISC. Students should consult with their counselor prior to choosing electives to ensure electives meet program and/or transfer goals.

Note: Only one Computer and Information Sciences (CISC) course from the above list may be used to satisfy SDCCD general education requirements.

Associate in Science Degree:
Computer and Information Sciences

The associate degree in Computer Information Sciences requires completion of the courses listed below and is meant to prepare students in Information Decision Systems.

Courses Required for the Major:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 116A, Principles of Accounting-Financial</td>
<td>4</td>
</tr>
<tr>
<td>ACCT 116B, Principles of Accounting-Managerial</td>
<td>4</td>
</tr>
<tr>
<td>BUSE 119, Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUSE 140, Business Law &amp; the Legal Environment</td>
<td>3</td>
</tr>
<tr>
<td>CISC 181, Principles of Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>CISC 186, Visual Basic Programming</td>
<td>4</td>
</tr>
<tr>
<td>ECON 120, Principles of Economics I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 119, Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>CISC Elective(s)*</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units = 31

*Choose a minimum of 3 units in CISC. Students should consult with their counselor prior to choosing electives to ensure electives meet program and/or transfer goals.

Note: Only one Computer and Information Sciences (CISC) course from the above list may be used to satisfy SDCCD general education requirements.

For graduation requirements, see the Requirements for the Associate Degree on page 58.

Electives as needed to meet minimum of 60 units required for the degree:


Note: Some courses are not currently offered at Miramar, but are offered at City and/or Mesa Colleges. Please see a counselor.
Diesel Technology

Description
The diesel technology program provides the student with an opportunity to master the skills and knowledge required for success in servicing and maintaining diesel powered highway trucks, off-road heavy equipment, stationary engines, and marine craft. The two-year curriculum has three tracts which lead to a Certificate of Achievement, and three tracts which lead to an Associate in Science degree. In addition, the diesel program offers the Certificate of Completion in ten specialty areas. These certificates can be applied toward the Certificate of Achievement or the Associate in Science degree.

Program Learning Outcomes
The program is designed to prepare students for entry level employment as service technicians in the diesel powered equipment industry. Shop work is conducted in a manner consistent with industry standards regarding safety and hazardous material handling, shop organization and operation, use of hand and power tools, use of shop equipment, and the use of shop supplies and hardware. Hands-on experience is stressed, however, this is enriched with in-depth classroom instruction concerning theory of operation, service procedures, special tools, and troubleshooting. All classes emphasize critical thinking.

Faculty
Jim Lewis C-122 (619) 388-7526
Dan Willkie C-122 (619) 388-7527

Career Options
Employment may be found as a heavy-duty truck technician, heavy-equipment technician, power generation technician, and marine engine technician. Diesel technicians are employed by truck dealerships, heavy equipment dealerships, engine companies, equipment rental companies, trucking companies, truck leasing companies, bus companies, equipment rental companies, railroad companies, and independent engine and component rebuilding companies. Diesel technicians find employment in local, state, and national government agencies, boatyards and shipyards, construction, mining, agriculture, power generation, oil fields, off-shore drilling, and stand-by emergency power.

Academic Programs
The certificates of completion, certificates of achievement, and associate degrees require completion of the courses listed below.

Certificates of Completion: Diesel Technology*

Truck Drive Axles
Courses: Units
DIES 100, Introduction to Diesel Technology ........................................................ 2
DIES 105, Measuring Tools and Applied Mathematics ................................................ 2
DIES 170, Truck Drive Axles and Specifications ....................................... 3
Total Units = 7

Truck Transmissions and Clutches
Courses: Units
DIES 100, Introduction to Diesel Technology ........................................ 2
DIES 105, Measuring Tools and Applied Mathematics ................................................ 2
DIES 160, H.D. Transmissions .............................................................. 3
DIES 165, Truck Automatic Transmissions ........................................ 3
DIES 175, Truck Chassis R&R ........................................................... 3
Total Units = 13

Steering, Suspension, and Drivelines
Courses: Units
DIES 100, Introduction to Diesel Technology ........................................ 2
DIES 105, Measuring Tools and Applied Mathematics ................................................ 2
DIES 180, Steering, Suspension & Driveline Systems ........................................... 3
Total Units = 7

Truck Air Brake Systems
Courses: Units
DIES 100, Introduction to Diesel Technology ........................................ 2
DIES 105, Measuring Tools and Applied Mathematics ................................................ 2
DIES 155, Air Brake Systems .............................................................. 3
Total Units = 7

Truck & Equipment Electrical Systems
Courses: Units
DIES 100, Introduction to Diesel Technology ........................................ 2
DIES 138, Electrical Systems .............................................................. 3
DIES 144, Electronics for Diesel Technology ........................................ 3
Total Units = 8
Diesel Fuel Injection Systems

Courses: Units
DIES 100, Introduction to Diesel Technology ........ 2
DIES 137, Diesel Fuel Injection Systems ............... 2
DIES 144, Electronics for Diesel Technology .......... 3
Total Units = 7

*These are departmental awards in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Certificates of Achievement: Diesel Technology

Engine Overhaul, Detroit Diesel

Courses Required for the Major: Units
DIES 100, Introduction to Diesel Technology ........ 2
DIES 105, Measuring Tools and Applied Mathematics . 2
DIES 121, Diesel Engines A .................................. 7
DIES 123, Diesel Engines C .................................. 2
DIES 135, Applied Failure Analysis ....................... 3
DIES 137, Diesel Fuel Injection Systems ............... 2
Total Units = 18

Engine Overhaul, Four Stroke Cycle

Courses Required for the Major: Units
DIES 100, Introduction to Diesel Technology ........ 2
DIES 105, Measuring Tools and Applied Mathematics . 2
DIES 122, Diesel Engines B .................................. 7
DIES 123, Diesel Engines C .................................. 2
DIES 135, Applied Failure Analysis ....................... 3
DIES 137, Diesel Fuel Injection Systems ............... 2
Total Units = 18

Engine Repair, Detroit Diesel

Courses Required for the Major: Units
DIES 100, Introduction to Diesel Technology ........ 2
DIES 105, Measuring Tools and Applied Mathematics . 2
DIES 125, Diesel Engines I .................................... 4
DIES 135, Applied Failure Analysis ....................... 3
DIES 137, Diesel Fuel Injection Systems ............... 2
DIES 138, Electrical Systems ............................... 3
DIES 144, Electronics for Diesel Technology .......... 3
Total Units = 19

Engine Repair, Four Stroke Cycle

Courses Required for the Major: Units
DIES 100, Introduction to Diesel Technology ........ 2
DIES 105, Measuring Tools and Applied Mathematics . 2
DIES 126, Diesel Engines II ................................... 4
DIES 135, Applied Failure Analysis ....................... 3
DIES 137, Diesel Fuel Injection Systems ............... 2
DIES 138, Electrical Systems ............................... 3
DIES 144, Electronics for Diesel Technology .......... 3
Total Units = 19

Heavy Duty Transportation Technology (HDTT) (Day Program)

Courses Required for the Major: Units
DIES 100, Introduction to Diesel Technology ........ 2
DIES 105, Measuring Tools and Applied Mathematics 2
DIES 121, Diesel Engines A .................................. 7
DIES 122, Diesel Engines B .................................. 7
DIES 123, Diesel Engines C .................................. 2
DIES 138, Electrical Systems ............................... 3
DIES 144, Electronics for Diesel Technology .......... 3
DIES 155, Air Brake Systems ............................... 3
DIES 160*, H.D. Transmissions ............................. 3
DIES 165**, Truck Automatic Transmissions .......... 3
DIES 170, Truck Drive Axles and Specifications ...... 3
DIES 175*, Truck Chassis R&R ............................ 3
DIES 180, Steering, Suspension and Drive 
line Systems .................................................... 3
DIES 185, Power Trans A (HAT) 
(6 units in place of 160 and 175)
DIES 190, Power Trans B (HAT) 
(6 units in place of 165 and 200)
DIES 200**, Mobile Hydraulic Systems ............... 3
Total Units = 47

*Students may take DIES 185 (6 units) in place of 160 and 175.
**Students may take DIES 190 (6 units) in place of 165 and 200.

Heavy Equipment Technology (HET) (Day Program)

Courses Required for the Major: Units
DIES 100, Introduction to Diesel Technology ........ 2
DIES 105, Measuring Tools and Applied Mathematics 2
DIES 121, Diesel Engines A .................................. 7
DIES 122, Diesel Engines B .................................. 7
DIES 123, Diesel Engines C .................................. 2
DIES 138, Electrical Systems ............................... 3
DIES 144, Electronics for Diesel Technology .......... 3
DIES 160*, H.D. Transmissions ............................. 3
DIES 235, Power Trains C (HET) (6 units in place 
of 160 and 240)
DIES 245, Power Trains D (HET) (6 units in place 
of 200 and 230)
DIES 200**, Mobile Hydraulic Systems ............... 3
DIES 210, Brakes, Final Drives and Steering 
Systems ......................................................... 3
DIES 220, Undercarriage ..................................... 3
DIES 230**, Heavy Equipment Transmissions .......... 3
DIES 240*, Equipment Chassis R&R ..................... 3
Total Units = 44

*Students may take DIES 235 (6 units) in place of 160 and 240.
**Students may take DIES 245 (6 units) in place of 200 and 230.

**Students may take DIES 190 (6 units) in place of 165 and 200.

### Diesel Equipment Repair Technology
(Evening Program)

<table>
<thead>
<tr>
<th>Courses Required for the Major:</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIES 100, Introduction to Diesel Technology</td>
<td>2</td>
</tr>
<tr>
<td>DIES 105, Measuring Tools and Applied Mathematics</td>
<td>2</td>
</tr>
<tr>
<td>DIES 125, Diesel Engines I</td>
<td>4</td>
</tr>
<tr>
<td>DIES 126, Diesel Engines II</td>
<td>4</td>
</tr>
<tr>
<td>DIES 135, Applied Failure Analysis</td>
<td>3</td>
</tr>
<tr>
<td>DIES 137, Diesel Fuel Injection Systems</td>
<td>2</td>
</tr>
<tr>
<td>DIES 138, Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>DIES 144, Electronics for Diesel Technology</td>
<td>3</td>
</tr>
<tr>
<td>DIES 160, H.D. Transmissions</td>
<td>3</td>
</tr>
<tr>
<td>DIES 170, Truck Drive Axles and Specifications</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units = 32**

### Associate in Science Degrees:
**Diesel Technology**

### Heavy Duty Transportation Technology (HDTT) (Day Program)

<table>
<thead>
<tr>
<th>Courses Required for the Major:</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIES 100, Introduction to Diesel Technology</td>
<td>2</td>
</tr>
<tr>
<td>DIES 105, Measuring Tools and Applied Mathematics</td>
<td>2</td>
</tr>
<tr>
<td>DIES 121, Diesel Engines A</td>
<td>7</td>
</tr>
<tr>
<td>DIES 122, Diesel Engines B</td>
<td>7</td>
</tr>
<tr>
<td>DIES 123, Diesel Engines C</td>
<td>2</td>
</tr>
<tr>
<td>DIES 138, Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>DIES 144, Electronics for Diesel Technology</td>
<td>3</td>
</tr>
<tr>
<td>DIES 155, Air Brake Systems</td>
<td>3</td>
</tr>
<tr>
<td>DIES 160*, H.D. Transmissions</td>
<td>3</td>
</tr>
<tr>
<td>DIES 170, Truck Drive Axles and Specifications</td>
<td>3</td>
</tr>
<tr>
<td>DIES 175*, Truck Chassis R&amp;R</td>
<td>3</td>
</tr>
<tr>
<td>DIES 180, Steering, Suspension and Driveling Systems</td>
<td>3</td>
</tr>
<tr>
<td>DIES 200**, Mobile Hydraulic Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units = 44**

*Students may take DIES 235 (6 units) in place of 160 and 240).

**Students may take DIES 245 (6 units) in place of 200 and 230).

Note: Students in occupational curriculums must obtain a grade of “C” or better in each manipulation skills courses for the major.

For graduation requirements see **Requirements for the Associate Degree** on page 58.

Electives as needed to meet minimum of 60 units required for the degree:

**Recommended Electives:** Diesel Technology 90, 100, 105, 121, 122, 123, 125, 125A, 126, 135, 137, 137A, 138, 144, 155, 160, 165, 170, 175, 180, 185, 190, 200, 210, 220, 230, 235, 240, 245, 270; Computer Business Technology 103.

### Engineering
(See “Pre-Engineering” on page 164.)
English

Description
The English program provides a breadth of coursework that includes the study of the language and investigation of great works of literature, as well as the development of reading and writing expertise. It is devoted to advancing critical thinking and academic skills in the areas of reading, writing, and English for Speakers of Other Languages (ESOL). In reading, classes focus on vocabulary expansion, comprehension, and methods for long term learning. Writing classes cover grammar, composition, creative writing and research. ESOL classes cover academic English, including four levels of instruction in reading, writing, grammar, speaking, and listening. The English program also offers literature classes in British and American Literature, literature and film, women in literature, and world literature.

Program Learning Outcomes
The English program serves four areas of study. First, it is designed to prepare students for advanced work in the major, as well as transfer to four-year institutions. For this goal, courses cover the freshmen, and sophomore requirements for English majors, many of the GE requirements, including critical thinking, and preparation for English competency tests. Second, the program supports majors across the entire college curriculum where English is recognized as key to student success and students are advised to have successfully completed English prior to beginning studies in those areas. Third, the program provides the necessary courses for the Associate of Arts Degree. And fourth, the ESOL program provides training in English language development through the academic study of grammar, writing, listening and speaking, reading, and critical thinking, culminating in the award of an advanced ESOL Certificate of Completion.

Career Options
English serves as essential preparation for individuals preparing for careers in teaching, law, medicine, and business. For teachers, English provides training in the very skills - reading, writing and thinking - that every student must use at any level and in every field. For law and medicine, English provides solid preparation for the professional tasks of reading comprehension, recognition and recall of ideas and details, and analysis of cases. For those who seek a career in business, English provides the thinking, writing, and analytical skills private industry is seeking and that small business success depends on. In addition, the field of English serves the “service professions” in government, health, and social work, as well as any field requiring the use of written communications and technical manuals. Lastly, English prepares students for such “words delivery” professions as journalism, writing, publishing, translating, media and broadcasting, theater, and librarianship.

Academic Programs
The associate degree in English requires completion of the courses listed for the degree. Additional general education and graduation requirements for the associate degree are listed in the catalog. The associate degree requires a minimum of 60 units.

Transfer Information
Course Requirements for Transfer Students
Students who plan to transfer to a four-year college or university and earn a bachelor's degree in this discipline need to follow the preparation for the major on page 114 in the Transfer Studies Degree section of the catalog.

THIS DEGREE IS NOT INTENDED FOR TRANSFER

Associate in Arts Degree: English

Courses Required for the Major: Units
ENGL 101, Reading and Composition or
ENGL 105, Composition and Literature................. 3
*ENGL 205, Critical Thinking and
       Intermediate Composition......................... 3
ENGL 215, English Literature I: 800-1799 ............. 3
ENGL 216, English Literature II: 1800-Present ........ 3
**Select three units from:**
ENGL 208, Introduction to Literature
ENGL 220 Masterpieces of World Literature I: 1500 BCE - 1600 CE
ENGL 221 Masterpieces of World Literature II: 1600-Present

**Select three units from:**
ENGL 210, 211, 245, 247, 249 or 254

Total Units = 18

*Meets SDSU/CSU critical thinking requirement.

**Recommended series for UC transfer.

Not all courses are offered at each campus.

For graduation requirements see Requirements for the Associate Degree on page 58.

Electives as needed to meet minimum of 60 units required for the degree:
Recommended Electives: English 202, 209, 238, 240, 245, 247, 249, 253, 254; Humanities 101,102,201,202; Journalism 200,210A/B/C/D.

Courses designed to support this and other majors:
ESOL 19, 20, 21, 22, 30, 31, 32, 40.

Transferable Units as Prep for the Major at SDSU:
SDSU will accept a total of 12 units of literature and creative writing as preparation for the English Major. This includes any combination of lower division literature courses and up to six units of creative writing courses.

Note: Some courses are not currently offered at Miramar, but are offered at City and/or Mesa Colleges. Please see a counselor.

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**Fire Protection Technology**

**Fire - Emergency Medical - Lifeguards**

**Description**
The Fire Protection Technology department offers programs in a wide range of subject areas related to careers in the fields associated with the technology of fire protection, emergency medical training, rescue, and public safety employment. This program provides theory and training necessary for successful performance in a variety of settings and positions. Emphasis is placed on modern methods of fire prevention, fire suppression, fire service management, and public safety. Public and private fire protection systems, life safety of fire service personnel and civilians, protection of property through the application of code enforcement, and the increasing problems of hazardous materials, emergency medical services, rescue, urban interface, and arson are studied.

**Program Learning Outcomes**
Program options in the Fire Protection Technology department include Certificates of Completion in Fire Prevention, Fire Investigation, Emergency Medical Technician, Driver/Operator, Fire Safety Education, Fire Officer, Fire Protection, Rescue, Open Water Lifeguard Professional, and Fire Administration. Certificates of Achievement and Associate Degrees are available in Fire Protection, Fire Prevention, Fire Apparatus Driver/Operator, Fire Administration, Rescue, and Open Water Lifeguard Professional. The students are required to complete 30 units of fire protection technology courses for the Associate Degree. Fire Protection Technology 101,102,103, 104, and 105 are core courses for the certificate or degree program. It is highly recommended that pre-employment students concentrate on taking 100 level courses. Students may take either EMT course FIPT 130 or EMGM 105. Students planning to complete the California State Board of Fire Services Certification for Fire Officer should take the following courses: Fire Protection Technology 200A, 200B, 201, 202A, 202B, 203A, 204A, 204B, 310A, and 310B.

**Faculty**

<table>
<thead>
<tr>
<th>Name</th>
<th>Office</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larry Cooke</td>
<td>479-4</td>
<td>(619) 532-2932</td>
</tr>
<tr>
<td>Vacant</td>
<td>479-2</td>
<td>(619) 523-2931</td>
</tr>
<tr>
<td>Mary Kjartanson</td>
<td>479-3</td>
<td>(619) 388-7040</td>
</tr>
</tbody>
</table>
Career Options
A number of career options are accessible in the Fire Protection Technology and Public Safety fields. These employment positions are primarily in the public sector. However, the private sector provides employment opportunities that include but are not limited to: Fire insurance inspectors and investigators, Fire protection systems installers, Emergency medical services providers, Hazardous materials mitigation, Lifeguarding, and Fire protection engineering.

Academic Programs
Fire Protection Technology Certificates of Completion, Certificates of Achievement and Associate Degrees require completion of courses listed after each option. Additional general education and graduation requirements for the associate degree are listed in the catalog.

San Diego Fire Department Training Academy
The San Diego City Fire Department trains firefighter recruits in a 14 week, 9 unit, Fire Academy (FIPT 381) that is operated in conjunction with Miramar College. In each Fire Academy, usually 4 to 6 recruits are chosen by a lottery system from a pool of Miramar College Students. These “Open Enrollee” students earn no salary while in the Academy. To be eligible for the Open Enrollee lottery, student entrants must show evidence of having a minimum number of credit units at Miramar College. At present the requirements are as follows:

FIPT 101, Introduction to Fire Protection, 3 units
FIPT 105, Fire Behavior and Combustion, 3 units
and:
nomination of an Emergency Medical Technician - 1 Certificate, 6 units.

Requirements may change with each series of Academy Classes. Details are available in the Fire Technology Department office.

Certificate of Completion:

Driver/Operator*

Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIPT 109, Fire Service Hydraulics</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 111, Fire Apparatus and Equipment</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 113, Fire Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 210A, Driver Operator-Driving</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 210B, Driver Operator-Pumping</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Units = 13

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Certificate of Completion:

Emergency Medical Technician*

Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIPT 130, Emergency Medical Technician-State Fire Marshal</td>
<td>6</td>
</tr>
<tr>
<td>EMGM 105, Emergency Medical Technician-National Registry</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Total Units = 6.5

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Certificate of Completion:

Fire Administration*

Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIPT 101, Fire Protection Organization</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 108, Use of Microcomputers in the Fire Service</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 201, Fire Management I</td>
<td>2</td>
</tr>
<tr>
<td>BUSE 203, Business Organization and Management</td>
<td>3</td>
</tr>
<tr>
<td>CISC 181, Principles of Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 101, Reading and Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units = 17

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Certificate of Completion:

Fire Investigation (Basic)*

Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIPT 104, Building Construction for Fire Protection</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 105, Fire Behavior and Combustion</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 203A, Fire Investigation 1A</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 203B, Fire Investigation 1B</td>
<td>2</td>
</tr>
<tr>
<td>ADJU 162, Criminal Investigation</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 356A, 832 PC Laws of Arrest</td>
<td>2.5</td>
</tr>
<tr>
<td>ADJU 356B, 832 PC Firearms</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Units = 16.5

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.
### Certificate of Completion: Fire Protection Technology

**Fire Officer (Basic)**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIPT 200A, Fire Command 1A</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 200B, Fire Command 1B</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 202A, Fire Prevention 1A</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 202B, Fire Prevention 1B</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 203A, Fire Investigation 1A</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 204A, Instructor Training 1A</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 204B, Instructor Training 1B</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 201, Fire Management I</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Units = 16**

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

### Certificate of Completion: Fire Protection Technology

**Fire Officer (Intermediate)**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIPT 106, Truck Company Operations</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 107, Firefighting Tactics and Strategy</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 108, Use of Microcomputers in the Fire Service</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 110, Wildland Fire Control</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 205, Public Education I</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 101, Reading and Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units = 16**

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

### Certificate of Completion: Fire Prevention (Basic)

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIPT 102, Fire Prevention Technology</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 103, Fire Protection Equipment and Systems</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 104, Building Construction for Fire Protection</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 202A, Fire Prevention 1A</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 202B, Fire Prevention 1B</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 202C, Fire Prevention 1C</td>
<td>2</td>
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</tbody>
</table>

**Total Units = 15**

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

### Certificate of Completion: Fire Safety Education

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIPT 102, Fire Prevention Technology</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 204A, Instructor Training 1A</td>
<td>2</td>
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<tr>
<td>FIPT 204B, Instructor Training 1B</td>
<td>2</td>
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<tr>
<td>FIPT 202A, Fire Prevention 1A</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 202B, Fire Prevention 1B</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 202C, Fire Prevention 1C</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 205, Public Education I</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Units = 15**

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

### Certificate of Completion: Fire Service Manipulative Training

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIPT 100A, Intro to Fire Suppression and Maintenance Tasks (Beginning)</td>
<td>3.5</td>
</tr>
<tr>
<td>FIPT 100B, Intro to Fire Suppression and Maintenance Tasks (Intermediate)</td>
<td>3.5</td>
</tr>
<tr>
<td>FIPT 101, Fire Protection Organization</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 105, Fire Behavior and Combustion</td>
<td>3</td>
</tr>
<tr>
<td>ADJU 147, Physical Conditioning</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units = 14**

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.
Certificate of Completion:
Firefighter I Basic Academy*

To receive the Firefighter I Basic Academy certificate, the student must complete 15 units from the courses listed below. This can be achieved either by completing the FIPT 380F course for 15 units or by completing FIPT 381F (9 units) and either FIPT 130 or EMGM 105 (each 6 units), for a total of 15 units.

Courses: Units
FIPT 380F, Basic Fire Academy 1...........................15
OR
FIPT 381F, Basic Fire Academy 1............................ 9
AND
Select one course from the following:
FIPT 130, Emergency Medical Technician-State Fire Marshal or EMGM 105, Emergency Medical Technician-National Registry...................................................... 6
Total Units = 15

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Certificate of Completion:
Open Water Lifeguard Professional (Level I)*

Courses: Units
FIPT 160, Introduction to Open Water Lifeguarding .. 3
FIPT 309A, Emergency Care for the Sick and Injured......................................................1.5
ADJU 361, Current Issues for Advanced Officers .....0.5
Total Units = 5

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Certificate of Completion:
Open Water Lifeguard Professional (Level II)*

Courses: Units
FIPT 115, Low Angle Rescue ................................0.5
FIPT 163, Personal Watercraft Operations ............1.5
FIPT 130, Emergency Medical Technician-State Fire Marshal, or
EMGM 105, Emergency Medical Technician-National Registry ...................................................... 6
FIPT 243, Rescue Systems I ..................................1.5
FIPT 249, Rescue Systems II ________________________1.5
FIPT 256, Fire Command 2D _________________________2
FIPT 308A, Confined Space Operations .................... 1
FIPT 311M, Swiftwater Rescue Technician I ............. 1
Total Units = 15

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.

Certificate of Completion:
Rescue*

Courses: Units
FIPT 115, Low Angle Rescue ................................0.5
FIPT 121, Vertical Rescue .................................... 2
FIPT 130, Emergency Medical Technician-State Fire Marshall, or
EMGM 105, Emergency Medical Technician-National Registry ...................................................... 6
FIPT 243, Rescue Systems I ..................................1.5
FIPT 249, Rescue Systems II ________________________1.5
FIPT 256, Fire Command 2D _________________________2
FIPT 308A, Confined Space Operations .................... 1
FIPT 311M, Swiftwater Rescue Technician I ............. 1
Total Units = 15

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.
### Certificate of Achievement: Fire Protection Technology

#### Driver Operator (Advanced)

<table>
<thead>
<tr>
<th>Courses Required for the Major</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIPT 101, Fire Protection Organization</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 102, Fire Prevention Technology</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 103, Fire Protection Equipment and Systems</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 104, Building Construction for Fire Protection</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 105, Fire Behavior and Combustion</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 108, Use of Microcomputers in Fire Service (or equivalent computer course)</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 109, Fire Service Hydraulics</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 111, Fire Apparatus and Equipment</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 113, Fire Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 210A, Driver Operator - Driving</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 210B, Driver Operator - Pumping</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Units = 30**

### Certificate of Achievement: Fire Protection Technology

#### Fire Administration

<table>
<thead>
<tr>
<th>Courses Required for the Major</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIPT 101, Fire Protection Organization</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 102, Fire Prevention Technology</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 103, Fire Protection Equipment and Systems</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 104, Building Construction for Fire Protection</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 105, Fire Behavior and Combustion</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 108, Use of Microcomputers in Fire Service</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 201, Fire Management I</td>
<td>2</td>
</tr>
<tr>
<td>BUSE 201, Business Organization and Management</td>
<td>3</td>
</tr>
<tr>
<td>CISC 181, Principles of Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>ECON 120, Principles of Economics I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 101, Reading and Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units = 32**

### Certificate of Achievement: Fire Protection Technology

#### Fire Prevention (Intermediate)

<table>
<thead>
<tr>
<th>Courses Required for the Major</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101, Reading and Composition</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 101, Fire Protection Organization</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 102, Fire Prevention Technology</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 103, Fire Protection Equipment and Systems</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 104, Building Construction for Fire Protection</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 105, Fire Behavior and Combustion</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 108, Use of Microcomputers in Fire Service (or equivalent computer course)</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 202A, Fire Prevention 1A</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 202B, Fire Prevention 1B</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 202C, Fire Prevention 1C</td>
<td>2</td>
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<tr>
<td>FIPT 203A, Fire Investigation 1A</td>
<td>2</td>
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<tr>
<td>FIPT 203B, Fire Investigation 1B</td>
<td>2</td>
</tr>
<tr>
<td>FIPT 205, Public Education I</td>
<td>2</td>
</tr>
<tr>
<td>ADJU 356A, 832 PC Laws of Arrest</td>
<td>2.5</td>
</tr>
</tbody>
</table>

**Total Units = 30.5**
Certificate of Achievement:  
Fire Protection Technology  

Fire Protection (Basic)  

Courses Required for the Major: Units  
FIPT 100A, Intro to Fire Suppression and Maintenance Manipulative Tasks (Beginning) ... 3.5  
FIPT 100B, Intro to Fire Suppression and Maintenance Manipulative Tasks (Intermediate) 3.5  
FIPT 101, Fire Protection Organization ................. 3  
FIPT 102, Fire Prevention Technology .................. 3  
FIPT 103, Fire Protection Equipment and Systems ...... 3  
FIPT 104, Building Construction for Fire Protection ................................................. 3  
FIPT 105, Fire Behavior and Combustion ................. 3  
FIPT 106, Truck Company Operations ................... 3  
FIPT 107, Firefighting Tactics and Strategy .............. 3  
FIPT 110, Wildland Fire Control ................................................. 3  

Total Units = 31  

Certificate of Achievement:  
Fire Protection Technology  

Fire Protection (Intermediate)  

Courses Required for the Major: Units  
FIPT 130, Emergency Medical Technician-State Fire Marshal, or EMGM 105, Emergency Medical Technician-National Registry ................................................. 6  
FIPT 200A, Fire Command 1A .......................... 2  
FIPT 200B, Fire Command 1B .......................... 2  
FIPT 201, Fire Management I ........................... 2  
FIPT 202A, Fire Prevention 1A .......................... 2  
FIPT 202B, Fire Prevention 1B .......................... 2  
FIPT 203A, Fire Investigation 1A ........................ 2  
FIPT 204A, Instructor Training 1A .......................... 2  
FIPT 204B, Instructor Training 1B .......................... 2  
FIPT 381F, Basic Fire Academy ................................................. 9  

Total Units = 32  

Certificate of Achievement:  
Fire Protection Technology  

Fire Technology  

Courses Required for the Major: Units  
FIPT 100A, Intro to Fire Suppression and Maintenance Manipulative Tasks (Beginning) ... 3.5  
FIPT 101, Fire Protection Organization ................. 3  
FIPT 102, Fire Prevention Technology .................. 3  
FIPT 103, Fire Protection Equipment and Systems .... 3  
FIPT 104, Building Construction for Fire Protection .... 3  
FIPT 105, Fire Behavior and Combustion ................. 3  
FIPT 107, Firefighting Tactics and Strategy .............. 3  
FIPT 108, Use of Microcomputers in the Fire Service (or equivalent computer course) .......... 2  
FIPT 130, Emergency Medical Technician-State Fire Marshal, or EMGM 105, Emergency Medical Technician-National Registry ................................................. 6  

Total Units = 29.5  

Certificate of Achievement:  
Fire Protection Technology  

Open Water Lifeguard Professional  

Courses Required for the Major: Units  
FIPT 115, Low Angle Rescue ............................. 0.5  
FIPT 121, Vertical Rescue ................................. 2  
FIPT 130, Emergency Medical Technician-State Fire Marshal, or EMGM 105, Emergency Medical Technician-National Registry ................................................. 6  
FIPT 160, Introduction to Open Water Lifeguarding .. 3  
FIPT 161, Inflatable Rescue Boat Operations ........... 1.5  
FIPT 163, Personal Watercraft Operations ............. 1.5  
FIPT 204A, Instructor Training 1A .......................... 2  
FIPT 204B, Instructor Training 1B .......................... 2  
FIPT 243, Rescue Systems I ............................. 1.5  
FIPT 308A, Confined Space Operations ................. 1  
FIPT 311M, Swiftwater Rescue Technician I .......... 1  
ADJU 102, Criminal Law I ................................. 3  
ADJU 167, Report Writing .................................. 3  
ADJU 361, Current Issues for Advanced Officers ...... 0.5  
ADJU 356A, 832 PC Laws of Arrest ...................... 2.5  

FIPT 204A, Instructor Training 1A .......................... 2  
FIPT 204B, Instructor Training 1B .......................... 2  
FIPT 243, Rescue Systems I ............................. 1.5  
FIPT 310B, Intermediate Incident Command .......... 1  
FIPT 310C, Advanced Incident Command ............... 1  
FIPT 381F, Basic Fire Academy ........................... 9  

FIPT 130, Emergency Medical Technician-State Fire Marshal, or EMGM 105, Emergency Medical Technician-National Registry ................................................. 6  

FIPT 160, Introduction to Open Water Lifeguarding .. 3  
FIPT 161, Inflatable Rescue Boat Operations ........... 1.5  
FIPT 163, Personal Watercraft Operations ............. 1.5  
FIPT 204A, Instructor Training 1A .......................... 2  
FIPT 204B, Instructor Training 1B .......................... 2  
FIPT 243, Rescue Systems I ............................. 1.5  
FIPT 308A, Confined Space Operations ................. 1  
FIPT 311M, Swiftwater Rescue Technician I .......... 1  
ADJU 102, Criminal Law I ................................. 3  
ADJU 167, Report Writing .................................. 3  
ADJU 361, Current Issues for Advanced Officers ...... 0.5  
ADJU 356A, 832 PC Laws of Arrest ...................... 2.5
**Fire Protection Technology**

**Associate in Science Degree:**

**Fire Protection Technology**

**Driver Operator**

**Courses Required for the Major:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIPT 101</td>
<td>Fire Protection Organization</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 102</td>
<td>Fire Prevention Technology</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 103</td>
<td>Fire Protection Equipment and Systems</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 104</td>
<td>Building Construction for Fire Protection</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 105</td>
<td>Fire Behavior and Combustion</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 108</td>
<td>Use of Microcomputers in the Fire Service</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Units = 32**

**Recommended Electives:** ADJU 147, 356B.

**Fire Administration**

**Courses Required for the Major:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIPT 101</td>
<td>Fire Protection Organization</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 102</td>
<td>Fire Prevention Technology</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 103</td>
<td>Fire Protection Equipment and Systems</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 104</td>
<td>Building Construction for Fire Protection</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 105</td>
<td>Fire Behavior and Combustion</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 108</td>
<td>Use of Microcomputers in the Fire Service</td>
<td>2</td>
</tr>
<tr>
<td>BUSE 201</td>
<td>Business Organization &amp; Management</td>
<td>3</td>
</tr>
<tr>
<td>CISC 181</td>
<td>Principles of Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>Reading and Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Units = 32**

**Recommended Electives:** ADJU 147, ECON 121, BUSE 150.

**Fire Technology**

**Courses Required for the Major:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIPT 100A</td>
<td>Intro to Fire Suppression and Maintenance Tasks</td>
<td>3.5</td>
</tr>
<tr>
<td>FIPT 101</td>
<td>Fire Protection Organization</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 102</td>
<td>Fire Prevention Technology</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 103</td>
<td>Fire Protection Equipment and Systems</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 104</td>
<td>Building Construction for Fire Protection</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 105</td>
<td>Fire Behavior and Combustion</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 107</td>
<td>Firefighting Tactics and Strategy</td>
<td>3</td>
</tr>
<tr>
<td>FIPT 108</td>
<td>Use of Microcomputers in Fire</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Units =**

---

**San Diego Miramar College • 2003-2004**
FIPT 130, Emergency Medical Technician-State Fire Marshal or EMGM 105, Emergency Medical Technician-National Registry ........................................ 6
Total Units = 29.5

Recommended Electives: FIPT 106, 109, 110.

Associate in Science Degree: Fire Protection Technology

Open Water Lifeguard Professional

Courses Required for the Major: Units
FIPT 108, Use of Microcomputers in the Fire Service ........................................... 2
FIPT 115, Low Angle Rescue .................................. 0.5
FIPT 121, Vertical Rescue ..................................... 2
FIPT 130, Emergency Medical Technician-State Fire Marshal or EMGM 105, Emergency Medical Technician-National Registry ........................................ 6
FIPT 160, Introduction to Open Water Lifeguarding .. 3
FIPT 204A, Instructor Training 1A......................... 2
FIPT 204B, Instructor Training 1B ......................... 2
FIPT 311M, Swiftwater Rescue Technician I ............. 1
ADJU 102, Criminal Law I.................................. 3
ADJU 167, Report Writing ...................................... 3
ADJU 356A, 832 PC Laws of Arrest........................ 2.5
ADJU 361, Current Issues for Advanced Officers .......... 0.5
Total Units = 27.5

Recommended electives: FIPT 243, 249, 308A; ADJU 147, 356B.

Associate in Science Degree:
Fire Protection Technology

Fire Protection Technology

Courses Required for the Major: Units
FIPT 101, Fire Protection Organization ...................... 3
FIPT 102, Fire Prevention Technology ...................... 3
FIPT 103, Fire Protection Equipment and Systems .... 3
FIPT 104, Building Construction for Fire Protection .. 3
FIPT 105, Fire Behavior and Combustion............... 3
FIPT 115, Low Angle Rescue ................................ 0.5
FIPT 121, Vertical Rescue .................................... 2
FIPT 130, Emergency Medical Technician-State Fire Marshal, or EMGM 105, Emergency Medical Technician--National Registry ........................................ 6
FIPT 243, Rescue Systems I ................................ 1.5
FIPT 249, Rescue Systems II ................................ 1.5
FIPT 256, Fire Command 2D ................................ 2
FIPT 308A, Confined Space Operations .................... 1
FIPT 311M, Swiftwater Rescue Technician ............... 1
Total Units = 30.5

Geography

Description
Geography is a discipline classified as a natural science. It generally involves living and non-living materials and the principles of fundamental relationships and laws governing man in relationship to environment.

Program Learning Outcomes
The curriculum prepares students with basic concepts in geography, which provide the foundation for a degree at a baccalaureate institution. These courses also satisfy general education requirements at both the two and four-year institutions.

Faculty Office Telephone
Thomas Schilz B-302A (619) 388-7500

Career Options
Most careers in this discipline require education beyond the associate degree level. Bachelor degrees in geography prepare students for careers such as: environmental and planning agencies, consulting and cartographic firms, and non-profit organizations.

Transfer Information
Course Requirements for Transfer Students
Students who plan to transfer to a four-year college or university and earn a bachelor’s degree in this discipline need to follow the preparation for the major on page 114 in the Transfer Studies Degree section of the catalog.

History

Description
History is the study of human experience from the dawn of time to the present. It examines people, institutions, ideas, and events of the past and the present. The primary objectives of the History program are: to meet general education requirements for four-year institutions, American Institutions requirements, Social Sciences, and preparation for transfer to a four-year institution.

Program Learning Outcomes
The study of history develops cultural literacy, critical thinking, and other useful skills. The curriculum prepares students who wish to transfer into a baccalaureate degree program at a college or university. In addition, some of these courses fulfill requirements for general education and American Institutions at both the community and four-year colleges.

Faculty Office Telephone
Thomas Schilz B-302A (619) 388-7500
Terry Truitt B-302E (619) 388-7508

Career Options
Most careers related to this discipline require education beyond the associate degree level. A bachelor’s degree in history is a common preparation for application to law school. With advanced specialized coursework students may enter careers such as: teaching, historical research, or museum work.

Transfer Information
Course Requirements for Transfer Students
Students who plan to transfer to a four-year college or university and earn a bachelor’s degree in this discipline need to follow the preparation for the major on page 114 in the Transfer Studies Degree section of the catalog.
Humanities

Description
The study of humanities offers students a broad, interdisciplinary understanding of humankind's cultural heritage. This study includes: history, literature, philosophy, religion, and the arts. The goal of this major is to provide an interdisciplinary understanding of ideas and forms of expression that exert a major influence on civilization. The humanities provide a broadly-based education for many careers.

Program Learning Outcomes
The curriculum is intended to prepare students for advanced degrees at a baccalaureate institution. In addition it may also meet requirements for general education at both the two and four-year colleges and universities.

Faculty Office Telephone
Gregory Carrier B-403I (619) 388-7518

Career Options
Most careers related to this discipline require education beyond the associate degree level. Humanities degrees are for students who wish to base their careers on broad knowledge of American and world cultures. This major is applicable to posts in government, business, education, and the arts. Additional specialized training can lead to careers in foreign career service, museum work or teaching.

Transfer Information
Course Requirements for Transfer Students
Students who plan to transfer to a four-year college or university and earn a bachelor's degree in this discipline need to follow the preparation for the major on page 114 in the Transfer Studies Degree section of the catalog.

Legal Assistant
(Paralegal)

Description
The Legal Assistant (Paralegal) program provides professional training focusing on occupational competency. Paralegals perform substantive and procedural legal work as authorized by law, which work, in absence of the paralegal, would be performed by an attorney. Paralegals have knowledge of the law gained through education and work experience which qualifies them to perform legal work. Paralegals adhere to recognized ethical standards and rules of professional responsibility.

Program Learning Outcomes
The Legal Assistant program offers both an Associate in Science Degree and a Certificate of Achievement in compliance with the American Bar Association (ABA) standards.

Faculty Office Telephone
P. Darrel Harrison A224 (619) 388-7892 dharriso@sdccd.net
Rob Dekoven A224 (619) 388-7892 rrd@cwsL.edu
Ron Stormoen A224 (619) 388-7892 stormoen@pacbellnet
Kathlene Somerville A224 (619) 388-7892 somelaw@cts.com

Career Options
The Legal Assistant program prepares students with the basic skills necessary for an entry level position as a paralegal. Paralegals in San Diego work for private law firms, banks, corporations, insurance agencies, legal clinics, courts, government agencies, accounting and engineering firms, title companies, construction companies, and legal aid offices - in fact, almost everywhere law-related work is performed.
Academic Programs
In addition to the general education and graduation requirements listed in this catalog, the Associates in Science degree as a Legal Assistant requires completion of the core courses (15 units), legal specialty courses (9 units) and law related courses (6-10 units).

Legal Assistant Core Curriculum

Courses Required for the Major: Units
LEGL 100, Legal Procedures .................................. 3
LEGL 105, Legal Research ..................................... 3
LEGL 110, Legal Writing & Communications ............. 3
LEGL 115, Civil Litigation I................................. 3
LEGL 120, Civil Litigation II ............................... 3
Total Units = 15

Associate in Science Degree:
Legal Assistant (Paralegal)

Courses Required for the Major: Units
Core Curriculum .................................................15
Select nine units from the following legal specialty courses:
LEGL 140, 145, 150, 160, 165, 170, 175, 180 .......... 9
Select six to ten units from the following law-related courses:
Administration of Justice 102, 160, 230;
Business 140; Real Estate 105;
Labor Studies 112*;
Computer Business Technology 221, 222;
Accounting 116A, 120 .....................................6-10
Total Units = 30-34

*Offered at City College only.

For graduation requirements see Requirements for the Associate Degree on page 58.

Electives as needed to meet minimum of 60 units required for the degree:
Recommended Elective: Legal Assistant 210, 296.

Certificate of Achievement:
Legal Assistant (Paralegal)

This option is only available to students entering the program who have completed all general education core requirements through coursework received by either an Associates in Arts degree or a Bachelor's degree. The Certificate of Achievement requires completion of the core courses (15 units), legal specialty courses (9 units) and law related courses (6-10 units).

Liberal Arts

Designed for students who wish a broad knowledge of liberal arts. This flexible major can be taken by students who wish to earn a general associate degree. It is also appropriate for transfer students. Those planning to transfer to a four-year institution should consult a counselor.

Caution: Because admission and major preparation requirements vary at each UC, CSU, and private institution, it is strongly advised that students meet with a counselor to determine the specific admissions and major preparation requirements of the selected transfer institution.

Associate in Arts Degree:
Liberal Arts

Option I Units
Courses Required for the Major: 39-40
The student will select courses that conform to the CSU General Education area requirements. Refer to “Certification of CSU General Education Breadth Requirements” on page 66 of this catalog.

Option II Units
Courses Required for the Major: 34-38
The student will select the core general education courses that conform to the SDCCD-UCSD Transfer Admission Guarantee (TAG) agreement. Courses taken under this agreement are guaranteed to apply toward the completion of college general education requirements at UCSD.

The core requirements for general education are one year of a transferable sequence in the following areas: (a) writing, (b) the humanities, (c) the social sciences, (d) foreign language, and (e) mathematics or a natural science. For more information, see a counselor.

Option III Units
Courses Required for the Major: 37-40
The student will select courses that conform to the Intersegmental General Education Transfer Curriculum
(IGETC) area requirements. For specific information, see a counselor.

Transfer Information
Students planning to transfer to a four-year college or university should complete courses required for the university major and the general education pattern required by that transfer institution. See catalog Associate in Arts Degree: Transfer Studies with Preparation for the Major. Additional courses may be required to meet university lower-division requirements. Course requirements at the transfer institution are subject to change and may be verified by a counselor or by consulting the current university catalog. Many Baccalaureate in Arts degrees require third semester competency in a foreign language, Consult the current catalog of the transfer institution and consult with a counselor.

Mathematics

Description
Mathematics is the study of numbers, structures, and associated relationships using rigorously defined literal, numerical and operational symbols. Given certain conditions about systems of numbers or other objects, mathematicians derive conclusions based on logical arguments. Basic mathematical skills enable a person to solve numerical problems encountered in daily life, and more advanced skills have numerous applications in the physical, social and life sciences.

Program Learning Outcomes
The mathematics curriculum includes courses that range from basic skills through differential equations. The basic skills and associate degree level courses provide students with the mathematical preparation necessary for study in other disciplines, as well as for degree and transfer requirements. Successful completion of this curriculum a mathematics degree will develop competence in mathematics through differential and integral calculus, providing an adequate background for employment in many technological and scientific areas as well as providing a firm foundation for students planning advanced study in mathematics, engineering, or physical sciences.

Faculty
Michael Charles I-102B (619) 388-7704
Norris Charles B-403D (619) 388-7513
Yolanda James I-102B (619) 388-7690
Arashmidos Monjazeb I-102A (619) 388-7688
Carol Murphy I-102B (619) 388-7681
Ronald Page I-104C (619) 388-7705
Wayne Sherman I-102A (619) 388-7689
Harvey Wilensky B-403A (619) 388-7510

Career Options
Most of these occupations require education beyond the associate degree, and some may require a graduate degree. The following list is not intended as a comprehensive list of career options in mathematics: actuary, appraiser, assessor, auditor, biometrician, budget analyst, controller, computer analyst, computer programmer, demographer, econometrician, engineering
analyst, epidemiologist, financial analyst, investment analyst, management scientist, operations researcher, research mathematician, statistician, surveyor, systems analyst, teacher, technical writer, and urban planner.

**Transfer Information**

**Course Requirements for Transfer Students**
Students who plan to transfer to a four-year college or university and earn a bachelor’s degree in this discipline need to follow the preparation for the major on page 115 in the Transfer Studies Degree section of the catalog.

**Description**
Undergraduate major programs are designed to serve as background for professional careers in music, as preparation for graduate studies, or as an area of concentration for a liberal arts education.

**Program Learning Outcomes**
While the music curriculum is small, it offers course work that meets the humanities requirement for general education for both the associate degree and baccalaureate degrees. In addition, students can pursue the development of skills in basic musicianship and electronic music.

**Faculty Office Telephone**
Channing Booth B-402E (619) 388-7511

**Career Options**
Most careers related to this discipline require education beyond the associate degree level. Examples of professional careers in this field are: conducting, performing, teaching, coaching, editing, or arranging.

**Certificate of Completion:**

**Digital Music**
This Certificate of Completion in Digital Music prepares the student for work in the music industry including: music, television, film, radio and internet applications and work environments. Digital Music: technology, engineering, composition and producing skills will be covered in detail.

**Courses:**
- MUSI 190, The Electronic Music Studio ................. 3
- MUSI 202, Computer Music ................................... 3
- MUSI 201, Recording Arts..................................... 3
- MUSI 205A, Projects in Electronic Music ................. 3
- MUSI 205B, Projects in Electronic Music ................. 3

*Total Units = 15*

*This is a department award in recognition of information on the transcript and does not imply that a graduation requirement has been met.*
Transfer Information

Course Requirements for Transfer Students
Students who plan to transfer to a four-year college or university and earn a bachelor’s degree in this discipline need to follow the preparation for the major on page 115 in the Transfer Studies Degree section of the catalog.

Physical Education

Description
Physical Education is a discipline focusing on the relationship between physical activity and physical, mental, emotional, and social health. Physical activity courses teach movement skills, enhance fitness, and engender a lifestyle consistent with optimal wellness.

Program Learning Outcomes
The Department of Physical Education offers an ever-increasing variety of activity courses. Boasting facilities that include a 32-acre complex of fields for softball, soccer, sand volleyball, and tennis, the Department also offers classes in a state of the art three pool aquatic complex. The recent curricular addition of lower division theory courses now allows students to pursue the Transfer Studies degree in Physical Education.

Faculty
Kas Metzler P-101B (619) 388-7714
Kevin Petti B-301 (619) 388-7491
June Scopinich P-101B (619) 388-7715

Career Options
Most Physical Education career options require baccalaureate degrees and some may require graduate degrees. Some of the exciting fields open to physical educators include: athletic trainer, physical therapist, health/fitness club manager, physical education instructor, coach, athletic administrator, recreation director, resort activities director, and sports journalist.

Transfer Information

Course Requirements for Transfer Students
Students who plan to transfer to a four-year college or university and earn a bachelor’s degree in this discipline need to follow the preparation for the major on page 115 in the Transfer Studies Degree section of the catalog.
**Political Science**

**Description**
The primary objectives of the Political Science program are: to meet general education requirements for four-year institutions, American Institutions requirements, Social Sciences, and preparation for transfer to a four-year institution. The study of political science develops cultural literacy, critical thinking, and other useful skills. Political Science is the study of human behavior as it relates to political situations. It involves the examination of institutions, processes, people, ideas and policies.

**Program Learning Outcomes**
The curriculum offers four courses in Political Science: Political Science 101, 102, 103, and 104. These courses prepare students for transfer and advanced study at baccalaureate institutions. In addition, courses may fulfill requirements for general education and as well as American Institutions.

**Faculty Office Telephone**
Robert Bacon  C-202A (619) 388-7531  
Steven Coons  C-302B (619) 388-7505

**Career Options**
Career preparation in political science generally requires training beyond the associate and often the bachelor’s degree. This field is commonly chosen as preparation for law school. In addition, an advanced degree prepares students for work such as: public administration, city planning, diplomatic corps, legislative aide, lobbyist, political scientist, and teacher.

**Course Requirements for Transfer Students**
Students who plan to transfer to a four-year college or university and earn a bachelor’s degree in this discipline need to follow the preparation for the major on page 116 in the Transfer Studies Degree section of the catalog.

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**Pre-Engineering**

**Description**
The engineering curriculum gives students both the understanding of fundamental principles of engineering as an applied science and the practical expertise to apply these principles to actual situations. There is a heavy emphasis on basic science, mathematics and engineering science. Engineering is a field that incorporates a variety of disciplines - aerospace, chemical, civil, electrical, industrial manufacturing, material, mechanical, and electronics and computer.

**Program Learning Outcomes**
The Pre-Engineering curriculum provides the chemistry, mathematics and physics required for pre-engineering majors planning to transfer to four-year engineering programs. Engineering courses required for specific engineering majors may be taken at San Diego City or Mesa College.

**Career Options**
The transfer studies associate degree in Pre-Engineering provides a solid academic base for transferring into an engineering program, or a number of other science-based programs such as biology, physics, or computer sciences. The bachelor's degree in engineering incorporates a variety of disciplines - aerospace, chemical, civil, electrical, industrial manufacturing, material, mechanical, and electronics and computer.

**Faculty Office Telephone**
Gina Bochicchio  B-301E (619) 388-7496

**Transfer Information**

**Course Requirements for Transfer Students**
Students who plan to transfer to a four-year college or university and earn a bachelor’s degree in this discipline need to follow the preparation for the major on page 114 in the Transfer Studies Degree section of the catalog.

*Note: Some courses are not currently offered at Miramar, but are offered at City and/or Mesa Colleges. Please see a counselor.*
Psychology

Description
Psychology is a behavioral science that emphasizes the understanding of behavior (feelings, actions, and thoughts) of individuals. It should be noted that psychology typically focuses on the study of humans though psychologists have interests in other species. Psychology as a science is most closely related to the biological sciences, although its application often involves persons and cultural/philosophical beliefs or values. Students who major in psychology are expected to be able to think critically and scientifically about behavior, and be able to apply the principles of psychology to the understanding of behavior.

Program Learning Outcomes
The psychology program has two primary goals. The first is to provide the basic courses that are foundations for further understanding of other courses in psychology and related fields as well as preparation for transfer to other institutions for further study. The second goal is to provide courses that may include additional information regarding psychology that are of general interest to the community and college students or are applications of psychological principles.

Faculty Office Telephone/EMail
Kenneth M. McPherson B-403G (619) 388-7516 kmcpher@sdccd.net
Mary Lee Meiners B-101B (619) 388-7463 mleemein@sdccd.net

Career Options
Most career options directly related to psychology require graduate level degrees. However, there are several applied and paraprofessional occupations that may not require education beyond the associate degree. The following is a sample of the many career options available with additional preparation in this major beyond the associate degree: advertising researcher, school counselor, drug abuse counselor, employment counselor, manager, marriage and family counselor, mental health worker, personnel analyst, probation officer, police officer, psychometrist, and research. An undergraduate degree in psychology may be an important asset to majors in other fields.

Transfer Information
Course Requirements for Transfer Students
Students who plan to transfer to a four-year college or university and earn a bachelor’s degree in this discipline need to follow the preparation for the major on page 116 in the Transfer Studies Degree section of the catalog.
Selected Studies

Designed for students who are interested in a program of studies that will allow them to attain educational or career goals that are not satisfied by associate degrees offered in Degree Curricula and Certificate Programs listed in this catalog.

Associate in Arts Degree: Selected Studies

Courses Required for the Major:
The student must earn a minimum of 18 required semester units in a single discipline or related disciplines. The approved course of study represents a cohesive and rigorous program of instruction related to a specific goal not met by other Programs of Instruction as found in this catalog. The student and a counselor will develop a Selected Studies program to be submitted to an academic standards committee for review and approval. The student is encouraged to meet with the counselor early in his or her educational career to review the student's statement of justification for the Associate in Arts Degree: Selected Studies and to develop an education plan.

Only one course from the approved pattern for the Selected Studies major may be used to satisfy SDCCD general education requirements. Students must fulfill additional requirements for the Associate Degree as listed in this catalog.

For graduation requirements see Requirements for the Associate Degree on page 58.

Electives as needed to meet minimum of 60 units required for the degree:
Recommended Electives: Electives are particularly important in this program. They may be used by the student to strengthen the major, explore new fields of interest, and satisfy graduation requirements at a four-year institution.

The student who plans carefully may fulfill the requirements for the A.A. Degree and also complete most lower division requirements at the four-year institution of his/her choice in the major area and in general education. See generalized guide for transfer students located in this catalog.
**Sociology**

**Description**
Sociologists study the behavior of humans as they interact in varied groups: families, communities, sports, industrial organizations, and institutions such as schools, hospitals, and social service agencies. They explore social issues, such as social stratification, deviant behavior, cultural differences, effects of mass media, urban organization, educational systems and mental health. The focus is on how behavior is influenced by societal structures and how consensus and conflict among groups affects society.

**Program Learning Outcomes**
The curriculum prepares students to transfer to baccalaureate Institutions. In addition, courses maybe applied to meet the Requirements for general education at both the two and four-year colleges.

**Faculty Office Telephone**
Corrie D. Ort B302B (619) 388-7501

**Career Options**
Most career options for majors require graduate level degrees. Graduates with advanced degrees enter careers such as: advertising, research, college teaching, community organizing, criminology, probation officer, public administration, social scientist, social work, and urban and regional planning.

**Transfer Information**

**Course Requirements for Transfer Students**
Students who plan to transfer to a four-year college or university and earn a bachelor's degree in this discipline need to follow the preparation for the major on page 116 in the Transfer Studies Degree section of the catalog.

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**Spanish**

**Description**
The study of Spanish builds communication skills, provides exposure to the richness of cultural variety; meets baccalaureate degree language requirements; broadens career opportunities enriches global travel; provides personal enrichment, and prepares students for upper division work in a baccalaureate institution.

**Program Learning Outcomes**
Students develop skills of understanding, speaking, reading, and writing. They also become acquainted with the culture, literature, history and current events of Spanish speaking countries. The curriculum focuses on preparing students for transfer to baccalaureate institutions and for proficiency in Spanish in a variety of settings.

**Faculty Office Telephone**
April Koch C-202G (619) 388-7537
Virginia Naters C-202G (619) 388-7538

**Career Options**
Many students pursue an associate degree in Spanish to add language skills in their field of work. Degrees beyond the associate level lead to careers such as: working in local and state agencies, multinational companies, international marketing and consulting firms, international banking, advertising, journalism, media and entertainment, travel and tourism, hotel and restaurant industries, and health care.

**Transfer Information**

**Course Requirements for Transfer Students**
Students who plan to transfer to a four-year college or university and earn a bachelor's degree in this discipline need to follow the preparation for the major on page 116 in the Transfer Studies Degree section of the catalog.
Speech Communications

Description
Communication is the study of human interaction in the verbal and non-verbal arena. It describes, explains, and depicts the various elements that influence communication such as age, gender, culture, settings, and circumstance. Communication provides a foundation for success in an individual’s personal, social and professional roles.

Program Learning Outcomes
The curriculum focuses on preparing students with basic concepts in Speech Communication, which provides the foundation pursuing a baccalaureate degree. Courses will also satisfy requirements for general education at both the two and four-year institutions. Students planning to major in a communications field should prepare themselves with courses that complement that major.

Career Options
Most careers require degrees beyond the associate level. Graduates with advanced degrees have secured positions such as: customer relations officers, public relations managers, human resources trainers, employment specialists, marketing representatives, broadcasters, and sales representatives.

Transfer Information

Course Requirements for Transfer Students
Students who plan to transfer to a four-year college or university and earn a bachelor’s degree in this discipline need to follow the preparation for the major on page 113 in the Transfer Studies Degree section of the catalog.

Transfer Programs
(See “Transfer Guide” on page 71.)

Teacher Education Preparation

At the time of catalog print, these programs were in the process of being revised. Students should check with the Counseling Department or Transfer Center for current information.
The apprenticeship training program provides an opportunity for a balanced approach of on-the-job training and related technical instruction to achieve the position of journeyperson in one of the state-approved programs. The length of the program depends on the trade selected and can range from two to five years. The program encourages the transfer of skills and knowledge from master journeymen and journeywomen to apprentices to further employment potential in their trade. The California state system was established in 1939 with the passage of the Shelley-Maloney Apprenticeship Labor Standards Act. This act established the California Apprenticeship Council as the policy-making body; named the State Director of Industrial Relations as the administrator of apprenticeship; authorized the Division of Apprenticeship Standards (DAS) to approve training standards and provide assistance in the development of apprenticeship programs; and assigned responsibility for related and supplemental training to state and local boards responsible for vocational education.

Affirmative Action Statement
The Apprenticeship Committees for whom the District provides related and supplemental instruction have indicated they do not and will not discriminate against any employee or against any applicant for employment because of age, race, color, religion, handicap, ancestry, sex or national origin.

Admission To The Program
Indenture in a state-approved apprenticeship program is a required prerequisite to enroll in the apprenticeship related and supplemental classes. Applicants for apprenticeship should contact the employer, program coordinator or labor union listed before each program in the apprenticeship course description section of the catalog. Each of the individual programs listed in the apprenticeship course description section of this catalog is administered by an apprenticeship committee made up of member representatives from the respective trades or industries. This committee serves as the approval body for all apprenticeship matters relating to the particular trade.

Completion Requirements
In addition to the academic requirements listed below, each apprentice must complete the prescribed number of hours of training during the period of the apprenticeship program as approved by the Apprenticeship Committee to receive the certificate of achievement or two-year degree.

San Diego City Civil Service Equipment Mechanic Apprenticeship
A four-year apprenticeship program in equipment mechanic trades at the City of San Diego. Applications accepted at the City Administration Building, Community Concourse, 202 C Street, San Diego, CA 92101.

Equipment Mechanic Apprenticeship Certificate of Achievement Requirements:

Courses Required for the Major: Units
AUTO 154, Suspension and Steering Systems ........... 4
AUTO 114A, Engine and Related Systems ............ 3
DIES 100, Introduction to Diesel Tech ............ 2
DIES 135, Applied Failure Analysis ............ 3
DIES 137, Diesel Fuel Injection Systems ........ 2
DIES 138, Electrical Systems ............ 3
DIES 155, Air Brake Systems ............ 3
DIES 160, H.D. Transmission ............ 3
DIES 170, Truck Drive Axles and Specifications ........................................ 3
SDCS 349I, Equipment Mechanic Apprentice Work Experience ........................................ 16
Total Units = 42

Equipment Mechanic Apprenticeship Associate in Science Degree Requirements:

Courses Required for the Major: Units
AUTO 154, Suspension and Steering Systems ........... 4
AUTO 114A, Engine and Related Systems ............ 3
DIES 100, Introduction to Diesel Tech ............ 2
DIES 135, Applied Failure Analysis ............ 3
DIES 137, Diesel Fuel Injection Systems ........ 2
DIES 138, Electrical Systems ............ 3
DIES 155, Air Brake Systems ............ 3
DIES 160, H.D. Transmission ............ 3
DIES 170, Truck Drive Axles and Specifications ........................................ 3
SDCS 349I, Equipment Mechanic Apprentice Work Experience .................................................. 16

**Total Units = 42**

Additional general education and graduation requirements for the associate degree are listed in the Academic Requirements section of catalog. The associate degree requires a minimum of 60 units.

**Recommended Electives:** Diesel Technology 105, 144, Automotive Technology 64, 152, 195.
Course Descriptions
General Course Information

Not all courses listed will be offered each semester, and San Diego Miramar College reserves the right to cancel any course if enrollment in such course is below a minimum number as set by the San Diego Community College District Board of Trustees. The hours indicated at the beginning of each course description, except where otherwise specified, denote the total number of clock hours the class meets each week.

Students enrolled in occupational and health occupation programs must earn a grade of “C” or better in courses required for the major.

Only one course in a student's major discipline may be used to meet the San Diego Community College district general education requirement.

Course Numbering System
The course numbering system has meaning with regard to level and transfer. See the description below:

- **1-49** Basic Skills or college preparatory courses. Credit does not apply toward an associate degree or transfer to a four-year college or university.

- **50-99** Course credit applies toward the associate degree but does not transfer to a four-year college or university.

- **100-299** Course credit applies toward the associate degree and credit is intended for transfer to a four-year college or university. (Some courses may be identified as associate degree.) Final decision in regard to transferability rests with the receiving institution.

- **300-399** Apprenticeship and in-service courses that may also count toward the associate degree, but credit may transfer.

Apprenticeship 345, 349, 349-D, DSPS 065, Field Experience/Internship 275, Independent Study 290, Individualized Instruction 296, Special Topics 23, 63, 265, Tutoring 044, and Work Experience courses 270, 272, 274, have Districtwide designated numbers.

Prerequisites, Corequisites, and Limitations on Enrollment
All prerequisites, corequisites, and limitations on enrollment stated in the course descriptions listed in this catalog will be strictly enforced by ClassTalk and Reg-e at the time of registration. Students who do not meet the prerequisite, corequisite, or other limitation according to the college's records, will not be permitted to register for the course. Students are strongly advised to have all transcripts of prior college work and other documentation on file well in advance of registration. This will minimize registration delays.

Students should plan their schedule early and see a counselor for assistance.
Students may challenge a prerequisite, corequisite or limitation on enrollment. Contact the Admissions Office to obtain a Petition to Challenge and a copy of Procedures 5500.2. The completed petition must be filed no later than ten working days prior to the published add deadline for the course being challenged.

Generic Course Information
Any discipline or department may offer the courses listed below which do not appear individually in the catalog. If applicable to a particular subject area, it will be listed under the appropriate departmental heading (subject indicator) in the college class schedule. For further information, please check with the instructor or department chair.

Supervised Tutoring (044)
Supervised tutoring courses are available in each discipline. To enroll in a supervised tutoring course, a student must be enrolled in a college or basic skills course in the respective discipline. The courses are designed to prepare the student to succeed in the corequisite or subsequent courses. Supervised tutoring may be taken four times, each time with a different corequisite. Credit does not apply to the associate degree.

Applied Application and Software Skills (045L)
This is an open entry/open exit supplemental course designed to assist students to succeed in completing computer assignments in a companion course. This course may be taken four times with different companion subject-matter courses as needed. Credit does not apply to the associate degree.

Special Topics Courses (265)
Special topics courses that examine current problems or issues of interest may be offered in some disciplines. See the class schedule for specific titles and course details.

Work Experience (270)
Program of on-the-job learning experiences for students employed in a job related to the major. The combined maximum credit for all work experience courses from all
disciplines may not exceed 16 units. To receive credit, a student must complete a minimum of seven units during the semester, including work experience. Transfer Credit: CSU and/or private coll/univ.

**Service Learning**

Students gain hands-on experience in project planning, development, implementation and evaluation. Students meet weekly to receive support training and development opportunities regarding best practices in Service Learning. The service-learning options are as follows:

**Service Learning - High School Projects (277A)**

Students in this course develop and implement service-learning projects to help high school students under the supervision of college faculty and in cooperation with high school teachers, counselors and resource teachers. Projects may include collaboration with high school classes, educational projects for high school students, mentoring, and shadowing. This course is intended for students from any discipline who are interested in project development, development of teaching skills, or enhancement of communication and planning skills. Course segments may be taken in any order. The combined credit for all 277A discipline courses may not exceed three units. Transfer Credit: CSU and/or private coll/univ.

**Elementary and High School Projects (277B)**

Students in this course develop and implement service-learning projects to help elementary and junior high school students under the supervision of college faculty and in cooperation with elementary and junior high school teachers, counselors and resource teachers. Projects may include collaboration with elementary and junior high school classes, educational projects for elementary and junior high school students, mentoring, and shadowing. This course is intended for students from any discipline who are interested in project development, development of teaching skills, or enhancement of communication and planning skills. Course segments may be taken in any order. The combined credit for all 277B discipline courses may not exceed three units. Transfer Credit: CSU and/or private coll/univ.

**Service Learning - Community (277C)**

Students in this course develop and implement service-learning projects to help the college’s community under the supervision of college faculty and in cooperation with off-campus community organizations and educational service oriented projects for the college’s community. This course is intended for students from any discipline who are interested in project development, development of teaching skills, or enhancement of communication and planning skills. Course segments may be taken in any order. The combined credit for all 277C discipline courses may not exceed three units. Transfer Credit: CSU and/or private coll/univ.

**Service Learning - On Campus (277D)**

Students in this course develop and implement service-learning projects to help the college’s students under the supervision of college faculty and in cooperation with college counselors and staff. Projects may include collaboration with college classes, educational projects for college students, mentoring, and shadowing. This course is intended for students from any discipline who are interested in project development, development of teaching skills, or enhancement of communication and planning skills. Course segments may be taken in any order. The combined credit for all 277D discipline courses may not exceed three units. Transfer Credit: CSU and/or private coll/univ.

**Independent Study (290)**

This course is for students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course in the discipline. In this course students will have a written contract with their instructor for activities such as: preparing problem analysis, engaging in primary research, preparing reports, and meeting with the instructor at specific intervals. This course may be taken four times with different content, for a maximum of six units. The credit may be used for the associate degree and the courses are transferable to four-year institutions.

**Individualized Instruction (296)**

This course provides supplemental instruction to reinforce achievement of the learning objectives of a course in the same discipline under the supervision of the instructor of the designated course. Learning activities may employ a variety of self-paced multimedia learning systems, language labs, print and electronic resources, laboratory, or field research arrangements, to assist student in reaching specific learning objectives. This open entry/open exit course is offered concurrently with designated courses. The credit may be used for the associate degree and the courses are transferable to four-year institutions.
Explanation of Terms
Courses in the San Diego Community College District which transfer to public four-year universities in California are identified at the end of each course description with the following statements:

Transfer Credit: CSU and/or private coll/univ.; UC: Course is certified for transfer to the 20 campuses of the California State University and to the 9 campuses of the University of California.

Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor: Course is certified for transfer to California State University campuses and will transfer to the University of California campuses with some restrictions. Students should see a counselor concerning these limitations.

The UC system limits the credit that will be accepted for Art, Music, Drama (Theater Arts), Computer Science, Engineering, and Independent Study courses. It is expected that students will plan their transfer program carefully and enroll in general education as well as courses preparatory for their intended major at UC. If you have questions, please see a counselor.

Transfer Credit: CSU and/or private coll/univ.: Course is certified for transfer to California State University campuses.

CAN: The notation CAN stands for California Articulation Number. The course is accepted at other participating campuses (See page 101).

Information concerning transferability to CSU or UC systems is based on information available at the time the catalog is printed. For the latest information, see a counselor. Other symbols include:

Field Trip: (FT) All courses identified at the end of the course description with the symbol (FT) may have field trips required. Detailed information concerning costs incurred will be provided by the instructor.

Physical Education Classes/Intercollegiate Sports-disclaimer
Participation in all sports and physical education activities involves certain inherent risks. Risks may include, but are not limited to, neck and spinal injuries that may result in paralysis or brain injury, injury to bones, joints, ligaments, muscles, tendons and other aspects of the muscular skeleton system; and serious injury, or impairment, to other aspects of the body and general health, including death. The San Diego Community College District, its officers, agents and employees are not responsible for the inherent risks associated with participation in physical education classes/intercollegiate sports. Students are strongly advised to consult a physician prior to participating in any physical education activity.
**102 Basic Accounting**

3 hours, 3 units  
Grade Only

*Advisory:* Mathematics 35 with a grade of “C” or better, or equivalent, or Assessment Skill Level M30; and English 43, or Business 92, and English 42, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W4 and R4.

*Limitation on Enrollment:* This course is not open to students with credit for more advanced Accounting courses.

Theory and practice in the fundamentals of accounting transactions; business documents, journals and ledgers; opening, adjusting and closing entries; payroll. (FT) Associate Degree Credit.

**116A Principles of Accounting-Financial**

4 hours, 4 units  
Grade Only

*Advisory:* Mathematics 35 with a grade of “C” or better, or equivalent, or Assessment Skill Level M30; and English 43 and English 42, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W4 and R4.

This introductory financial accounting course provides instruction in the theory and practice of accounting applicable to recording, summarizing, and reporting of business transactions for external reporting and other external uses. Subject matter includes coverage of asset valuation, revenue and expense recognition, and appropriate accounting for various asset, liability, and capital accounts. This course is required for business majors preparing for, and planning to transfer to, a four-year college or university. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN BUS 2) (CAN BUS SEQ A = ACCT 116A + 116B)

**116B Principles of Accounting-Managerial**

4 hours, 4 units  
Grade Only

*Prerequisite:* Accounting 116A with a grade of “C” or better, or equivalent.

This introductory managerial accounting course provides instruction in the selection and analysis of accounting information for internal use by managers. Emphasis is given to the use of information needed for managerial planning and control. This course is required for business majors preparing for, and planning to transfer to, a four-year college or university. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN BUS 4) (CAN BUS SEQ A = ACCT 116A + 116B)

**120 Federal Income Tax**

3 hours, 3 units  
Grade Only

*Advisory:* Completion of or concurrent enrollment in Accounting 102 or 116A; and concurrent enrollment in Accounting 121.


**128A Small Business Accounting - Recordkeeping**

1.5 hours, 1.5 units  
Grade Only

*Advisory:* Concurrent enrollment in Accounting 128B.

*Limitation on Enrollment:* This course is not open to students with credit for Accounting 128.

In this course, students will learn the basic accounting skills necessary to run a small business. They will study the practical applications of recording, summarizing, and reporting business transactions for internal uses as well as for completing federal, state, and local reporting requirements. (FT) Associate Degree Credit.

**128B Small Business Accounting - Payroll**

1.5 hours, 1.5 units  
Grade Only

*Advisory:* Concurrent enrollment in Accounting 128A.

*Limitation on Enrollment:* This course is not open to students with credit for Accounting 128.

In this course, students will learn the basic record keeping skills necessary to determine payroll for a small business. They will study the practical application of recording, summarizing, and reporting business transactions for internal uses as well as completing federal, state, and local reporting requirements. (FT) Associate Degree Credit.

**150 Computer Accounting Applications**

3 hours, 3 units  
Grade Only

*Advisory:* Completion of or concurrent enrollment in Accounting 102 or 116A.

An introductory course of computerized accounting system functions utilizing an integrated general ledger software package (such as DacEasy) and spreadsheet software (such as Lotus 1-2-3). (FT) Transfer Credit: CSU and/or private coll/univ.

**197L Accounting Topics Computerized**

3-4.5 hours lab, 1-1.5 units

An interdisciplinary course to supplement the lecture in Accounting 197 with computer aided instruction.
Computer software, both CAI and commercial packages are available to assist the students in understanding business concepts. Transfer Credit: CSU and/or private coll/univ.

270 Work Experience

Hours by Arrangement; 1-4 units

Grade Only

Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, including work experience.
A program of on-the-job learning experiences for students employed in a job related to their major. The combined maximum credit for all work experience courses from all disciplines may not exceed 16 units. Transfer Credit: CSU and/or private coll/univ.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

85 Public Safety Program

100 hours lecture (total),
8 hours lab (total), 6 units

Grade Only

This course is designed to provide high school students with an overview of the criminal justice system. Emphasis will be placed on law enforcement procedures and techniques. The student will comprehend the principles and components that affect modern law enforcement such as Criminal Law, Juvenile Law, Search and Seizure, Laws of Arrest, Evidence, First Aid, Narcotics, Gangs, and Report Writing. (FT) Associate Degree Credit.

101 Introduction to Administration of Justice

3 hours, 3 units

Grade Only

Students are introduced to the philosophy and history of Administration of Justice. Students receive an overview of crime and police problems and organization and jurisdiction of local, state and federal law enforcement agencies. Students survey professional career opportunities and qualifications. This class provides professional education for students seeking employment in the field of law enforcement, continued education for law enforcement personnel, and general knowledge of the Administration of Justice System for the community at large. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN AJ 2)

102 Criminal Law I

3 units, 3 hours

Grade Only

Students are introduced to the scope and source of criminal law, definition and classification of crimes, elements of crime, types of intent, capacity to commit crimes, legal defenses, parties to crime, attempts, solicitation, obstruction of justice, conspiracy, laws of arrest, offenses against the public peace, types of assault, and constitutional background. (FT) Transfer Credit: CSU and/or private coll/univ. (CAN AJ 4)

106 Diversity and Community Relations

3 hours lecture, 3 units

Grade Only

This course offers Administration of Justice students the opportunity to analyze, develop insights, and effectively handle face to face street contact between peace officers and the public. Subject matter emphasizes the major cultural groups in California and
the community relations problems facing law
enforcement personnel. This course fulfills degree,
certificate requirements, and is transferable. (FT)
Transfer Credit: CSU and/or private coll/univ.

140 Patrol Procedures
3 hours, 3 units
Grade Only
This course covers techniques and methods used by
peace officers while on patrol. Subject matter includes
observation skills, perception, and recollection of facts.
Students develop insight into prioritization of calls for
service, crimes in progress, officer survival techniques,
and handling of unusual incidents. (FT) Transfer Credit:
CSU and/or private coll/univ.

147 Physical Conditioning
3 hours lab, 1 unit
Grade Only
This course provides a balanced physical conditioning
program for Administration of Justice and Fire
Technology students. A prime objective is to prepare
these students for employment in their respective
occupational fields. This course also meets District
Physical Education graduation requirements. This
course may be repeated two times. Transfer Credit: CSU
and/or private coll/univ.

148 Defensive Tactics
3 hours lab, 1 unit
Grade Only
This course offers Administration of Justice students
the opportunity to develop skills relating to protection
against persons armed with dangerous weapons,
demonstration and drill in a limited number of control
holds, take downs, restraining of prisoners, and
fundamental use of the police baton. This course may
be repeated two times. (FT) Transfer Credit: CSU and/
or private coll/univ.

149 Firearms
3 hours lab, 1 unit
Grade Only
This course covers the moral aspects, legal provisions,
safety precautions, and restrictions covering the use of
firearms, firing of the sidearm and shotgun. This course
meets the state requirements in Carrying and Use of the
Firearms as described in 699 of the Administrative
Code, 7514.1 of the Business and Professions Code, and
12033 of the Penal Code. This course may be repeated
three times. (FT) Transfer Credit: CSU and/or private
coll/univ.

157A Court Support and Administration I
3 hours, 3 units
Grade Only
The purpose of this course is to provide an overview of
the history, structure and function of the various levels
of the California courts, with a focus on criminal justice
and how courts support and interact with other
components of the criminal justice system. Basic
principles of legal analysis and legal writing will be
introduced as the class progresses to expose students
to the opportunity to resolve legal issues by applying
facts to the applicable law. (FT) Transfer Credit: CSU
and/or private coll/univ.

157B Court Support and Administration II
3 hours, 3 units
Grade Only
Students obtain an in-depth understanding of the
California trial and appellate court system. Content
includes a close look at non-judicial court support
personnel functions; aspects of the jury system; rights
to a speedy and public trial and assistance of counsel;
issues of court administration, inherent powers of the
courts; and the future of the court system. (FT) Transfer
Credit: CSU and/or private coll/univ.

160 Criminal Law II
3 hours, 3 units
Grade Only
Students are introduced to dangerous weapons control
laws; homicide; false imprisonment; kidnapping; sex
crimes; public safety and morals; burglary, robbery and
extortion; theft and embezzlement; controlled
substance and alcohol abuse; forgery; arson; and
Alcohol Beverage Control (ABC) laws. (FT) Transfer
Credit: CSU and/or private coll/univ.

161 Juvenile Procedures
3 hours, 3 units
Grade Only
This course covers the organization, functions and
jurisdiction of juvenile agencies, the processing and
detention of juveniles, juvenile cases disposition,
juvenile statutes and court procedures. (FT) Transfer
Credit: CSU and/or private coll/univ.

162 Criminal Investigation
3 hours, 3 units
Grade Only
This course covers crime scene search and recording,
collection and preservation of physical evidence,
scientific aids, modus operandi, sources of information,
interviews and interrogation, follow-up and case
preparation. (FT) Transfer Credit: CSU and/or private coll/univ. (CAN AJ 8)

167 Report Writing
3 hours, 3 units
Grade Only

Students learn how written communications are used in both civil and criminal areas of law enforcement. Students prepare written reports relative to crime scene investigation, evidence preservation, chain of evidence continuity, case history, case prosecution, preparation for data processing, criminal records and other types of law enforcement statistical material utilized in case preparation. (FT) Transfer Credit: CSU and/or private coll/univ.

180 Drug Abuse and Law Enforcement
3 hours lecture, 3 units
Limitation on Enrollment: This course is not open to students with credit for Administration of Justice 265: Drug Abuse and Law Enforcement.
This course offers Administration of Justice students the opportunity to analyze and effectively address drug abuse issues that are encountered in law enforcement. The course emphasizes the understanding drug laws and recognition of the major drug categories, their effects, and associated types of paraphernalia. (FT) Transfer Credit: CSU and/or private coll/univ.

181 Vice and Organized Crime
3 hours lecture, 3 units
Limitation on Enrollment: This course is not open to students with credit for Administration of Justice 265: Vice and Organized Crime.
This course is designed to provide the student with an understanding of the interrelations of organized crime and the community; the impact of covert criminal activities upon the social structure; symptoms of organized crime activity, i.e., vice, narcotics and white collar crime; political influences in the legal systems; and management of crime control units. Emphasis is placed on law enforcement involvement, intervention and prosecution. (FT) Transfer Credit: CSU and/or private coll/univ.

182 Street Gangs and Law Enforcement
3 hours lecture, 3 units
Limitation on Enrollment: This course is not open to students with credit for Administration of Justice 265: Street Gangs and Law Enforcement.
This course is designed to provide the student with an overview of the street gang issue. An introduction to the history of gangs, gang dynamics, criminal activities, identification of differences between gangs, narcotics involvement, and gang philosophy. Emphasis is placed on the law enforcement perspective for involvement, intervention, prosecution and intelligence gathering. Transfer Credit: CSU and/or private coll/univ.

190 Legal Aspects of Corrections
3 hours, 3 units
Grade Only
This course provides students with an awareness of the historical framework, concepts and precedents that guide correctional practice. Course material is intended to broaden the individual’s perspective of the corrections environment, the civil rights of prisoners and responsibilities and liabilities of corrections staff. (FT) Transfer Credit: CSU and/or private coll/univ.

191 Control and Supervision in Corrections
3 hours, 3 units
Grade Only
This course offers an overview of the methods, practices, and theory related to the custodial supervision of incarcerated persons in federal, state, and local correctional facilities. The course will introduce and discuss issues of custodial control on a continuum from day-to-day institutional living through crisis situations. The course will analyze interaction between the offender and the correctional employee. Topics will include the effects of violence, overcrowding, gangs, substance abuse, legislation and other factors that impact the offender, employee and facility. Skills related to effective communication and crisis intervention will also be discussed. (FT) Transfer Credit: CSU and/or private coll/univ.

192 Correctional Interviewing and Counseling
3 hours, 3 units
Grade Only
This course provides an overview of counseling and interviewing techniques available to Corrections practitioners. This course offers students the opportunity to learn the use of appropriate confidence building techniques and theories that may be used by correctional employees in interviews and counseling. This is a basic course for students planning to enter the Correctional Science field. (FT) Transfer Credit: CSU and/or private coll/univ.

193 Concepts of Criminal Law
3 hours, 3 units
Grade Only
This course offers an overview of the historical development, philosophy of law and constitutional provisions; definitions, classification of crimes and their application to the system of administration of
justice; legal research, review of case law, methodology and concepts of law as a social force. Course material will explore crimes against persons, property, and the state as a social, religious, and historical ideology. (FT) Transfer Credit: CSU and/or private coll/univ.

194 Introduction to Correctional Science

3 hours, 3 units
Grade Only

This course is designed to provide the student with an overview of the history and trends of corrections. It will focus on the legal issues, general laws (i.e. codes, statutes, case law, etc.) and general operations in correctional institutions. The relationship between corrections and other components of the criminal justice system will also be examined. Employment opportunities and entry requirements in the criminal justice field will also be explored. (FT) Transfer Credit: CSU and/or private coll/univ.

201 California Criminal Procedure

3 hours, 3 units
Grade Only

This course involves a comprehensive look at the origin, development, philosophy and legal basis of criminal procedures in California. This comprehensive look includes an examination of procedural statute law, case law, California court system, California grand jury system, pre-trial court procedures, adult trial procedures, juvenile court procedures, sentencing, appellate process and Constitutional law governing laws of arrest, use of force, motions, rules of discovery, and applicable rules of evidence. (FT) Transfer Credit: CSU and/or private coll/univ.

210 Evidence

3 hours, 3 units
Grade Only

Students learn about the origin, development, philosophy, and legal basis of evidence. Subjects include judicial decisions and statutory rules of evidence that govern the admissibility of testimony, writings, and material objects at a criminal trial. Students also learn how constitutional and procedural considerations affect searches and seizures, admissions, confessions, and methods of identification. (FT) Transfer Credit: CSU and/or private coll/univ.

220 Law Enforcement Forensics

3 hours, 3 units
Grade Only

This course is designed to provide the student with an overview of how to evaluate, process and testify about evidence found at a crime scene. An introduction to the difference between forensic biology and clinical biology, as well as to the crime laboratory analysis of physical and/or autopsy evidence. Emphasis will be on law enforcement/crime laboratory involvement in the documentation, collection and analysis of evidence including blood spatter, blood typing, DNA typing, drugs/alcohol effects, wounds, trace evidence, documents, foot prints, fingerprints, missile trajectory and scene reconstruction. (FT) Transfer Credit: CSU and/or private coll/univ.

230 Constitutional Law

3 hours, 3 units
Grade Only

This course provides a compact summary of the sources of governmental power and limitation contained in the United States Constitution. While the emphasis is on contemporary interpretation and application of the Constitution, the historical underpinnings are also examined. This course will explore how the United States Supreme Court has interpreted and applied the Constitution in the ongoing effort to balance the power in the following arenas: between branches of the federal government, between federal government and the state, and between the government and the individual citizen. (FT) Transfer Credit: CSU and/or private coll/univ.

270 Work Experience

Hours by Arrangement; 1-4 units
Grade Only

Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, including work experience. A program of on-the-job learning experiences for students employed in a job related to their major. The combined maximum credit for all work experience courses from all disciplines may not exceed 16 units. Transfer Credit: CSU and/or private coll/univ.

290 Independent Study

Hours by Arrangement; 1-3 units
Grade Only

Limitation on Enrollment: Must obtain an Add Code from instructor for registration. Investigation of a special area in the field of Administration of Justice. This course may be taken four times with different content for a maximum of six units. Transfer Credit: CSU and/or private coll/univ.
300 First Aid  
8 hours (total), 0.5 unit  
Grade Only

This course is designated for personnel who need first aid training as outlined by the State of California regulations. The instruction will include communication, terminology, situation assessment, environmental emergencies, (including cardiopulmonary resuscitation) medical emergency childbirth, and the emotionally disturbed. This course may be repeated as necessary to meet a legally mandated training requirement as a condition of continued or volunteer employment. (FT) Associate Degree Credit.

304 Intermediate Traffic Accident Investigation  
32 hours lecture (total), 8 hours lab, 2 units  
Grade Only

Limitation on Enrollment: Student must be a current employee of a law enforcement agency or public entity whose duties include the investigation of traffic collisions.

This is a P.O.S.T. certified course designed to provide students with skills and knowledge in the basics of tire mark identification and analysis. Course topics include identification of the various types of tire marks; tire mark documentation, measurements; terms, definitions relating to tire mark investigations; case preparation, courtroom testimony; determination of coefficient of friction, drag factor; and speed estimates using various equations.

305 Advanced Traffic Accident Investigation  
64 hours lecture (total), 16 hours lab (total), 4 units  
Grade Only

Prerequisite: Administration of Justice 304, 381, 382, 383, and 384, each with a grade of "C" or better, or equivalent.

This is a P.O.S.T. certified course designed to provide the student with skills and knowledge of advanced investigative techniques used to determine the sequence of events that result in a traffic collision and collision scene documentation.

307 Traffic Enforcement Radar Certification  
24 hours lecture (total), 1.5 units  
Grade Only

Limitation on Enrollment: Student must be a current employee of a law enforcement agency or public entity whose duties include enforcing traffic laws and/or conducting speed surveys.

This is a P.O.S.T. certified course designed to provide the necessary skills and knowledge of the legal and technical uses of moving and stationary radar, setting up and calibrating of equipment, target identification, and detecting anomalous and spurious readings.

312 Basic Supervisory Course  
80 hours lecture (total), 5 units  
Grade Only

Prerequisite: Administration of Justice 381 and 382 and 383 and 384, each with a grade of "C" or better, or equivalent.

To present to the student who has recently been, or is about to be, promoted to a first-line supervisor, the basic principles of supervision needed to perform the job. Extensive attention is directed to the development of self confidence and positive, success-oriented attitudes toward supervision. (FT)

313 Public Safety Dispatcher's Basic Course  
96 hours lecture (total), 24 hours lab (total), 6.5 units  
Grade Only

This course will provide the student with entry-level skills and knowledge relevant to public safety dispatchers whose duty is providing dispatch service for law enforcement personnel in agencies participating in the P.O.S.T. Public Safety Dispatcher Program. (FT)

314 Officer Safety and Field Tactics  
16 hours lecture (total), 24 hours lab (total), 1.5 units  
Grade Only

Prerequisite: Administration of Justice 381, 382, 383, and 384, each with a grade of "C" or better, or equivalent.

This course is designed to provide and train officers in the areas of advanced retention, defensive tactics, recognition of new laws, advanced weaponry, current trends in officer survival in field situations, high-risk vehicle stops using approved methods, and increased shooting proficiency. (FT)

316 Baton Instructor Course  
4 hours lecture (total), 36 hours lab (total), 1 unit  
Grade Only

Limitation on Enrollment: A Law Enforcement or P.O.S.T. Peace Officers Standard and Training basic baton certification or equivalent training determined by the Regional D-Tac/Baton Core Instructor.

This is a P.O.S.T. certified course designed to develop baton instructor skills. Students will become familiar with teaching techniques of an all-encompassing impact weapon/control device program. This program will enable the student to give basic baton training.
with one set of techniques that are good for use with a variety of impact weapons/control devices. This course includes side handle baton, straight baton, expandable batons, OPN Nunchaku, flashlight, and the Sap. This course fulfills requirements for application as a regional baton instructor.

320 Semi-Automatic Pistol Training

4 hours lecture (total)
20 hours lab (total), 0.5 unit

Prerequisite: Administration of Justice 381, 382, 383, and 384, each with a grade of "C" or better, or equivalent.

Introduction to the fundamental characteristics of the self-loading semi-automatic pistol. This course includes firearms safety, use of force decision making, marksmanship skills, pistol operation and pistol maintenance. Training occurs in both daylight and low light conditions. Range firing exercises are basic and combat oriented. (FT)

322 Basic Traffic Accident Investigation

32 hours lecture (total)
8 hours lab (total), 2 units

Prerequisite: Administration of Justice 381 and 382 and 383 and 384, each with a grade of "C" or better, or equivalent. This is a P.O.S.T. certified course designed to provide the student with skills and knowledge to properly investigate and document traffic collisions. This course completes peace officer requirements to write traffic collision-related notices of violations based on reasonable cause per California Vehicle Code Section 40600.

323 S.T.C. Certified Corrections Officer Core Course

123.5 hours lecture (total)
396.5 hours lab (total), 16 units

This course provides entry-level training for correctional officers. It exceeds the minimum mandates of the California State Board of Corrections and is designed to introduce the student to the role of corrections in today's society. Emphasis is on facility operations, criminal law, ethics, inmate supervision, defensive tactics, and physical training. (FT)

324 S.T.C. Certified Supplement Core Course

52 lecture hours (total)
4 hours lab (total), 3 units

Prerequisite: Administration of Justice 381, 382, 383, and 384, each with a grade of “C” or better, or equivalent.

This course provides entry-level training for corrections officers who are peace officers and have completed the P.O.S.T. Basic Course. This course meets the mandates of the California State Board of Corrections. It is designed to introduce the student to the role of corrections in today's society. Emphasis is on facility operations, inmate supervision and management, facility security, booking and releasing inmates and emergency procedures. (FT)

325 S.T.C. Certified Jail Training Officer

30 hours lecture (total)
10 hours lab (total), 2 units

Prerequisite: Administration of Justice 323 and 324, each with a grade of "C" or better, or equivalent. This course provides training for advanced corrections officers who are assigned as trainers. This course is approved by the California State Board of Corrections and is designed to introduce the student to the role of training officers in corrections. Emphasis is on evaluating trainees, interpersonal communications, ethics, physical fitness, and low and non-lethal weapon certification. (FT)

326 S.T.C. Certified Detentions Special Incident Response Training

25 hours lecture (total)
15 hours lab (total), 1.5 units

Prerequisite: Administration of Justice 323, 324, 381, 382, 383, and 384, each with a grade of "C" or better, or equivalent.

This 40 hour course provides advanced tactics training for corrections officers assigned to special response teams. Emphasis is on riot suppression, cell extraction, defensive tactics, fire procedures, command and control, and low-lethal weapon certification.

327 Advanced Patrol Strategies

19 hours lecture (total)
21 hours lab (total), 1.5 units

This is an intense and vigorous 40-hour course that provides updated training in the areas of Advanced Officer Safety, Field Tactics, Performance Driving, Survival Firearms, Officer Involved Shootings, and
Advanced Patrol Procedure for members of law enforcement agencies currently assigned to patrol duties. Participation includes working under varied weather and lighting conditions and required moderate physical exertion during firearms training and practical exercises.

328 Correctional Officer Basic Core Courses
120 hours lecture (total)  
40 hours lab (total), 8 units  
Grade Only

This course is designed to meet training requirements regulated by the California Department of Corrections Standards and Training. Completion of this course certifies that the student has completed entry-level training requirements for Adult Institution staff. Course content includes limited duty peace officer training, CPR and First Aid. Associate Degree Credit.

329 S.T.C. Laws of Arrest and Firearms Training
16 hours lecture (total)  
24 hours lab (total), 1.5 units,  
Grade Only

*Prerequisite:* Administration of Justice 323 and 324, each with a grade of "C" or better, or equivalent.

This course is designed to update the correctional deputy on current legal issues dealing with laws of arrest. The course of instruction includes criminal law, ethics, and inmate supervision. Also included is firearms familiarization, firearms safety, and shooting principles.

330 P.O.S.T. Certified Field Training Officer Course
16 hours lecture (total)  
24 hours lab (total), 1.5 units,  
Grade Only

*Prerequisite:* Administration of Justice 381, 382, 383, and 384, each with a grade of “C” or better, or equivalent.

This course is designed for recently appointed Field Training Officers from Law Enforcement agencies. This course will provide training in the area of the FTO role, ethics, civil liability, teaching techniques, sexual harassment, leadership, documentation, officer safety issues for the FTO and trainee, override and intervention, adult learning theory and other related subjects.

331 Advanced Officer Training/Field Operations
20 hours lecture (total)  
60 hours lab (total), 2.5 units  
Grade Only

*Prerequisite:* Administration of Justice 381, 382, 383, and 384, each with a grade of “C” or better, or equivalent.

This course is designed to provide updated training in the areas of field tactics, criminal law, and general patrol procedures for members of the Sheriff’s Department. The course is applicable to deputies and sergeants who are being assigned to patrol stations for the first time or who are being reassigned to patrol after an absence of longer than one year.

332 P.O.S.T. Certified Driving Under the Influence Course
16 hours lecture (total)  
8 hours lab (total), 1 unit  
Grade Only

*Prerequisite:* Administration of Justice 381, 382, 383, and 384, each with a grade of “C” or better, or equivalent.

This course is designed to provide the necessary instruction on technical and legal issues involved in the detection, apprehension and prosecution of the “under the influence” driver. Emphasis is on the physical symptoms of drivers under the influence, including testing using the current standardized sobriety tests. Also covered are the legal aspects, officer safety, and the California Department of Motor Vehicle requirements concerning legal sanctions of D.U.I. drivers.

333 P.O.S.T Certified Firearms Instructors Course
20 hours lecture (total)  
20 hours lab (total), 1.5 units  
Grade Only

*Prerequisite:* Administration of Justice 381, 382, 383, and 384, each with a grade of “C” or better, or equivalent.

*Limitation on Enrollment:* Student must complete a P.O.S.T. firearms qualification class with a score of 80% or better, prior to enrollment.

This course is designed to train the participants to be firearms instructors and to provide them with the skills and knowledge to identify, define and work with officers having problems with firearms. Instruction will include firearms safety, liability encountered during training, basic firearms knowledge, course design, method of instruction, writing lesson plans and presentation strategies. Additionally, students will
receive a special weapons orientation and preview new firearms accessories and equipment.

**334 Law Enforcement Emergency Vehicle Operations**

4 hours lecture (total)
20 hours lab (total), 0.5 units

Grade Only

*Limitation on Enrollment:* Student must be attending the San Diego Regional Public Safety Training Institute's Basic Academy.

This course is designed to provide law enforcement officers with a general knowledge of driving principles and vehicle dynamics. The purpose is to gain knowledge of how to safely operate emergency vehicles during non-emergency, emergency and pursuit driving situations. (FT) Associate Degree Credit.

**335 P.O.S.T. Certified Tactical Communications Course**

8 hours lecture (total), 0.5 unit

Grade Only

*Prerequisite:* Administration of Justice 381, 382, 383, and 384, each with a grade of "C" or better, or equivalent.

This course is designed to provide law enforcement officers with verbal skills and effective intervention techniques to avoid physical confrontations. This course also focuses on topics relating to stress management and stress reduction.

**336 S.T.C. Advanced Arrest and Firearms Training**

4 hours lecture (total)
20 hours lab (total), 0.5 unit

Grade Only

*Prerequisite:* Administration of Justice 323 and 324, each with a grade of "C" or better, or equivalent.

This course is designed to update the Correctional Deputy on perimeter security and transporting inmates outside the detention facility. The course of instruction includes Laws of Arrest and Firearms.

**338 S.T.C. Certified Jail OPS. “A” Course**

24 hours lecture (total), 1.5 units

Grade Only

*Prerequisite:* Administration of Justice 323 and 324, each with a grade of "C" or better, or equivalent.

This course is designed to instruct law enforcement/corrections officers in the moral, legal and safe use of chemical agents. The course provides officers with verbal skills and effective intervention techniques to avoid physical confrontations. The course provides knowledge of cultural differences in surrounding communities and their agencies. This course may be taken four times with different content. (FT) This course may be taken four times with different content.

**339 S.T.C. Certified Detentions Inmate Disturbance Training**

4 hours lecture (total)
20 hours lab (total), 0.5 unit

Grade Only

*Prerequisite:* Administration of Justice 323 and 324, each with a grade of "C" or better, or equivalent.

This course provides advanced procedures training for correctional personnel to handle critical incidents in the jail which require special response tactics. Topics include: inmate disturbances, riots, cell extractions, containing, controlling and managing a violent critical incident. Instruction will utilize a variety of instructional methods from lecture to scenario training and practical application, allowing the student to apply what he/she has learned.

**343 Peace Officer's Guide to Internal Affairs**

8 hours lecture (total), 0.5 unit

Grade Only

*Prerequisite:* Administration of Justice 381, 382, 383, and 384, each with a grade of "C" or better, or equivalent.

This course is designed to provide law enforcement officers with a thorough working knowledge of department Internal Affairs investigative procedures.

**344 Strategies for Advanced Officers**

24 hours lab (total), 0.5 unit

Grade Only

*Prerequisite:* Administration of Justice 381, 382, 383, and 384, each with a grade of "C" or better, or equivalent.

This course provides law enforcement officers with the three basic principles of tactical training: (1) Shooting principles and combat shooting scenarios where officers are faced with "shoot or no shoot" deadly force decision making. (2) Driving principles and vehicle dynamics to safely operate emergency vehicles during routine and emergency driving situations and (3) Arrest and control combative techniques that emphasize hand-to-hand fighting in the control of suspects who resist arrest. This course includes the use of impact weapons.
346 Juvenile Counselor Basic Core Course  
144 hours lecture (total)  
44 hours lab (total), 10 units  
Grade Only

This course is designed to meet the training requirements regulated by the Department of Corrections. Completion of this course certifies that the student has completed the entry-level training requirements for juvenile institution staff. Course content includes limited duty peace officer training, CPR and First Aid. (FT) Associate Degree Credit.

348 Essentials of Investigation  
40 hours lecture (total), 2.5 units  
Grade Only

Prerequisite: Administration of Justice 381, 382, 383, and 384, each with a grade of "C" or better, or equivalent.

This course refines and enhances the investigation skills of the law enforcement officer newly assigned to an investigative position or anticipating a transfer to investigations. Emphasis is on investigative techniques, legal issues affecting investigation, and officer safety. Associate Degree Credit.

350 Weapons and Safety Training for Probation Officers  
56 hours lecture (total)  
56 hours lab (total), 4 units  
Grade Only

Prerequisite: Administration of Justice 356A with a grade of "C" or better, or equivalent.

This course is designed for armed Probation staff assigned to special operations, intensive supervision, or home supervision. Students must have successfully completed a P.O.S.T. approved P.C. Laws of Arrest course. Subjects covered will include legal update liability, shooting skills, deadly force, survival skills and chemical agents. Students who successfully complete the course will satisfy the firearms requirement for peace officers pursuant to Penal Code section 832.

351 Chemical Agents Training for Peace Officers  
8 hours lecture (total), 0.5 units  
Grade Only

This course is designed to instruct peace officers in the use of liquid aerosol chemical agents. Topics will include chemistry, how to disperse, effects, use of force, tactics, liability, plus policies and procedures. All Peace Officers Standards of Training (P.O.S.T.)-mandated performance objectives are addressed.

352 S.T.C. Certified Jail OPS Course  
8 hours lecture (total)  
16 hours lab (total), 0.5 unit  
Grade Only

Prerequisite: Administration of Justice 323 with a grade of "C" or better, or equivalent.

This course is designed to instruct law enforcement/corrections officers in the basic use of the 12 gauge shotgun and vehicle operations.

356A 832 PC Laws of Arrest  
40 hours lecture (total)  
Grade Only

This course meets the Police Officers Standards of Training (P.O.S.T.) requirements of 832 P.C., which includes professional orientation, ethics, Administration of Justice components, California court system, discretionary decision making, community relations, introduction to law, laws of arrest, laws of evidence, communications, investigations, arrest and control. This course may be repeated as necessary to meet a legally mandated training requirement as a condition of continued or volunteer employment. (FT)

356B 832 PC Laws of Arrest - Firearms  
12 hours lecture (total)  
12 hours lab (total), 1 unit  
Grade Only

This course meets the Police Officers Standards of Training (P.O.S.T.) requirements for 832 P.C. Firearms course. This course may be repeated as necessary to meet a legally mandated training requirement as a condition of continued or volunteer employment. (FT)

356D Vehicle Operations for Correctional Deputies  
8 hours lecture (total)  
8 hours lab (total), 0.5 unit  
Grade Only

Prerequisite: Administration of Justice 323 with a grade of "C" or better, or equivalent.

This course is designed to provide the student with the appropriate skills, knowledge and attitudes which will enable him/her to safely and legally operate an emergency vehicle under routine/non-emergency conditions. (FT)
361 Current Issues for Advanced Officers
0.25 - 2.5 hours lecture (8 - 40 total hours),
0.25 - 2.5 hours lab (8 - 40 total),
0.5 - 2.5 units
Grade Only

Prerequisite: Successful completion of the Basic P.O.S.T.
Certified Academy or S.T.C. Certified Correctional Officer
Core Course Academy.
This course is designed for peace officers and
 correctional personnel below the rank of middle
management. It meets the requirements of P.O.S.T.,
Title 15, Minimum Standards of Training for Local
Corrections and Probation Officers (STC) and the
California Legislature requiring special technical and
skill proficiency training as specified in Section 13510,
6030-6043 of the California Penal Code and SB-924.
Course work includes subjects such as new legislation
and legal update, special technical subjects addressing
social issues and skill proficiency training in emergency
medical techniques, vehicle operations, firearms and
defensive tactics, pre-assignment jail training officer
issues, jail management, jail operations, inmate
disturbances, advanced training for detention
supervisors, and advanced correctional officer issues.
This course may be repeated as necessary to meet a
legally mandated training requirement as a condition of
continued or volunteer employment. (FT) Associate
Degree Credit.

362 Personnel Issues for Detention Supervisors
24 lecture (total), 1.5 units
Grade only

Prerequisite: Administration of Justice 312 and 323 and
324 and 381 and 382 and 383 and 384, each with a
grade of "C" or better, or equivalent.
This is an advanced 24-hour course designed to train
detention supervisors in the skills that are necessary in
supervising employees. Topics will include: legal
updates, counseling employees in work performance
standards, procedures related to Internal Affairs
investigations, Worker's Compensation Issues and
department budget and planning strategies. (FT) Associate
Degree Credit.

365 Assessment Tools Used on Adult Offender
Populations
12 hours lecture (total), 4 hours lab (total), 1 unit
Grade Only

This course is designed for probation officers and other
law enforcement officers, as well as treatment
providers, court personnel, and victim advocates
interested in learning how to identify and assess levels of
risk and levels of criminogenic needs in offender
populations. It will teach participants how to
administer Federal Salient Factor Score (FSFS), the
Level of Service Inventory (LSI) and Adult Substance
User Survey (ASUS) instruments while using
motivational interviewing techniques.

371 P.O.S.T. Certified Regular Basic Course
Module Format, Level I
274 hours lecture (total),
70 lab hours, 18.5 units
Grade Only

Prerequisite: Level II and III Modules, current (within
last three years) in First Aid and CPR training, current
PC 832 training and successfully passing the P.O.S.T.-
constructed Level I Entrance Examination.
This course is designed for current Level II reserve
peace officers. Upon successful completion of this
course, Level II reserve peace officers will have met
P.O.S.T. minimum standards of training and will be
eligible for full-time peace officer employment. Course
work will include subjects addressing social issues and
skill proficiency training in vehicle operations, firearms,
chemical agents, defensive tactics, investigative report
writing, traffic accident investigations, physical fitness,
patrol techniques, and responding to crimes in
progress. (FT)

372 P.O.S.T. Certified Regular Basic Course
Module Format, Level II
178 hours lecture (total),
46 lab hours, 12 units
Grade Only

Prerequisite: Level III Module, current (within last three
years) in First Aid and CPR training, and current PC 832
training.
This course prepares the student to become a back-up
officer in the field. Emphasis is placed on the subjects
of investigative report writing, arrest and control/baton,
firearms, chemical agents patrol procedures,
cultural diversity/discrimination. Completion of this
course meets P.O.S.T. requirements for Level II Reserve
status. (FT)

373 P.O.S.T. Certified Regular Basic Course
Module Format, Level III, P.C. 832 (Part 1)
56 hours lecture (total),
8 lab hours, 3.5 units
Grade Only

This course meets the P.O.S.T. requirements of 832 PC,
which include professional orientation, ethics, criminal
justice system, community relations, introduction to
criminal law, laws of arrest, search and seizure,
presentation of evidence, investigative report writing,
use of force, preliminary investigation, arrest and control, firearms and justice system crimes. (FT)

374 P.O.S.T. Certified Regular Basic Course  
Module Format, Level III, P.C. 832 (Part 2)  
98 hours lecture (total),  
34 lab hours, 7 units  
Grade Only  
Prerequisite: Arrest and Firearms components of the PC 832 course. Current P.C. 832 training.  
This course prepares the student to become a second partner in a patrol assignment capacity. Police authority only for the duration of the person's specific assignment. Emphasis of the course is on the subjects of arrest and control, first aid and CPR, vehicle operations, patrol procedures and report writing. Completion of the course meets P.O.S.T. requirements for Level III Reserve status. (FT)

375 Community Service Officer Academy  
80 hours lecture (total)  
240 hours lab (total), 10 units  
Grade Only  
This course of instruction is designed for students planning public safety careers as community service officers. The course will be delivered in a non-traditional manner where students are expected to attend forty hours per week for eight weeks. Among the areas of emphasis provided are Administration of Justice System, Ethics, Introduction to Criminal Law, Drug Identification and Impairment Recognition, Laws of Evidence, Report Writing, Vehicle Operations, Traffic Accident Investigation, First Aid/CPR, and Courtroom Procedures. Upon successful completion of the academy program, students may petition for waiver of Administration of Justice 101. (FT) Associate Degree Credit.

381 P.O.S.T. Certified Regional Academy  
Module 1  
137.5 hours lecture (total),  
486.5 hours lab (total), 15 units  
Grade Only  
Module 1 of a 4-phase modular instructional program of peace officer orientation, designed to introduce the student to the role of law enforcement in today's society. Exceeds the minimum peace officer training requirements of Section 832 of the California Penal Code. Upon successful completion of the 4 modules, students may petition for waiver of Administration of Justice 101, 102, 103. The 4-modular instructional program must be completed in succession. (FT)

382 P.O.S.T. Certified Regional Academy  
Module 2  
48 hours lecture (total)  
100 hours lab, 5 units  
Grade Only  
Prerequisite: Administration of Justice 381 with a grade of "C" or better, or equivalent.  
This is Module 2 of a peace officer orientation program. This module emphasizes topics on criminal procedure, law, civil crisis management, firearms, arrest and control techniques and physical training. (FT)

383 P.O.S.T. Certified Regional Academy  
Module 3  
31 hours lecture (total)  
44 hours lab, 2.5 units  
Grade Only  
Prerequisite: Administration of Justice 381 and 382 each with a grade of "C" or better, or equivalent.  
Module 3 of a peace officer orientation program. This module emphasizes topics in human relations, criminal investigation, patrol theory and method, carry over instruction in report writing, physical training and firearms. (FT)

384 P.O.S.T. Certified Regional Academy  
Module 4  
64 hours lecture (total)  
48 hours lab, 5 units  
Grade Only  
Prerequisite: Administration of Justice 381, 382, and 383, each with a grade of "C" or better, or equivalent.  
Module 4 of a peace officer orientation program. This module of training emphasizes topics in officer survival, crimes in progress, physical training, arrest and control, traffic stops, problem solving, missing persons, runaway juveniles, investigations, cultural diversity, and vehicle operations. (FT)

385 Law Enforcement Specialist/Master at Arms  
9 hours lecture, 4.5 hours lab, 10.5 units  
Grade Only  
This overview of law enforcement provides current military police with the basic knowledge needed to perform their duties in an appropriate and effective manner. Local, state, and federal law will be identified and defined. (FT) Credit for this course does not apply to the associate degree.  
This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and
Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

**ANTHROPOLOGY (ANTH)**

102 Introduction to Physical Anthropology  
3 hours, 3 units  
Advisory: English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5.  
A survey of the human evolution and human variation through the study of primates, human heredity, variability of modern populations and fossil record of early human primates. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN ANTH 2)

103 Introduction to Cultural Anthropology  
3 hours, 3 units  
Advisory: English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5.  
A survey of various designs for living in different parts of the world. A comparative cross-cultural approach to how societies develop behaviors to meet biological, social, psychological, environmental and economic needs. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN ANTH 4)

107 Introduction to Archaeology  
3 hours, 3 units  
Advisory: English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5.  
Prehistoric cultures, archeological techniques, basic inventions, cultural innovations, and the development of urban civilizations. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN ANTH 6)

270 Work Experience  
Hours by Arrangement; 1-4 units  
Grade Only  
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, including work experience.  
A program of on-the-job learning experiences for students employed in a job related to the Anthropology major. The combined maximum credit for all work experience courses from all disciplines may not exceed 16 units. Transfer Credit: CSU and/or private coll/univ.

**ART - FINE ART (ARTF)**

100 Art Orientation  
3 hours, 3 units  
A survey of the field of visual arts, including aesthetic approaches, philosophies, media, professional fields, regional and cultural contributions. Recommended for general education and Fine Art majors. Illustrated lectures. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

109 Nineteenth and Twentieth Century Art  
3 hours lecture, 3 units  
Advisory: Art-Fine Art 110 and Art-Fine Art 111, each with a grade of “C” or better, or equivalent.  
This course is designed not only for art students but also for those who are interested in history, humanities, teaching, travel and cultural enrichment. It is an introductory survey of the visual arts that are most relevant to an understanding of western civilization in the 19th and 20th centuries. It includes major monuments and representative art works from Europe, Russia and the Americas. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

110 Art History: Prehistoric to Gothic  
3 hours, 3 units  
Advisory: English 51 and English 56, each with a grade of “C” or better, or equivalent or Assessment Skill Levels W5 and R5.  
This course is designed not only for art students, but also for those who are interested in history, humanities, teaching, travel, and cultural enrichment. It is an introductory survey of the visual arts that are most relevant to an understanding of western civilization, from prehistoric Africa and Europe through the Gothic period. It includes major monuments and representative artworks from Mesopotamia, Iran, Egypt, the Aegean and Greece. Also included are the Hellenistic, Roman, early Christian, Byzantine, and Islamic worlds and art work from early Medieval, Romanesque, and Gothic Europe. Material is presented in illustrated lectures. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.  
(CAN ART 2) (CAN ARTF SEQ A = ARTF 110 + 111)
111 Art History: Renaissance to Modern  
3 hours, 3 units
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent or Assessment Skill Levels W5 and R5.
This course is designed not only for art students, but also for those who are interested in history, humanities, travel, and cultural enrichment. It is an introductory survey of the visual arts that are recognized as salient in the development of western civilization from the Renaissance to the early twentieth century. The art styles covered in the course include Renaissance, Mannerism, Baroque, Rococo, Neo-Classicism, Romanticism, Impressionism, post-Impressionism, and early twentieth century Modern movements. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN ART 4) (CAN ARTF SEQ A = ARTF 110 + 111)

125 History of Art: Survey in Far Eastern Art  
3 hours, 3 units
Survey of paintings, sculpture, architecture and allied fine arts from India, China, and Japan. Emphasis on the highlights of each culture, from prehistoric to modern times. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

150A Design I  
1.5 hours lecture, 4.5 hours lab, 3 units
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
This is a course about visual form, and about ways of organizing two-dimensional visual forms into vivid and coherent images. As such, this course may serve as both an introduction to art for those with a tentative interest in art making, and as a foundation course for all other studio courses offered by this department, including courses such as ceramics and sculpture which involve construction in three-dimensions. This course does not require drawing expertise. (FT) Transfer Credit: CSU and/or private coll/univ. UC. (CAN ART 14)

150B Beginning Graphic Design  
1.5 hours lecture, 4.5 hours lab, 3 units
Advisory: English 51 and English 56 and Fine Art 150A, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
This is an introductory class in graphic communication which uses the computer as a tool for building and editing images. As in Art 150A, students address problems of visual form and organization, but with an emphasis in this course on visual constructions which convey information, and on type and text as graphic components of those constructions. This is a core course for art majors and would be useful for anyone interested in computer graphic applications. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

151 Three-Dimensional Design  
1.5 hours lecture, 4.5 hours lab, 3 units
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and Art-Fine Art 150A.
This introduction to design in three dimensions continues the investigation of elements and principles of visual organization begun in Art 150A. Students learn to solve design problems using a variety of three-dimensional materials, and a variety of approaches to three-dimensional structure. This is a foundation course for students planning to major in art, and a useful course for all students interested in building visually coherent three dimensional objects. (FT) Transfer Credit: CSU and/or private coll/univ. UC. (CAN ART 16)

155A Freehand Drawing I  
1.5 hours lecture, 4.5 hours lab, 3 units
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
This course introduces anyone with an interest in drawing to the techniques and theory they need to create naturalistic drawings in various media. It provides students with the means to see and describe the world three-dimensionally using lines and differences in dark and light, and it provides students with compositional strategies for making their depictions more meaningful and effective. No previous art experience is required. (FT) Transfer Credit: CSU and/or private coll/univ. UC. (CAN ART 8)

155B Freehand Drawing II  
1.5 hours lecture, 4.5 hours lab, 3 units
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and Art-Fine Art 155A.
This course builds upon the technical and compositional means introduced in 155A. It differs from 155A in its range of media and form, and in its emphasis on helping students find individual solutions to particular problems of graphic representation and expression. (FT) Transfer Credit: CSU and/or private coll/univ. UC.

165A Composition in Painting I  
1.5 hours lecture, 4.5 hours lab, 3 units
Advisory: ARTF 150A and ARTF 155A with a grade of "C" or better, or equivalent.
This course is an introduction to oil and acrylic painting methods and techniques with emphasis on composition, color, and application of general design principles. A variety of subject matter such as still-life, landscape, portrait and non-objective subjects, and a variety of stylistic approaches such as cubism, collage, realism and expressionism, are explored. This course is designed to develop students' creative abilities and critical thinking in visual terms. The course is designed for students who are pursuing an Associate in Arts degree, preparing for a major in Art, as well as for those who wish to improve their artistic skills. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN ART 10)

165B Composition in Painting II
1.5 hours lecture, 4.5 hours lab, 3 units
A continuation of Fine Art 165A. Advanced work. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

165C Composition in Painting III
1.5 hours lecture, 4.5 hours lab, 3 units
A continuation of Fine Art 165B. Enrollment based on space availability and previous high achievement/portfolio. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

165D Composition in Painting IV
1.5 hours lecture, 4.5 hours lab, 3 units
A continuation of Fine Art 165C. Enrollment based on space availability and previous high achievement/portfolio. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

170A Contemporary Crafts I
1.5 hours lecture, 4.5 hours lab, 3 units
An introduction to crafts, stressing design principles and expressive quality. Offers problems in a variety of media including, but not limited to, ceramics, wood, fabrics, and enamels. (FT) Transfer Credit: CSU and/or private coll/univ.

170B Contemporary Crafts II
1.5 hours lecture, 4.5 hours lab, 3 units
Crafts problems adjusted to students' individual needs and interests. (FT) Transfer Credit: CSU and/or private coll/univ.

170C Contemporary Crafts III
1.5 hours lecture, 4.5 hours lab, 3 units
A continuation of Fine Art 170A and 170B. Provides advanced studies in two areas with structured development of the media. (FT) Transfer Credit: CSU and/or private coll/univ.

175A Sculpture I
1.5 hours lecture, 4.5 hours lab, 3 units
Advisory: Fine Art 150A with a grade of "C" or better, or equivalent.
This course is an introduction to sculptural materials, processes and forms. The course helps students to appreciate the shapes and functions of sculpture (past and present) in the context of hands-on experience. This course is intended for transfer students planning to major in art and for all students interested in working in three-dimensional media. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN ART 12)

185 Lettering
1.5 hours lecture, 4.5 hours lab, 3 units
A basic course emphasizing freehand techniques of brush and pen lettering. Letter forms, styles, spacing and layout problems are presented. (FT) Transfer Credit: CSU and/or private coll/univ.

195A Ceramics I
1.5 hours lecture, 4.5 hours lab, 3 units
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Level W5/R5.
This course is an introduction to the design and construction of ceramic objects. Students acquire techniques of hand-building and throwing on the potter's wheel as they produce ceramic forms with visually interesting three dimensional shapes and varied surface treatment. This course is intended for transfer students planning to major in art and for all students interested in designing objects in three dimensions. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN ART 6)

195B Ceramics II
1.5 hours lecture, 4.5 hours lab, 3 units
Continuation of Fine Art 195A with advanced ceramic problems using both wheel and handbuilding techniques applying traditional and contemporary approaches. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

195C Ceramics III
1.5 hours lecture, 4.5 hours lab, 3 units
Continuation of Fine Art 195A/B. Ceramic problems adjusted to student's individual interest and expressive direction, with further development of knowledge, skills and philosophy through individual creative projects. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.
198A Introduction to Printmaking I  
1.5 hours lecture, 4.5 hours lab, 3 units  
Advisory: Fine Art 150A and Fine Art 155A, each with a grade of "C" or better, or equivalent.  
This course is an introduction to the basic printmaking media of intaglio, relief, and monoprinting and is designed for art students and anyone interested in printmaking. Students study techniques to create and print plates; investigate papers and select for properties; analyze, formulate and compare aesthetic strategies for image making; and practice principles of editioning and conservation of prints. This course satisfies requirements for the major in art with a two-dimensional or design emphasis. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

210A Life Drawing I  
1.5 hours lecture, 4.5 hours lab, 3 units  
Drawing from live models. Dynamic representation of human form and expressive use of figure in composition. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN ART 24)

210B Life Drawing II  
1.5 hours lecture, 4.5 hours lab, 3 units  
Drawing from live models. Dynamic representation of the human form and expressive use of figure in composition. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

210C Advanced Life Drawing III  
1.5 hours lecture, 4.5 hours lab, 3 units  
Figure drawing and composing related to the individual interests of the student. Enrollment based upon space availability and previous high achievement/portfolio. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

270 Work Experience  
Hours by Arrangement: 1-4 units  
Grade Only  
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, including work experience.  
A program of on-the-job learning experiences for students employed in a job related to their major. The combined maximum credit for all work experience courses from all disciplines may not exceed 16 units. (FT) Transfer Credit: CSU and/or private coll/univ.

282 Open Studio  
3-6 hours lab, 1-2 units  
A workshop to reinforce the aesthetic awareness and technical skills introduced in the studio art courses. (FT) Transfer Credit: CSU and/or private coll/univ.  
This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

101 Descriptive Astronomy  
3 hours lecture, 3 units  
This course is an introductory survey of contemporary astronomy. Topics covered include the solar system, stars and stellar evolution, the Milky Way galaxy and cosmology. This course is designed for students planning to take advanced courses in the Physical and Earth Sciences and for transfer students planning to major in astronomy. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

111 Astronomy Laboratory  
3 hours lab, 1 unit  
Corequisite: Completion of or concurrent enrollment in Astronomy 101.  
Includes use of astronomical coordinates and use of celestial sphere. Familiarization with star charts. Experiments in spectroscopy. Some evening observing. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Astronomy (ASTR) 109 and 111 combined: maximum credit, one course.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.
52 Orientation to Basic Automotive Components, Tools and Safety Procedures  
1-3 hours lecture, 1-3 units  
Grade Only

This course is an orientation to basic automotive components, tools, and safety procedures commonly used in the industry today. This course contains an overview of the entire basic automobile. Upon completion the student will be able to explain the safe use of tools used in the automotive shop and the functions of the basic automotive components. Credit, Non-Degree applicable. (FT)

53 Automotive Introductory and Safety  
3 hours lecture, 3 units  
Grade Only

Advisory: English 51 with a grade of "C" or better, or equivalent, or Assessment Skill Level W5.  
Limitation on Enrollment: This course is not open to students with previous credit for Automotive 112.  
This course provides students with an overview of the automotive industry and a basic understanding of how each system within an automobile works. Students learn how to operate basic hand, power, and lifting tools as well as the major measuring instruments and devices used by automotive technicians. This course is intended as a first course for automotive students or as a basic core course for the entire automotive program. (FT) Associate Degree Credit.

54A Introduction to Automotive Engines and Related Systems  
1-3 hours lecture, 1-3 units  
Grade Only

Advisory: English 51 with a grade of "C" or better, or equivalent, or Assessment Skill Level W5; and  
Mathematics 32 with a grade of "C" or better, or equivalent, or Assessment Skill Level M20.  
This is an introductory course to the automotive internal combustion engine. Course content contains an introduction of internal combustion systems including fuel, electrical, cooling and lubrication. Credit for this course does not apply to the associate degree. (FT)

54B Introduction to Automotive Electricity and Electrical Systems  
1-3 hours lecture, 1-3 units  
Grade Only

Advisory: English 51 with a grade of "C" or better, or equivalent, or Assessment Skill Level W5; and  
Mathematics 32 with a grade of "C" or better, or equivalent, or Assessment Skill Level M20. This is an introductory course to the basic automotive electricity and electrical systems. The course content includes an introduction of wiring systems and functions of the electrical components. At the end of this course the student will be able to describe the basic automotive electrical systems. Credit, Non-Degree applicable. (FT)

55 Basic Electricity and Electrical Systems Fundamentals  
1.5 hours lecture, 4.5 hours lab, 3 units  
Grade Only

Advisory: English 51 or English 56 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 or R5; and  
Mathematics 32 with a grade of "C" or better, or equivalent, or Assessment Skill Level M20.  
Limitation on Enrollment: This course is not open to students with previous credit for Automotive 114B.  
Students learn about basic electrical principles, body wiring, and starting and charging systems. Topics include the construction, operation, and function of electrical components for Toyotas, Chryslers, Hondas, and/or other manufacturers. (FT) Associate Degree Credit.

57 Auto Tech Skills and Career Opportunities  
1-3 hours lecture, 1-3 units  
Grade Only

This course will contain an introduction to the Automotive Technology program at Miramar College, including its manufacturer relationship training opportunities in the automotive industry. This course will contain an overview of the personal skills necessary for successful entry into the program and the career ladder opportunities in the automotive industry with a certificate and/or degree. Credit for this course does not apply to the associate degree. (FT)

62 Electrical Mastery  
3 hours lecture, 3 hours lab, 4 units  
Grade Only

Advisory: Automotive 55 with a grade of "C" or better, or equivalent.  
Limitation on Enrollment: This course is not open to students with previous credit for Automotive 122.  
This course prepares students to diagnose and repair basic-to-complex electrical systems used in modern automobiles. It includes a review of the principles of electrical circuits, the study of electrical devices, the use of test equipment to diagnose malfunctions, and the examination of various computerized control systems. The course emphasizes the development of a...
systematic diagnostic and repair procedure. Students use Toyota, Chrysler, or Honda-specific materials; they may also use electric vehicles or components designed by other companies. (FT) Associate Degree Credit.

64 Advanced Fuel and Emissions Systems
1 hour lecture, 3 hours lab, 2 units
Grade Only
Advisory: Automotive 62 with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with previous credit for Automotive 124. This course prepares students to diagnose and repair carbureted, fuel injected, and electronically controlled fuel systems. Topics include automotive fuel characteristics, fuel delivery, emission control, and engine performance. This course may include Toyota, Chrysler, or Honda-specific class materials. (FT) Associate Degree Credit.

66 Drivability
1 hours lecture, 3 hours lab, 2 units
Grade Only
Advisory: Automotive 64 with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with previous credit for Automotive 126. Students learn how to diagnose and troubleshoot automotive power-train systems. The course emphasizes the development of a systematic troubleshooting process that uses diagnostic test equipment. It may incorporate Toyota, Chrysler, or Honda-specific class materials as well as up-to-date materials from other manufacturers. (FT) Associate Degree Credit.

68 Climate Control Systems
1.5 hours lecture, 3 hours lab, 2.5 units
Grade Only
Advisory: English 51 and English 56 each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and Mathematics 32 with a grade of "C" or better, or equivalent, or Assessment Skill Level M20.
Limitation on Enrollment: This course is not open to students with previous credit for AUTO 138. This course introduces students to climate control systems and focuses on heating and air conditioning systems and related components. Students diagnose and repair common problems with climate control systems, including electrical and pneumatic controls, evacuation and recharging of air conditioning, and system installation. The course includes Chrysler, Toyota, and/or Honda-specific class materials or other up-to-date materials. (FT) Associate Degree Credit.

95 Automotive Technology Internship
Hours by Arrangement, 1 - 2 units
Grade Only
Limitation on Enrollment: Must obtain an Add Code from Work Experience Coordinator for enrollment. Students may not earn credit for Automotive Technology 090 simultaneously. This course provides on-the-job experience in students' current course of study. Students receive pay for work in an industrial setting equivalent to 320 hours for each unit earned. The combined maximum credit for all work experience courses from all disciplines may not exceed 16 units. This course in combination with Automotive 275 may be taken four times for credit. (FT) Associate Degree Credit.

107 Orientation to Automotive Industry
3 hours lecture, 3 units
Grade Only
Orientation to the automotive industry with emphasis on the dealer organization, employment requirements, and customer service. (FT) Associate Degree Credit.

114A Engine and Related Systems
1.5 hours lecture, 4.5 hours lab, 3 units
Grade Only
Advisory: English 51 with a grade of "C" or better, or equivalent, or Assessment Skill Level W5; and Mathematics 32 with a grade of "C" or better, or equivalent, or Assessment Skill Level M20.
Limitation on Enrollment: This course is not open to students with credit for Automotive Technology 114. Detailed study of the internal combustion engine. Engines will be disassembled, parts identified and measured, and engines properly reassembled. Includes review of engine systems related to fuel, electrical cooling and lubrication. Course will include Toyota or Chrysler specific class materials. Other up-to-date materials will also be used. (FT) Associate Degree Credit.

142 Manual Transmissions Drive Lines
2 hours lecture, 6 hours lab, 4 units
Grade Only
Advisory: English 51 with a grade of "C" or better, or equivalent, or Assessment Skill Level W5; and Mathematics 32 with a grade of "C" or better, or equivalent, or Assessment Skill Level M20.
Principles of power transmissions as applied to the automobile. Emphasis on development of a systematic approach to diagnosis and repair of common malfunctions. Practice includes removal and disassembly/reassembly of manual transmissions, transaxles, and differentials. Course will include Toyota
specific materials. Other up-to-date materials will also be used. (FT) Associate Degree Credit.

144 Automatic Transmissions/Axles

2 hours lecture, 6 hours lab, 4 units

Grade Only

Advisory: English 51 with a grade of “C” or better, or equivalent, or Assessment Skill Level W5; and Mathematics 32 with a grade of “C” or better, or equivalent, or Assessment Skill Level M20.

Principles and operation of hydraulically and electronically controlled transmissions and transaxles. Emphasis on hydraulics, components, powerflow, and the development of a systematic approach to diagnosis and repair. Practice includes the removal, disassembly, inspection, and rebuilding of hydraulically and electronically controlled transmissions/transaxles.

Course will include Toyota or Chrysler specific class materials. Other up-to-date materials will be used. (FT) Associate Degree Credit.

152 Automotive Brake Systems

2 hours lecture, 6 hours lab, 4 units

Grade Only

Advisory: English 51 with a grade of “C” or better, or equivalent, or Assessment Skill Level W5; and Mathematics 32 with a grade of “C” or better, or equivalent, or Assessment Skill Level M20.

Brake system rebuilding and replacement procedures, including the examination and measuring of components, brake drum machining, disc rotor machining, rebuilding wheel cylinder, disc calipers, master cylinders, bleeding brakes, relining drum/disc brakes, repairing power assist units, A.S.B. diagnosis, and California brake adjuster C license preparation.

Course will include Toyota or Chrysler specific class materials. Other up-to-date materials will also be used. (FT) Associate Degree Credit.

154 Suspension and Steering Systems

2 hours lecture, 6 hours lab, 4 units

Grade Only

Advisory: English 51 with a grade of “C” or better, or equivalent, or Assessment Skill Level W5; and Mathematics 32 with a grade of “C” or better, or equivalent, or Assessment Skill Level M20.

Theory and repair covering the design and operation of all components of the suspension, steering, four-wheel steering, and four-wheel alignment systems of late-model automobiles and light-duty trucks. Course will include Toyota or Chrysler specific materials. Other up-to-date materials will also be used. (FT) Associate Degree Credit.

189 Introduction to Alternative Fuels and Electric Vehicles

2 hours, 2 units

Grade Only

Advisory: English 51 and English 56 each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5; and Mathematics 95 with a grade of “C” or better, or equivalent, or Assessment Skill Level M40.

This is an introductory course to alternative fuels and electric vehicles and includes a study of the basic theory of spark ignition, compression ignition engines, and the performance of these engines running on different alternative fuels. The theory of electric vehicles, both old and new, is also introduced. (FT) Associate Degree Credit.

195 The Clean Air Car

5 hours, 5 units

Grade Only

Prerequisite: Automotive Technology 64 or 124 with a grade of “C” or better, or equivalent.

Required 80 hours preparation course for smog license examination. Review of current state examination content and procedures. Basic knowledge of automotive fuel, electrical, and emission systems is assumed.

Course will include Toyota or Chrysler specific materials. Other up-to-date materials will also be used. (FT) Associate Degree Credit.

270 Work Experience

Hours by Arrangement, 1-4 units

Grade Only

Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, including work experience.

A program of on-the-job learning experiences for students employed in a job related to their major. The combined maximum credit for all work experience courses from all disciplines may not exceed 16 units. Associate Degree Credit.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Grade Type</th>
<th>Advisory</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVIA 105</td>
<td>Introduction to Aviation and Aerospace</td>
<td>3</td>
<td>Grade Only</td>
<td>Grade Only</td>
<td>Development of aviation and space flight with emphasis on the technological significance of the various events, including the derived benefits, direct application, and spin-offs from the space program; simple explanations are offered as to how airplanes, gliders, helicopters, balloons and airships fly and how spacecrafts exit, orbit and reenter the Earth's gravity field; importance of research and development, its long range effect on the aviation and aerospace industry; evolution of the modern aircraft; design of aircraft of the future; flight physiology; careers in aviation and in aerospace. Transfer Credit: CSU and/or private coll/univ.</td>
</tr>
<tr>
<td>AVIA 120</td>
<td>Aviation Management</td>
<td>3</td>
<td>Grade Only</td>
<td>Grade Only</td>
<td>An introduction to the major aspects of the management of aviation operations. Included are management functions, organization, manpower management and administration, physical operations, financial control, impact of regulations, marketing, profit orientation, leases, community relations, and decision making. Transfer Credit: CSU and/or private coll/univ.</td>
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<tr>
<td>AVIA 130</td>
<td>Aviation Weather and Physiology</td>
<td>3</td>
<td>Grade Only</td>
<td>Grade Only</td>
<td>Meteorology and physiology for the private, instrument and commercial pilot and flight instructor. Includes the theory of weather, the effects of weather on the operation of aircraft, the collection, dissemination, interpretation and use of weather data. Provides information on the physiological aspects and hazards of flight; includes the effects to the human body of reduced oxygen, motion, drugs, alcohol and stress. Transfer Credit: CSU and/or private coll/univ.</td>
</tr>
<tr>
<td>AVIA 140</td>
<td>Private Pilot Aeronautical Instruction</td>
<td>3</td>
<td>Grade Only</td>
<td>Grade Only</td>
<td>Advisory: English 51 and English 56 each with a grade of “C” or better or equivalent, or Assessment Skill Levels W5 and R5; and Mathematics 032 with a grade of &quot;C&quot; or better, or equivalent, or Assessment Skill Level M20. Provides basic aeronautical knowledge for the beginning pilot. Instruction includes the principles of flight, engine operations, aircraft performance, Federal Aviation Regulations, flight publications, and a special emphasis on air navigation. This course, with Aviation 130, fulfills all requirements for the Federal Aviation Administration (FAA) Private Pilot written knowledge test. Transfer Credit: CSU and/or private coll/univ.</td>
</tr>
<tr>
<td>AVIA 200</td>
<td>Commercial Pilot Instruction</td>
<td>3</td>
<td>Grade Only</td>
<td>Grade Only</td>
<td>Advisory: Aviation 140 and English 56 each with a grade of “C” or better or equivalent, or Assessment Skill Level R5; and Mathematics 032 with a grade of &quot;C&quot; or better, or equivalent, or Assessment Skill Level M20. Provides aeronautical knowledge for the instrument rating. Includes instruction in applicable Federal Aviation Regulations, basic instrument flight, electronic aids to navigation, the National Airspace System, navigation charts, air traffic control procedures, planning and conducting flights under instrument flight rules. Completion of this course, together with Aviation 130, prepares the student for the FAA instrument rating written examination. Transfer Credit: CSU and/or private coll/univ.</td>
</tr>
<tr>
<td>AVIA 210</td>
<td>Instrument Rating Instruction</td>
<td>3</td>
<td>Grade Only</td>
<td>Grade Only</td>
<td>Advisory: Aviation 140 with a grade of “C” or better, or hold Private Pilot Certificate. Provides aeronautical knowledge for the instrument rating. Includes instruction in applicable Federal Aviation Regulations, basic instrument flight, electronic aids to navigation, the National Airspace System, navigation charts, air traffic control procedures, planning and conducting flights under instrument flight rules. Completion of this course, together with Aviation 130, prepares the student for the FAA instrument rating written examination. Transfer Credit: CSU and/or private coll/univ.</td>
</tr>
</tbody>
</table>
| AVIA 260   | Flight Instructor, Ground Instruction             | 3     | Grade Only | Grade Only                                                                | Advisory: Aviation 140 and English 51 and 56 and Mathematics 32, each with a grade of "C" or better, or equivalent, or Assessment Levels W5 and R5 and M20 or hold a Private Pilot Certificate. Students learn about the fundamentals of flight instruction and how people learn. Topics include instructional methods, aeromedical information important to the flight instructor, the integrated method of flight instruction, aerodynamics as related to
aircraft performance and characteristics, the flight training syllabus, flight instructor responsibilities, flight training maneuvers and procedures, and Federal Aviation Regulations applicable to the flight instructor. (FT) Transfer Credit: CSU and/or private coll/univ

270 Work Experience
Hours by Arrangement: 1-4 units
Grade Only

Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, including work experience.

A program of on-the-job learning experience for students employed in a job related to their major. The combined maximum credit for all work experience courses from all disciplines may not exceed 16 units. Transfer Credit: CSU and/or private coll/univ.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270).

Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

075 Basic Avionics Theory
3 hours lecture, 3 units
Grade Only

Advisory: Mathematics 32 with a grade of “C” or better, or equivalent, or Assessment Skill Level M20; English 51 or 56 with a grade of “C” or better, or equivalent, or Assessment Skill Level W5 or R5.

This course utilizes classroom instruction in the field of aviation communication, navigation, and auto-pilot systems. It provides students interested in aviation electronics with valuable basic information concerning the identification of components and theory and operation of the following systems: Voice communication radio systems, VHF navigation radio systems (ILS, VOR, and ADF), UHF navigation radio systems (ILS, DME, GPS, and Transponders), and auto-pilot systems (Flight Directors and Automatic Flight Guidance Systems). (FT) Associate Degree Credit.

100 General Aviation Technology Theory
12 hours, 12 units
Grade Only

Advisory: Mathematics 32 with a grade of “C” or better, or equivalent, or Assessment Skill Level M20; English 42 with a grade of “C” or better, or equivalent, or Assessment Skill Level R4.

Limitation on Enrollment: This course is not open to students with credit for Aviation Maintenance Technology 101A, 101B, 101C, or 101D.

This course taken in conjunction with AVIM 100S is the recommended first semester course load for students who want a Mechanic’s Certificate with Airframe and Power plant ratings. Students learn about the atmosphere, aerodynamic theory, aircraft structures, and flight controls. The course also introduces students to Federal Aviation Regulations, maintenance forms and publications, weight and balance procedures, aircraft fuel and instrument systems, fluid lines and fittings, corrosion control, aircraft hardware identification, materials and processes, non-destructive testing, and precision measuring devices. (FT) Transfer Credit: CSU and/or private coll/univ.

100S General Aviation Maintenance Technology Practices
12 hours lab, 4 units
Grade Only

Corequisite: Completion of or concurrent enrollment in Aviation Maintenance Technology 100 with a grade of “C” or better, or equivalent.

Advisory: Mathematics 032 and English 042 with a grade of “C” or better, or equivalent, or Assessment Skill Levels M20 and R4.

Limitation on Enrollment: This course is not open to students with previous credit for Aviation Maintenance Technology 50, 100L, 102A, 102B, 102C, 102D, or 102E.

This course provides practical training in the use of basic hand and power tools, safety wiring techniques, identification and sharpening of twist drills, proper torque methods, Federal Aviation Administration (FAA) forms and publications, performance of aircraft weight and balance, aircraft fuel and instrument systems, materials and processes, aircraft hardware, corrosion control, drafting and blueprint reading, applied mathematics, and applied physics. The content of this course meets the minimum requirements of Federal Aviation Regulation (FAR) Part 147; Appendix B; Subjects B, C, D, E, F, G, H, I, J, K, and L. FAR Part 147, Appendix C, Section II, Subjects D and F. (FT) Transfer Credit: CSU and/or private coll/univ.
103A Aircraft Wood, Fabric, Finishing and Composite Structures
3 hours, 3 units
Grade Only
Prerequisite: Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent. Students learn about the design, inspection, servicing, testing, and repair of aircraft wood, composite, plastic enclosures, interior furnishings, and seatbelts. (FT) Transfer Credit: CSU and/or private coll/univ.

103B Aircraft Welding and Sheetmetal Structures
3 hours lecture, 3 units
Grade Only
Prerequisite: Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent. Students learn about designing, inspecting, servicing, testing, and repairing aircraft sheet metal and welded structures. Subjects include identifying and selecting specific aluminum and steel alloys, selecting appropriate fasteners, and using gas and electric arc welding equipment. (FT) Transfer Credit: CSU and/or private coll/univ.

103C Aircraft Hydraulic Systems
3 hours lecture, 3 units
Grade Only
Prerequisite: Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent. Students learn about designing, inspecting, servicing, testing, and repairing aircraft hydraulic and pneumatic components and systems. Subjects include safety considerations, fluid types, seal types, component parts, and troubleshooting issues. (FT) Transfer Credit: CSU and/or private coll/univ.

103D Aircraft Landing Gear Systems
3 hours, 3 units
Grade Only
Prerequisite: Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent. This course is a study of how to inspect, check, service, and repair landing gear retraction systems shock struts, brakes, wheels, tires and steering systems. It includes how to inspect, check, service, and repair speed and take-off warning systems, electrical brake controls, anti-skid systems, landing gear position indicating and warning systems. (FT) Transfer Credit: CSU and/or private coll/univ.

104A Applied Aircraft Wood, Fabric, Finishing and Composite Structures
4.5 hours lab, 1.5 units
Grade Only
Prerequisite: Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent. Corequisite: Completion of or concurrent enrollment in Aviation Maintenance Technology 103A with a grade of "C" or better, or equivalent. Students learn about designing, inspecting, servicing, testing, and repairing aircraft wood, composite, and plastic structures. They also learn about aircraft interior furnishings and seatbelts. (FT) Transfer Credit: CSU and/or private coll/univ.

104B Applied Aircraft Welding and Sheetmetal Structures
4.5 hours lab, 1.5 units
Grade Only
Prerequisite: Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent. Corequisite: Completion of or concurrent enrollment in Aviation Maintenance Technology 103B with a grade of "C" or better, or equivalent. Students learn about designing, inspecting, servicing, testing, and repairing aircraft sheet metal and welded structures. Subjects include gas and electric arc welding, sheet metal layout, bending, and assembly techniques, and conventional and special fasteners. (FT) Transfer Credit: CSU and/or private coll/univ.

104C Applied Aircraft Hydraulic Systems
3 hours lab, 1 units
Grade Only
Prerequisite: Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent. Corequisite: Completion of or concurrent enrollment in Aviation Maintenance Technology 103C with a grade of "C" or better, or equivalent. Students learn about designing, inspecting, servicing, testing, and repairing aircraft hydraulic and pneumatic components and systems. Subjects include safety considerations, fluid types, seal types, component parts, and troubleshooting issues. (FT) Transfer Credit: CSU and/or private coll/univ.

104D Applied Aircraft Landing Gear Systems
3 hours lab, 1 unit
Grade Only
Corequisite: Completion of or concurrent enrollment in Aviation Maintenance Technology 103D with a grade of "C" or better, or equivalent.
This practical hands-on course allows the student to operate, inspect check, service and repair landing gear retraction systems, shock struts, brakes, wheels, tires and steering systems, including how to inspect, check, service and repair speed and take-off warning systems and components, electrical brake controls, anti-skid systems, landing gear position and warning systems. (FT) Reference: (FAR 147, Appendix C: Section II: Subjects A, H.) Transfer Credit: CSU and/or private coll/univ.

105A Aircraft Cabin Atmosphere Control
1.5 hours lecture, 1.5 units
Grade Only
Prerequisite: Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent. Students learn about the design of cabin atmosphere control systems and aircraft protection systems, and they learn how to inspect, maintain, and repair these systems. Subjects include heating, cooling, pressurization, oxygen, and ice and rain systems and components. (FT) Transfer Credit: CSU and/or private coll/univ.

105B Aircraft Assembly, Rigging and Inspection
1.5 hours, 1.5 units
Grade Only
Prerequisite: Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent. This course is a study of fixed wing and rotary wing aircraft assembly techniques, to include: checking aircraft alignment, balance and rigging of movable surfaces, jacking of aircraft, and inspecting aircraft for conformity and airworthiness. (FT) Transfer Credit: CSU and/or private coll/univ.

106A Aircraft Cabin Atmosphere Control
1.5 hours lab, 0.5 units
Grade Only
Prerequisite: Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent. Corequisite: Completion of or concurrent enrollment in Aviation Maintenance Technology 105A with a grade of "C" or better, or equivalent. This course utilizes practical application in the techniques used to operate, maintain, and repair heating, cooling, air conditioning, pressurization, oxygen, and ice and rain control systems and components. (Reference FAR 147, Appendix C, Section II: Subjects C., I.) (FT) Transfer Credit: CSU and/or private coll/univ.

106B Applied Aircraft Assembly, Rigging and Inspection
3 hours lab, 1 unit
Grade Only
Corequisite: Completion of or concurrent enrollment in Aviation Maintenance Technology 105B with a grade of "C" or better, or equivalent. This practical hands-on course teaches the student to apply fixed wing and rotary wing aircraft assembly techniques. It covers checking aircraft alignment, balance and rigging of movable surfaces, application of aircraft jacking procedures, and inspecting aircraft for conformity and airworthiness. (FT) Reference: (FAR 147 Appendix C; Section I: Subjects F., G.) Transfer Credit: CSU and/or private coll/univ.

107B Turbines Engines
3 hours, 3 units
Grade Only
Prerequisite: Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent. This course is a study of the theory of operation, design, overhaul, inspection, servicing, repair and troubleshooting of turbine engines including turbo-jet, turbo-fan, turbo-prop, and turbo-shaft aircraft powerplants and their related subsystems. (FT) Transfer Credit: CSU and/or private coll/univ.

108B Turbines Engines Laboratory
3 hours lab, 1 unit
Grade Only
Corequisite: Completion of or concurrent enrollment in Aviation Maintenance Technology 107B with a grade of "C" or better, or equivalent. This course is the practical application of the theory of operation, design, overhaul, inspection, servicing, repair and troubleshooting of turbine engines including turbo-jet, turbo-fan, turbo-prop, and turbo-shaft aircraft powerplants and their related subsystems. (FT) Reference: (FAR 147, Appendix D; Section 2: Subjects F., 20., 21., 22., G., 24., 25., Subjects H., 26., 27., 28.) Transfer Credit: CSU and/or private coll/univ.

109A Airframe Electrical Systems
3 hours lecture, 3 units
Grade Only
Prerequisite: Aviation Maintenance Technology 100, 100S, 120, and 121A, each with a grade of "C" or better, or equivalent. Students learn about the design, installation, and operation of alternating and direct current systems. Subjects include communication and navigation systems, wiring, control circuits, switches, indicators, electrical power generation and control, circuit...
protection devices, and other electronic systems likely to be encountered by an aircraft technician. (FT) Transfer Credit: CSU and/or private coll/univ.

109B Powerplant Ignition Systems
2 hours lecture, 2 units
 Grade Only
Prerequisite: Aviation Maintenance Technology 100, 100S, 120, and 121A, each with a grade of "C" or better, or equivalent.
Students learn about the design, installation, and operation of powerplant ignition systems. Subjects include magnetos, spark plug harnesses, spark plugs, solid-state exciters, turbine igniters, and other ignition systems likely encountered by an aircraft maintenance technician. (FT) Transfer Credit: CSU and/or private coll/univ.

109C Powerplant Electrical Systems
3 hours lecture, 3 units
 Grade Only
Prerequisite: Aviation Maintenance Technology 100, 100S, 120 and 121A, each with a grade of "C" or better, or equivalent.
Students learn about the design, installation, and operation of both direct and alternating powerplant electrical current systems. Subjects include lead acid and nickel cadmium batteries, wiring, control circuits, switches, indicators, electrical power generation and control, circuit protection devices, and other electrical systems likely encountered by an aircraft maintenance technician. (FT) Transfer Credit: CSU and/or private coll/univ.

109D Aircraft Fire Protection and Digital Logic
1 hour, 1 unit
 Grade Only
Prerequisite: Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent.
This airframe and powerplant course covers all aspects of fire protection systems. It includes the design of systems, how to inspect, check, service, troubleshoot and repair detection and extinguishing systems. It also covers digital logic systems and basic computer applications used in the aircraft industry. (FT) Transfer Credit: CSU and/or private coll/univ.

110A Airframe Electrical Systems Laboratory
3 hours lab, 1 units
 Grade Only
Prerequisite: Aviation Maintenance Technology 100, 100S, 120, 121A, each with a grade of "C" or better, or equivalent.
Corequisite: Aviation Maintenance Technology 109A.
Students learn practical applications in the design, installation, troubleshooting, repair, and operation of both direct and alternating current systems. Subjects include communication and navigation systems, wiring, control circuits, switches, indicators, electrical power generation and control, circuit protection devices, and other electronic systems likely encountered by an aircraft maintenance technician. Meets the requirements of FAR 147 appendix C; Section II: Subjects E & G. (FT) Transfer credit: CSU and/or private coll/univ.; and F.A.A. approved private institutions.

110B Applied Powerplant Ignition Systems
1.5 hours lab,.5 units
 Grade Only
Prerequisite: Aviation Maintenance Technology 100, 100S, 120, 121A, each with a grade of "C" or better, or equivalent.
Corequisite: Aviation Maintenance Technology 109B.
Students learn practical applications in the design, installation, servicing, troubleshooting, repair, and operation of powerplant ignition systems. Subjects include magnetos, spark plug harnesses, spark plugs, solid-state exciters, turbine igniters, and other ignition systems likely encountered by an aircraft maintenance technician. This course meets the requirements of FAR 147, Appendix D, Section II: Subject E. (FT) Transfer credits: CSU and/or private coll/univ.

110C Powerplant Electrical Systems Laboratory
1.5 hours lab, 0.5 units
 Grade Only
Prerequisite: Aviation Maintenance Technology 100, 100S, 120 and 121A, each with a grade of "C" or better, or equivalent.
Corequisite: Aviation Maintenance Technology 109C.
Students learn about the design, installation, troubleshooting, repair, and operation of both direct and alternating current systems. Subjects include lead acid and nickel cadmium battery maintenance, wiring, control circuits, switches, indicators, electrical power generation and control, circuit protection devices, and other electrical systems likely encountered by an aircraft maintenance technician. This course meets the requirements of FAR 147 appendix D; Section II: Subjects A and C. (FT) Transfer Credit: CSU and/or private coll/univ.

111C Reciprocating Engines I
3 hours, 3 units
 Grade Only
Prerequisite: Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent.
A study of the theory of operation, design, overhaul, inspection and repair of aircraft reciprocating powerplants. (FT) Transfer Credit: CSU and/or private coll/univ.

### 111D Reciprocating Engines II

**3 hours, 3 units**  
**Grade Only**  
**Prerequisite:** Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent.  
A study of the operation, troubleshooting, checking, repairing, servicing, installing, removing and inspecting of aircraft reciprocating powerplant installations. (FT) Transfer Credit: CSU and/or private coll/univ.

### 112C Reciprocating Engines I Laboratory

**6 hours lab, 2 units**  
**Grade Only**  
**Corequisite:** Completion of or concurrent enrollment in Aviation Maintenance Technology 111C with a grade of "C" or better, or equivalent.  
This practical hands-on course allows students to apply the theory of operation, overhaul, inspection and repair of aircraft reciprocating powerplants. (FT) Reference: (FAR 147; Appendix D; Section I; Subjects A; 1, 2) Transfer Credit: CSU and/or private coll/univ.

### 112D Reciprocating Engines II Laboratory

**3 hours lab, 1 unit**  
**Grade Only**  
**Corequisite:** Completion of or concurrent enrollment in Aviation Maintenance Technology 111D with a grade of "C" or better, or equivalent.  
Practical application in the operation, installation, removal, inspecting, repairing, servicing, checking and troubleshooting of powerplant installations. (FT) Reference: (FAR 147; Appendix D; Section I; Subjects A., 3., 4., C., 8.) Transfer Credit: CSU and/or private coll/univ.

### 120 Basic D.C. Electronics Theory

**3 hours, 3 units**  
**Grade Only**  
**Advisory:** Completion of Mathematics 32 with a grade of "C" or better or equivalent, or Assessment Skill Level M20; and Completion of English 51 or 56 with a grade of "C" or better or equivalent, or Assessment Skill Levels W5 or R5.  
Limitation on Enrollment: This course is not open to students with credit for Electronics Technology 120 or 120A, Digital Technology 124, or Electronics Systems 124.  
A study of direct current theory with valuable basic information concerning atomic theory; voltage, current, resistance, power; electromagnetism; conductors; capacitance; inductance; and series, parallel, and series-parallel circuit analysis. Emphasis is placed on the theoretical application of Ohm’s and Kirchoff’s laws. (FT) Transfer Credit: CSU and/or private coll/univ.

### 121A Basic D.C. Electronics Lab

**4.5 hours lab, 1.5 units**  
**Grade Only**  
**Advisory:** Completion of Mathematics 32 and English 51 or 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels M20 and W5 or R5.  
Limitation on Enrollment: This course is not open to students with credit for Electronics Technology 121, 121A, or 123; Digital Technology 124L; or Electronics Systems 124.  
This course utilizes practical applications of direct current electronics theory. It provides students interested in direct current theory with valuable basic skills concerning voltage, current, resistance, power, electromagnetism, conductors, capacitance, inductance, series, parallel, and series-parallel circuit analysis. Emphasis is placed on the proper use of multimeters and the troubleshooting of direct current circuits. The content of this course meets the minimum requirements of Federal Aviation Regulation (FAR) Part 147, Appendix B, Subject A. (FT) Transfer Credit: CSU and/or private coll/univ.

### 241 Aircraft Propeller Systems Lecture

**3 hours lecture, 3 units**  
**Grade Only**  
**Prerequisite:** Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent.  
Limitation on Enrollment: This course is not open to students with credit for Aviation Maintenance Technology 107A.  
A study of aircraft propellers, propeller aerodynamics, theory of operation, inspection, checks, troubleshooting, and maintenance of reciprocating and turboprop controllable-pitch propellers, and propeller components. (FT) Transfer Credit: CSU and/or private coll/univ.

### 242 Aircraft Propeller Systems Laboratory

**3 hours lab, 1 unit**  
**Grade Only**  
**Prerequisite:** Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent.
**Limitation on Enrollment:** This course is not open to students with credit for Aviation Maintenance Technology 108A.

The practical application of the installation, removal, inspection, repairs, servicing, and troubleshooting of propellers and propeller system components. (FT) Transfer Credit: CSU and/or private coll/univ.

**249 Induction and Fuel Metering**

3 hours lecture, 3 units  
Grade Only  
Prerequisite: Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent.

**Limitation on Enrollment:** This course is not open to students with credit for Aviation Maintenance Technology 111A.

This course is a study of the theory of operation, design, overhaul, inspection, servicing, repair and troubleshooting of normally aspirated, turbo-charged, and supercharged induction systems, fuel metering systems, anti-detonation systems, and fuel controls in aircraft powerplants. (FT) Transfer Credit: CSU and/or private coll/univ.

**250 Induction and Fuel Metering Lab**

3 hours lab, 1 unit  
Grade Only  
Prerequisite: Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent.

Corequisite: Aviation Maintenance Technology 249.

**Limitation on Enrollment:** This course is not open to students with credit for Aviation Maintenance Technology 112A.

This course is the practical application of the theory of operation, design, overhaul, inspection, servicing, repair and maintenance of aircraft wet and dry sump oil systems; liquid and air powerplant cooling systems; open and collected exhaust powerplant systems; and the identification and selection of lubricants. FAR 147, Appendix D; Section II, Para d; 14., 15., 16., Part I.29.,30., Para J., 31.,32a., 32b. (FT) Transfer Credit: CSU and/or private coll/univ.

**253 Lubrication, Cooling, and Exhaust**

3 hours lecture, 3 units  
Grade Only  
Prerequisite: Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent.

**Limitation on Enrollment:** This course is not open to students with credit for AVIM 111B.

This course is a study of the theory of operation, inspection, checks, service, repair, and maintenance of aircraft wet and dry sump oil systems; liquid and air powerplant cooling systems; open and collected exhaust powerplant systems; and the identification and selection of lubricants. (FT) Transfer Credit: CSU and/or private coll/univ.

**254 Lubrication, Cooling, and Exhaust Lab**

3 hours lab, 1 unit  
Grade Only  
Prerequisite: Aviation Maintenance Technology 100 and 100S, each with a grade of "C" or better, or equivalent.

Corequisite: Aviation Maintenance Technology 253.

**Limitation on Enrollment:** This course is not open to students with credit for Aviation Maintenance Technology 112B.

The practical application of operation, inspection, checks, services, repair, and maintenance of aircraft wet and dry sump oil systems; liquid and air powerplant cooling systems; open and collected exhaust powerplant systems, and the identification and selection of lubricants. FAR 147, Appendix D; Section II, Para d; 14., 15., 16., Part I.29.,30., Para J., 31.,32a., 32b. (FT) Transfer Credit: CSU and/or private coll/univ.

**270 Work Experience**

Hours by Arrangement; 1-4 units  
Grade Only  
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, including work experience.

A program of on-the-job learning experiences for students employed in a job related to their major. The combined maximum credit for all work experience courses from all disciplines may not exceed 16 units. Transfer Credit: CSU and/or private coll/univ.

**370 Topics in Aviation Maintenance Technology**

1-150 hours  
Grade Only  
Continued theory study and shop practice for Aviation Maintenance students who need additional hours in order to satisfy the 1900 instructional hours required by Federal Aviation Regulations Part 147. Hours do not apply to the associate degree.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.
102 Mortgage Brokerage and Banking
4 hours lecture, 4 units
Grade Only
Advisory: English 51 and English 56 and Mathematics 95, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
Limitation on Enrollment: This course is not open to students with credit for BANK 201.
This course is an introduction to the mortgage brokerage and banking industry. Students will learn the history, concepts, vocabulary, loan products and product flow of the mortgage banking industry, and the functions of the many players in a loan transaction. Course content will also include information on the state of the economy and how it affects real estate lending and the secondary markets. In addition, the legal and financial impacts of fraud within the industry will be discussed. Throughout the course, emphasis will be placed on the importance of follow-through, quality customer service, and ethics as they relate to the mortgage brokerage and banking industry. Course content relates specifically to California regulations. (FT) Transfer Credit CSU.

104 Principles of Loan Processing
4 hours lecture, 3 hours lab, 5 units
Grade Only
Advisory: Completion of or concurrent enrollment in BANK 102 and CISC 110, each with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with credit for BANK 202.
This practical, hands-on course teaches the basics of loan processing from application to submission; applicable laws; qualifying and preliminary tax analysis; ways to detect fraud; and how to obtain sufficient documentation to satisfy the underwriters. Additionally, students will learn the importance of setting time priorities, quality customer service, follow-through, and ethics as they relate to the mortgage brokerage and mortgage banking industry. Course content relates specifically to California regulations. (FT) Transfer Credit CSU.

106 Loan Underwriting
5 hours lecture, 5 units
Grade Only
Advisory: Completion of or concurrent enrollment in BANK 104 or equivalent.
Limitation on Enrollment: This course is not open to students with credit for BANK 205.
This course introduces students to FHA, VA, conventional, and other loan underwriting; identifies where underwriting fits into the mortgage process; outlines its components, risks, comparative state laws, rules, and regulations; covers appraisal review and analysis of key areas; and emphasizes both quality control and the fundamental importance of ethics in loan underwriting. Course content relates specifically to California regulations. (FT) Transfer Credit CSU.

108 Principles of Loan Closing
3 hours lecture, 3 hours lab, 4 units
Grade Only
Advisory: BANK 106 with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with credit for BANK 206.
This course is designed to provide students with an analysis of loan documentation, including investor requirements, and the steps required to smoothly close a loan. Course content also includes escrow and its function; title insurance and its function; the interaction between escrow and title companies; loan guarantees and insurance; lock requirements and conditions; loan shipping; review of loan documents; and the fundamental importance of ethics as it pertains to loan closing. Course content relates specifically to California regulations. (FT) Transfer Credit CSU.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

100 Natural History - Environmental Biology
3 hours lecture, 3 hours lab, 4 units
Advisory: Completion of or concurrent enrollment in English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
Lecture topics include basic principles of ecology, the nature of the physical environment, the aquatic environments, the terrestrial environments and population dynamics. This is a community approach, fitting organisms into their proper role in nature. The laboratory is coordinated with lectures emphasizing the plant and animal communities of Southern California.
Several field trips will be required, some may be on the weekend. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Biology (BIOL) 100, 101 and 120 combined: maximum credit, one course. No credit for BIOL 101 if taken after 100.

### 105 Principles of Biology

**3 hours, 3 units**

**Advisory:** English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and Mathematics 95 with a grade of "C" or better, or equivalent, or Assessment Skill Level M40.

**Limitation on Enrollment:** This course is not open to students with credit for Biology 103, 104, 107, or 210A and 210B.

This course is intended as a General Education elective and for students in the Applied Biology and Allied Health Tracks but not the biology major. Students enrolled in this course are recommended to take Biology 106 lab concurrently but this is not compulsory. This course is an examination of living organisms and their environment. Topics that are emphasized include the fundamental chemical and physical processes common to all living organisms, the interactions between organisms and their environment, classical and molecular genetics, metabolism, plant and animal anatomy and physiology, evolution, and cellular and molecular biology. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: No credit for Biology 105, 106, or 107 if taken after 210A/B. Biology 105 and 106 combined with 107: maximum credit, four units. (CAN BIOL 2 when taken with Biology 105) (CAN BIOL SEQ A = BIOL 105 + 106 + 215 + 250)

### 106 Principles of Biology Laboratory

**3 hours lab, 1 unit**

**Advisory:** English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and Mathematics 95 with a grade of "C" or better, or equivalent, or Assessment Skill Level M40.

**Limitation on Enrollment:** This course is not open to students with credit for Biology 103, 104, or 107, or 210A and 210B.

This course is intended as a General Education elective and for students in the Applied Biology and Allied Health Tracks but not the biology major. Students enrolled in this course are recommended to take Biology 105 concurrently but this is not compulsory. The laboratory introduces use of the microscope, experimental design, collection and analysis of data, and techniques of dissection. Laboratory sessions explore life processes common to all living organisms, interactions between organisms and their environment, classical and molecular genetics, metabolism, plant and animal anatomy and physiology, evolution, and cellular and molecular biology. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: No credit for Biology 105, 106, or 107 if taken after 210A/B. Biology 105 and 106 combined with 107: maximum credit, four units. (CAN BIOL 2 when taken with Biology 105) (CAN BIOL SEQ A = BIOL 105 + 106 + 215 + 250)

### 115 Marine Biology

**3 hours lecture, 3 hours lab, 4 units**

**Advisory:** Completion of or concurrent enrollment in English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.

This course in biology is designed to serve as an elective in the natural sciences. This is a survey of the marine organisms, emphasizing their natural history and special adaptations to the ocean environment. Topics include the marine environment, plankton, marine plants, marine invertebrates, fishes, marine birds, and marine mammals. Several field trips are required to local marine habitats, Sea World, Stephen Birch Aquarium and the Natural History Museum. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

### 130 Human Heredity

**3 hours, 3 units**

**Advisory:** English 51 with a grade of "C" or better, or equivalent, or Assessment Skill Level W5.

A course studying mechanisms of human heredity, effects of inheritance on human processes and implications of recent genetic knowledge on the welfare of man. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

### 131 Introduction to Biotechnology

**3 hours lecture, 3 hours lab, 4 units**

**Advisory:** English 51 with a grade of "C" or better, or equivalent, or Assessment Skill Level W5.

This course is intended for students in Applied Biology and Allied Health tracks. This course is a general examination of biology as it relates to the field of biotechnology. Topics that are emphasized include the fundamental chemical processes common in prokaryotic and eukaryotic biology, chemistry of bio-molecules (proteins, enzymes, nucleic acids, and lipids), cellular and molecular biology, basic immunology, and classical and molecular genetics with an emphasis on gene expression and genetic engineering. The laboratory addresses basic skills and techniques common to the biotechnology industry including measuring activity and quantity of proteins, growth and manipulation of
bacteria, genetic engineering and antibody methods. Field trips may be taken during laboratory periods. (FT) Transfer Credit: CSU and/or private coll/univ.

132 Applied Biotechnology
2 hours lecture, 6 hours lab, 4 units
*Advisory:* English 51 and Chemistry 151 or Chemistry 152 and Chemistry 152L or Chemistry 100 and Chemistry 100L, each with a grade of "C" or better, or equivalent, or Assessment Skill Level W5.

Students learn entry-level skills common to the biotechnology industry, such as aseptic techniques, laboratory safety, and biological media and solution preparation. Students also learn about microbial growth, solutions, buffers, separation of cellular components, and macromolecules. (FT) Transfer Credit: CSU and/or private coll/univ.

133 Applied Biotechnology II
2 hours lecture, 6 hours lab, 4 units
*Advisory:* Biology 132 or Biology 105 or Biology 210A and Chemistry 100 and Chemistry 100L, each with a grade of "C" or better, or equivalent.

In this advanced biotechnology training course, students learn about transformation, restriction analysis of DNA, protein analysis, and immunological applications. In the lab, students practice mastering current techniques used in the biotechnology industry. (FT) Transfer Credit: CSU and/or private coll/univ.

135 Biology of Human Nutrition
3 hours, 3 units
*Advisory:* English 51 with a grade of “C” or better, or equivalent, or Assessment Skill Level W5.

A course which relates biological concepts and principles to human nutrition. Lecture and discussion topics will include food composition, carbohydrates, proteins, lipids, vitamins, and minerals; food absorption and utilization; food fads and diets; malnutrition and mental retardation; food value and cost; food processing, food additives, world food and population problems; nutrition and pregnancy, and other topics. Transfer Credit: CSU and/or private coll/univ.; UC.

160 Elements of Human Anatomy and Physiology
3 hours lecture, 3 hours lab, 4 units
*Advisory:* English 51 and English 56, each with a grade of “C” or better, or equivalent.

An introductory course in human body structure and functions intended to meet the requirements of students preparing for health occupations such as radiology technician, physical therapy assistant, medical records technician, and medical laboratory technician. This course does not qualify as a general education course transferable to the UC system. Transfer Credit: CSU and/or private coll/univ.

205 General Microbiology
3 hours lecture, 6 hours lab, 5 units
*Prerequisite:* Biology 105 and 106 or Biology 107 and Chemistry 100 and 100L, each with a grade of "C" or better, or equivalent.

This introductory course covers fundamental aspects of microbiology including taxonomy, anatomy, growth and reproduction, metabolism, genetics and applications, host-parasite relations, immunology, and control of microorganisms. Emphasis in the laboratory is upon basic methods for culturing, staining, enumerating, differentiating and identifying microorganisms. The course meets requirements to enter paramedical or medical fields. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN BIOL 14)

210A Introduction to the Biological Sciences I
3 hours lecture, 3 hours lab, 4 units
*Grade Only*
*Prerequisite:* Chemistry 151 or Chemistry 152 and Chemistry 152L, each with a grade of "C" or better, or equivalent.

*Advisory:* English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skill Level W5 and R5. Concurrent enrollment in CHEM 200 and 200L.

This course covers biological chemistry, cell structure and function, cellular metabolism, classical and molecular genetics, and evolutionary biology. This is the first semester of a two-semester sequence designed for biological science and pre-professional majors. (FT) Transfer Credit: CSU and/or private coll/univ.

UC Transfer Credit: Biology (BIOL) 210A, B combined with 215 and 250: maximum credit, one series.

210B Introduction to the Biological Sciences II
3 hours lecture, 3 hours lab, 4 units
*Grade Only*
*Prerequisite:* Biology 210A with a grade of "C" or better, or equivalent.

This introductory course is a continuation of Biology 210A. This course emphasizes the developmental and physiological processes of the Five Kingdoms, the phylogenetic relationships of major evolutionary groups of organisms, behavior, and ecological principles.
including population and community ecology. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Biology (BIOL) 210A/B combined with 215 and 250: maximum credit, one series.

215 Introduction to Zoology
2 hours lecture, 6 hours lab, 4 units
Prerequisite: Biology 105 and 106 or 107, each with a grade of "C" or better, or equivalent.
The basic principles of animal biology, surveying the morphology and life processes, and evolution of the invertebrate and vertebrate animals. Laboratories include identification of organisms, dissection and anatomy of various types, embryological development, histology, and field trips. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Biology (BIOL) 210AB combined with 215 and 250: maximum credit, one series. (CAN BIOL 4)
(CAN BIOL SEQ A = BIOL 105 + 106 + 215 + 250)

230 Human Anatomy
2 hours lecture, 6 hours lab, 4 units
Prerequisite: Biology 105 and 106, or 107, each with a grade of "C" or better, or equivalent.
This course is a systems approach to the study of human body structure from the microscopic level of organization to the gross level. Structure is related to function from the study of histological slides, photomicrographs, anatomical models and charts, and mammalian (cat) dissection. This course is intended to meet the requirements of students in the fields of nursing, physical therapy, recreational therapy, occupational therapy, athletic training, chiropractic, psychology, physical education, and biology or those who wish to extend their knowledge of the human body beyond the scope of introductory biology. Transfer Credit: CSU and/or private coll/univ.; UC. (CAN BIOL 10)

232 Experience in Human Dissection
3 hours lab, 1 units
Prerequisite: Biology 230 with a grade of "C" or better, or equivalent.
Advisory: Preregistration counseling with instructor is highly recommended.
This course provides a supervised study and actual experience in human dissection. Mastery of dissection techniques and human anatomy at this level assists students pursuing careers in nursing, medicine, and other allied health professions. (FT) Transfer Credit: CSU and/or private coll/univ.

235 Human Physiology
3 hours lecture, 3 hours lab, 4 units
Prerequisite: Biology 105 and 106 or 107, each with a grade of "C" or better, or equivalent.
Advisory: Biology 230 and Chemistry 100 and 100L, each with a grade of "C" or better, or equivalent.
This is an introductory course which investigates the functions of the human body with emphasis on the nervous, endocrine, muscular, cardiovascular, respiratory, digestive, excretory and reproductive systems. This course is intended to meet requirements for students in the fields of nursing, paramedical sciences, psychology, biology and physical education. Transfer Credit: CSU and/or private coll/univ.; UC. (CAN BIOL 12)

250 Introduction to Botany
2 hours lecture, 6 hours lab, 4 units
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent.
An introduction to the fundamental principles of the structure, development, and physiology of the major plant groups, with emphasis on the flowering plants. Some field trips may be taken during laboratory periods. Some all-day Saturday field trips may be substituted for the regular laboratory periods. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Biology (BIOL) 210AB combined with 215 and 250: maximum credit, one series. (CAN BIOL 6)
(CAN BIOL SEQ A = BIOL 105 + 106 + 215 + 250)

285 Tropical Biology Field Experience
3 hours lab, 1 unit
Advisory: Completion of or concurrent enrollment in Biology 100 or Biology 105 or Biology 107 with a grade of "C" or better, or equivalent.
This field-oriented survey of plant and animal life in the tropics provides practical experience in scientific observation and emphasizes identification and ecology. This course is designed for students with little field experience in biology and an interest in tropical forest ecology. (FT) Transfer Credit: CSU and/or private coll/univ.

290 Independent Study
Hours by Arrangement; 1-3 units
Limitation on Enrollment: Must obtain an Add Code from instructor for registration.
This course may be taken four times with different content for a maximum of six units. A student may sign up for 1 to 3 units. For advanced students in biology who wish to continue with a special investigation. The course consists of individualized research problems, conferences with the instructor at prearranged intervals.
and a final report on the work completed. Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Individual Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

BLACK STUDIES (BLAS)

140A History of the U.S., Black Perspectives
3 hours, 3 units
Grade Only
Advisory: English 51 or 56 with a grade of "C" or better, or equivalent, or Assessment Skill Level W5 or R5.
This course is a survey of American history from the colonial period to 1877, with emphasis on the experience of African Americans and the contributions they have made to the political, social, economic, and cultural development of the country. This course is intended for transfer students planning to major in African American Studies, history, political science, or other social sciences. The complete one-year course, 140A and 140B, satisfies the graduation requirement in American Institutions. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Black Studies 140AB combined with Chicano Studies 141AB, History 109, 110, or 150, 151: maximum credit, one series.

140B History of the U.S., Black Perspectives
3 hours, 3 units
Grade Only
Advisory: English 51 or 56 with a grade of "C" or better, or equivalent, or Assessment Skill Level W5 or R5.
This course covers the history of the United States from Reconstruction to the present with emphasis on African American experience and contributions. It focuses on political, social, economic, cultural, and intellectual trends, the persistence of racism, and the struggle for full equality for all Americans. NOTE: The complete one-year course of Black Studies 140A and 140B satisfies the graduation requirements in American institutions and California state government. Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Black Studies 140AB combined with Chicano Studies 141AB, History 109, 110 or 150, 151: maximum credit, one series.

Class sections of the following courses utilize a variety of reading and/or research materials from a Black perspective. See page 230 for complete English course descriptions and page 273 for complete Speech Communications course descriptions. Refer to the class schedule under the particular subject listing for designated sections.

English
43 English Review
51 Basic Composition
101 Reading and Composition
105 Composition and Literature
205 Critical Thinking and Intermediate Composition

Speech Communications
103 Oral Communication

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

BUSINESS (BUSE)

90A Learning Skills
1.5 hours, 1.5 units
Grade Only
This is a course designed to teach the skills necessary to become a successful learner, both in college and in the years beyond college. Emphasis is placed on time management, organizational skills, and basic thinking, reading and writing techniques. Students will be able to successfully learn, retain and communicate information. This course is intended for the beginning or returning certificate student planning to major in vocational education. (FT) Associate Degree Credit

90B Work Success
1.5 hours, 1.5 units
Grade Only
This is a course designed to teach the skills necessary to become a successful employee. Emphasis is placed on understanding and developing the skills necessary to secure and keep a job. Students will be able to look for employment, prepare for an interview, and model the qualities of a successful employee. This course is
intended for the beginning or returning student planning to seek gainful employment. (FT) Associate Degree Credit.

**100 Introduction to Business**

3 hours, 3 units  
Grade Only  

*Advisory:* English 43 and English 42, or Business 92, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W4 and R4.  
An elementary course for both business and non-business majors. Provides a broad understanding of the business community, its functions, terminology, occupational choices in the various fields of business and the place of business in the American economy as a whole. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

**101 Business Mathematics**

3 hours lecture, 3 units  
Grade Only  

This course provides students with a comprehensive study of business mathematics and reviews basic mathematics such as decimals, fractions, and percentages. It also covers the topics of bank services, payroll, mathematics of buying and selling, interest and loans, taxes, insurance, depreciation, and other business computations. This course is intended for students interested in pursuing careers in business. Transfer Credit: CSU and/or private coll/univ.

**119 Business Communications**

3 hours, 3 units  
Grade Only  

*Advisory:* English 51 and English 56, or Business 92, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5.  
Instruction in the principles of effective business communications. Development of the ability to analyze, organize and compose various types of written and oral business communications. Emphasis is on the writing of clear, concise, and persuasive letters, memos, and reports. Transfer Credit: CSU and/or private coll/univ.

**140 Business Law and the Legal Environment**

3 hours, 3 units  
Grade Only  

This course examines business legal systems, social and ethical influences, judicial and administrative systems, contracts, torts, bankruptcy, agency, business organizations, security regulations, regulation of property, and protection of intellectual property interests. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Business (BUSE) 140 and 141 combined: maximum credit, one course. (CAN BUS 8)

**150 Human Relations in Business**

3 hours, 3 units  
Grade Only  

*Advisory:* English 51 and English 56, or Business 92, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5.  
Designed to assist employees and employers in understanding human behavior in social institutions, business and industry. Areas for discussion include: leadership, communication, status, decision-making, motivation, personnel problems. Case problem method of instruction used. (FT) Transfer Credit: CSU and/or private coll/univ.

**201 Business Organization and Management**

3 hours, 3 units  
Grade Only  

*Advisory:* English 51 and English 56, or Business 92, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5.  
Essentials of business organization and management; internal organization; operation; finance; marketing; and forms of ownership. Introduces students to techniques of decision-making with emphasis on recent advances in areas directly related to management. (FT) Transfer Credit: CSU and/or private coll/univ.

**270 Work Experience**

Hours by Arrangement; 1-4 units  
Grade Only  

*Limitation on Enrollment:* To receive credit a student must complete a minimum of seven units during the semester, including work experience.  
A program of on-the-job learning experiences for students employed in a job related to their major. The combined maximum credit for all work experience courses from all disciplines may not exceed 16 units. Transfer Credit: CSU and/or private coll/univ.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.
100 Fundamentals of Chemistry  
3 hours, 3 units

Corequisite: Chemistry 100L.

Advisory: Mathematics 95 with a grade of “C” or better, or equivalent, or Assessment Skill Level M40; and English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5.

Limitation on Enrollment: This course is not open to students with credit for or concurrent enrollment in Chemistry 200.

A beginning course to acquaint the student with the language and tools of chemistry. Includes elementary principles of inorganic and physical chemistry. Valuable as a foundation course for further work in chemistry. Students planning to transfer this course to a four-year institution must also complete Chemistry 100L. Concurrent enrollment in Chemistry 100L is required except with approval of the department. Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Chemistry (CHEM) 100, 100L and 151 combined: maximum credit, four units. (CAN CHEM 6 when taken with Chemistry 100L)

100L Fundamentals of Chemistry Laboratory  
3 hours lab, 1 unit

Corequisite: Chemistry 100.

Advisory: Mathematics 95 with a grade of “C” or better, or equivalent, or Assessment Skill Level M40; and English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5.

A laboratory course designed to illustrate the principles presented in Chemistry 100. Acquaints the student with common laboratory equipment and data collection. Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Chemistry (CHEM) 100, 100L and 151 combined: maximum credit, four units. No credit for CHEM 100, 100L or 151 if taken after 200. (CAN CHEM 6 when taken with Chemistry 100)

130 Introduction to Organic and Biological Chemistry  
3 hours, 3 units

Prerequisite: Chemistry 100 and 100L, each with a grade of “C” or better, or equivalent.

Corequisite: Chemistry 130L.

A continuation of Chemistry 100 with emphasis on organic chemistry. Pre-nursing and home economics students intending to go into the baccalaureate program must complete Chemistry 100, 100L, 130 and 130L. Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Chemistry (CHEM) 130, 130L and 231, 231L combined: maximum credit, one course (with Lab). (CAN CHEM 8 when taken with Chemistry 130L)

130L Introduction to Organic and Biological Chemistry Laboratory  
3 hours lab, 1 unit

Prerequisite: Chemistry 100 and Chemistry 100L, each with a grade of “C” or better, or equivalent.

Corequisite: Chemistry 130.

This is a one-semester laboratory course that illustrates the principles presented in Chemistry 130. Students are introduced to common organic chemistry laboratory equipment, fundamental organic and biochemical reactions, tests and techniques. Techniques covered include chromatography, recrystallization, and distillation. Tests and reactions of common organic functional groups, carbohydrates, fats, and amino acids are covered. Synthesis of a medicinal compound such as aspirin or a nitrogen-based analgesic is also covered. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Course List: Chemistry (CHEM) 130, 130L and 231, 231L combined: maximum credit, one course (with lab). (CAN CHEM 8 when taken with Chemistry 130) (CAN CHEM SEQ B = CHEM 100+100L+130+130L)

151 Introduction to General Chemistry  
3 hours lecture, 3 hours lab, 4 units

Advisory: Mathematics 95 with a grade of “C” or better, or equivalent, or Assessment Skill Level M40; and English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5.

Limitation on Enrollment: This course is not open to students with credit for Chemistry 152 & 152L.

A one-semester preparatory course in chemistry consisting of an intensive study of the principles of inorganic and physical chemistry that are needed before taking Chemistry 200. Intended for those students majoring in one of the natural sciences, engineering or related curricula, who do not meet the entrance requirements of Chemistry 200. Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Chemistry (CHEM) 151 and 100, 100L combined: maximum credit, four units

200 General Chemistry I Lecture  
3 hours, 3 units

Prerequisite: Chemistry 151 or 152 and 152L (formerly Chemistry 151), each with a grade of “C” or better, or equivalent; and Mathematics 96 with a grade of “C” or better, or equivalent, or Assessment Skill Level M50.
Corequisite: Chemistry 200L.
This is the first course in a two-course sequence in general chemistry and is intended for students majoring in science or satisfying prerequisites for professional schools. The course covers the principles and laws of inorganic chemistry with emphasis on quantitative mathematical problem solving. Topics include chemical equations, stoichiometry, atomic theory and its relationship to periodicity of the elements, bonding theories, molecular geometry, solution chemistry, liquids, solids, and the gas laws. Transfer Credit: CSU and/or private coll/univ.; UC. (CAN CHEM 2 when taken with Chemistry 200L) (CAN CHEM SEQ A = CHEM 200+200L+201+201L)

200L General Chemistry I Laboratory
6 hours lab, 2 units

Corequisite: Chemistry 200.
This is the first course in a two-course sequence in general chemistry. It is intended for students majoring in science or satisfying prerequisites for professional schools. The course illustrates the fundamental principles and laws of chemical behavior and the properties of matter in terms of laboratory experiments, with emphasis on quantitative, mathematical problem solving. Topics include techniques of data analysis, chemical formulae and nomenclature, chemical equations and stoichiometry, atomic theory and its relationship to the periodic properties of the elements, theories of chemical bonding, molecular geometry, states of matter, solution chemistry, and gaseous behavior. Transfer Credit: CSU and/or private coll/univ.; UC. (CAN CHEM 2 when taken with Chemistry 200) (CAN CHEM SEQ A = CHEM 200+200L+201+201L)

201 General Chemistry II Lecture
3 hours, 3 units

Prerequisite: Chemistry 200 and 200L, each with a grade of "C" or better, or equivalent.
Corequisite: Chemistry 201.
This is the first course in a two-course sequence in general chemistry and is intended for students majoring in science or satisfying prerequisites for professional schools. The course covers the principles and laws of physical and inorganic chemistry with emphasis on quantitative, mathematical problem solving. Topics include chemical kinetics, chemical equilibrium, acid-base theory, thermochemistry, thermodynamics, electrochemistry, coordination chemistry, and nuclear chemistry. The course also includes an introduction to organic- and biochemistry. Transfer Credit: CSU and/or private coll/univ.; UC. (CAN CHEM 4 when taken with Chemistry 201L) (CAN CHEM SEQ A = CHEM 200+200L+201+201L)

2011 General Chemistry II Laboratory
6 hours lab, 2 units

Corequisite: Chemistry 201.
This is the second semester laboratory course in a two-course sequence in general chemistry and is intended for students majoring in science or satisfying prerequisites for professional schools. The course illustrates the fundamental principles of physical and inorganic with some organic chemistry in terms of laboratory experiments. Topics include techniques of data analysis, chemical kinetics, chemical equilibrium, acid, base, and salt, thermochemistry, electrochemistry, coordination chemistry and organic chemistry. Wherever appropriate and whenever possible, computer skills are introduced and applied to data analysis, laboratory simulations, and computer interfacing with laboratory equipment. Transfer Credit: CSU and/or private coll/univ.; UC. (CAN CHEM 4 when taken with Chemistry 201) (CAN CHEM SEQ A = CHEM 200+200L+201+201L)

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

100 Introduction to Child Development
3 hours lecture, 3 units

Grade Only
Advisory: Completion of English 43 and English 42 with a grade of “C” or better, or equivalent, or Assessment Skill Levels W4 and R4.
This course serves as an overview of the field of child development. Emphasis is placed on the analysis of historical and contemporary philosophies and models of early childhood education, exploration of the variety and scope of programs in the community, examination of career options and career preparation in the field of child development, and current issues and trends facing early childhood education. This course partially fulfills the certification requirements for child development Infant/Toddler program requirements. (FT) Associate Degree Credit.
101 Human Growth and Development

3 hours lecture, 3 units
Grade Only

Advisory: English 51 and English 56 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.

This course is a study of the interrelationship between the physical, cognitive and psychosocial growth and development of the individual from conception through adolescence. Emphasis is placed on positive relationships with family members, peers and other significant individuals. Theories and philosophies of human development and cross-cultural patterns are explored. Observations of children and educational programs are required. This course is a core requirement for the State of California Child Development Permit and the State of California Community Care Licensing, Title XXII. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN FCS 14)

111 Curriculum: Music/Motor Skills

3 hours lecture, 3 units
Grade Only

Advisory: English 43 and English 42, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W4 and R4.

This course is a study of the development and significance of music and perceptual motor activities in child development from infancy through kindergarten. Emphasis is placed on basic teaching techniques and selecting suitable materials and equipment for various age and maturity levels among preschool children. This course is designed for students who have an interest in working with children ages 0 - 5 in settings such as preschools, daycares etc. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

121 Curriculum: Art

3 hours lecture, 3 units
Grade Only

Advisory: English 51 and English 56 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.

This course is an introductory study of the function of creativity and the affective domain in early childhood educational programs. Emphasis is placed on the development of art curriculum activities, basic teaching skills, guidance techniques, equipment and materials. Students select appropriate activities for a variety of age and maturity levels based on child development theories and concepts. (FT) Transfer Credit: CSU and/or private coll/univ.

131 Curriculum: Language/Science

3 hours lecture, 3 units
Grade Only

Advisory: English 43 and English 42 each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W4 and R4.

This course is an introductory study of the function of language, math and science learning in early childhood educational programs. Emphasis is placed on the development of language and science curriculum activities, basic teaching skills, guidance techniques, equipment and materials. Students select appropriate activities for a variety of age groups and maturity levels based on child development theories and concepts. This course may be used for licensing, child development permits, transfer and general interest for working with children. (FT) Transfer Credit: CSU and/or private coll/univ.

141 The Child, Family and Community

3 hours lecture, 3 units
Grade Only

Advisory: English 51 and English 56 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.

This course is a study of the dynamics of human development and socialization in a culturally pluralistic society. Emphasis is placed on the influences of contemporary family living and cultural patterns on the child, school-family relationships, and community resources and services that support and strengthen families. This course is a core requirement for California Child Development teacher/director center permits as well as for the State of California Department of Community Care Title XXII licensing child care centers requirements. (FT) Transfer Credit: CSU and/or private coll/univ.

151 Program Planning

3 hours, 3 units
Grade Only

Prerequisite: Child Development 101 and either 111 or 121 or 131, each with a grade of "C" or better, or equivalent.

Corequisite: Child Development 270 or 275.

Planning the environment to promote optimal development with emphasis on curriculum planning, guidance, safety, record keeping, observation techniques, resource units, and the daily plan. (FT) Transfer Credit: CSU and/or private coll/univ.
160 Observing and Understanding Children
1 hour lecture, 3 hours lab, 2 units

Advisory: English 43 and English 42, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W4 and R4.

Limitation on Enrollment: This course is not open to students with credit for Child Development 160A.

This course focuses on behavioral patterns and growth processes of young children through observations and supervised participation in the campus Child Development Center. Emphasis is placed on the principles of observing, interpreting and guiding children's behavior. The course includes the study of children's developmental, safety and nutritional needs. The course fulfills the specialization requirements for the State of California Master Teacher Permit when taken with Child Development 161 and 162 or Child Development 160 and 162. (FT) Transfer Credit: CSU and/or private coll/univ.

165 Children with Special Needs
3 hours, 3 units

Advisory: English 43 and English 42, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W4 and R4.

An educational and parenting approach to working with children with exceptionalities. Methods of integrating the exceptional child into a mainstreamed educational program will be investigated. Differences and needs of each area of exceptionality will be investigated as well as the roles of different professionals in the educational process. The course is designed primarily for parents, teachers, nurses, social workers, and paraprofessionals employed in schools, day care centers, and child development programs. (FT) Transfer Credit: CSU and/or private coll/univ.

166 Special Needs Curriculum
3 hours lecture, 3 units

Advisory: English 43 and English 42, each with a grade of “C” or better, or equivalent or Assessment Skill Levels W4 and R4.

This course provides an in-depth look at curriculum for children with special needs. Full inclusion of children with special needs into school and community settings is explored. Application of specific strategies for integrating children into typical settings is addressed as well as use of adaptive equipment. This course is designed primarily for parents, teachers, nurses, social workers, and paraprofessionals employed in schools, day care centers, and child development programs. The course partially fulfills requirements for the Child Development Certificate and Degree programs and partially meets the specialization requirements for the Master Teacher Permit if taken with Child Development 165. (FT) Transfer Credit: CSU and/or private coll/univ.
Examines the physical, social, emotional, and intellectual growth of the child including the atypical infant. Discusses the selection and maintenance of toys and play equipment for indoor and outdoor environments. Appropriate observations and visitations to the community will be required. (FT) Transfer Credit: CSU and/or private coll/univ.

176 Principles of Infant/Toddler Caregiving
3 hours lecture, 3 units
Grade Only
Advisory: English 43 and English 42, each with a grade of “C” or better, or equivalent or Assessment Skill Levels W4 and R4.
This course explores principles and curriculum of an infant/toddler program that includes all aspects of infant and toddler development. Students will learn care strategies in a variety of caregiving situations. Content includes licensing and regulations, developmental needs, health, nutrition, and safety of the very young. The student learns to plan appropriate indoor and outdoor environments. Staff interaction, parent participation, and program development are included. This course fulfills major and master permit specializations when taken along with Child Development 160 and 161. (FT) Transfer Credit: CSU and/or private coll/univ.

180 Nutrition, Health and Safety for Children
3 hours, 3 units
Grade Only
Advisory: English 43 and English 42, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W4 and R4.
This course surveys principles and application of nutrition, health and safety needs and practices for children of diverse backgrounds. It examines planning environments, programs and related activities. Completion of a First Aid and CRP class will be integrated into this course. (FT) Transfer Credit: CSU and/or private coll/univ.

188 Child Abuse
3 hours, 3 units
Grade Only
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
This course examines the causes and effects of child abuse and neglect. It is designed primarily for parents, teachers, nurses, and other childcare professionals to learn strategies for understanding and responding to the various forms of stress and violence that affect many children today. This course emphasizes the skills needed for conflict resolution and explores the environmental set-up and curriculum that promotes peaceful, cooperative and nonviolent play and interactions. Information about the history, current legislation, reporting responsibilities, and identification of abuse is also given. (FT) Associate Degree Credit.

202 Administration of Early Childhood Programs
3 hours lecture, 3 units
Grade Only
Prerequisite: Child Development 101 and 141, each with a grade of "C" or better, or equivalent.
Advisory: Child Development 111 and 121 or Child Development 131 and English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
This course provides an overview of program administration including theoretical perspectives on early childhood education, licensing regulations, funding sources, budgetary considerations, personnel management, curriculum development, and teacher selection. The course meets State of California Title 22 licensing regulations for site supervisors. It also partially fulfills State of California matrix requirements for Program Director and Site Supervisor Permits. (FT) Transfer Credit: CSU and/or private coll/univ.

210 Supervision of Early Childhood Programs
3 hours, 3 units
Grade Only
Prerequisite: Child Development 141 and 151, each with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with credit for Child Development 201 or 201B.
An examination of early childhood supervisory techniques with emphasis on educational philosophy, professional growth, in-service staff training, program and staff evaluation, models of parent education and involvement and supportive services. (FT) Transfer Credit: CSU and/or private coll/univ.

215 Adult Supervision and Mentoring in Early Childhood Settings
3 hours, 3 units
Grade Only
Prerequisite: Child Development 151 with a grade of "C" or better, or equivalent.
This course emphasizes the methods and principles of supervising adults in early childhood settings. Students study effective models for guidance and evaluation of adults, positive communication skills, and the role of
270 Work Experience

**Hours by Arrangement, 1-4 units**

**Grade Only**

*Limitation on Enrollment:* To receive credit a student must complete a minimum of seven units during the semester, including work experience.

Program of on-the-job learning experiences for students employed in a job related to their major. The combined maximum credit for all work experience courses from all disciplines may not exceed 16 units. Transfer Credit: CSU and/or private coll/univ.

275 Supervised Field Study

**3-9 hours lab, 1-3 units**

**Grade Only**

*Corequisite:* Child Development 151.

A directed field of study designed to provide the student with an opportunity to apply classroom information in a practical setting with supervision from faculty as well as field-site supervisor. (FT) Transfer Credit: CSU and/or private coll/univ.

291 Child Development Center Practicum

**Hours by Arrangement; 3-12 hours lab, 1-4 units**

**Grade Only**

*Advisory:* English 43 and English 42, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W4 and R4.

Directed field experience designed to provide practical experience to supplement child development courses and related curriculum. (FT) Transfer Credit: CSU and/or private coll/univ.

291A Child Development Center Practicum

**3 hours lab, 1 unit**

**Grade Only**

*Advisory:* English 43 and English 42, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W4 and R4.

This course provides directed laboratory experience in the campus Child Development Center. It is designed for students who plan careers in early childhood and family support programs and for parents who seek practical experience in guiding and teaching children. Students become familiar with the operating policies and procedures of a preschool program and observe and access the development of children. This course may be used toward the experience component for the State of California Child Development Permit. The combined maximum credit for Child Development 291, 291A, 291B, 291C, and 291D is four units. (FT) Transfer Credit: CSU and/or private coll/univ.

291B Child Development Center Practicum

**3 hours lab, 1 unit**

**Grade Only**

*Advisory:* English 43 and English 42, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W4 and R4.

This course provides directed laboratory experience in the campus Child Development Center. It is designed for students who plan careers in early childhood education and family support programs and for parents who seek practical experience in guiding and teaching children. Students examine appropriate safety, health and nutritional practices in a preschool setting with an emphasis on implementation with young children. This course may be used toward the experience component for the State of California Child Development Permit and toward the Health and Safety training requirements for Title 22. The combined maximum credit for Child Development 291, 291A, 291B, 291C, and 291D is four units. (FT) Transfer Credit: CSU and/or private coll/univ.

291C Child Development Center Practicum

**3 hours lab, 1 unit**

**Grade Only**

*Advisory:* English 43 and English 42, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W4 and R4.

This course provides directed laboratory experience in the campus Child Development Center. It is designed for students who plan careers in early childhood and family support programs and for parents who seek practical experience in guiding and teaching children. Students explore teaching practices that enhance children’s learning in the classroom and assist in the planning and implementation of developmentally appropriate activities. This course may be used toward the experience component for the State of California Child Development Permit. The combined maximum credit for Child Development 291, 291A, 291B, 291C, and 291D is four units. (FT) Transfer Credit: CSU and/or private coll/univ.
291D Child Development Center Practicum
3 hours lab, 1 unit
Grade Only
Advisory: English 43 and English 42, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W4 and R4.
This course provides directed laboratory experience in the campus Child Development Center. It is designed for students who plan careers in early childhood and family support programs and for parents who seek practical experience in guiding and teaching children. Students examine the role of routines and transitional activities in the organization and structure of an early child development setting. The class emphasizes positive guidance and discipline for young children. This course may be used toward the field experience component for the State of California Child Development Permit. The combined maximum credit for Child Development 291, 291A, 291B, 291C, and 291D is four units. (FT) Transfer Credit: CSU and/or private coll/univ.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

186 Visual Basic Programming
3 hours lecture, 3 hours lab, 4 units
Grade Only
Advisory: English 51 with a grade of “C” or better, or equivalent, or Assessment Skill Level W5.
This course is an introduction to programming using Visual Basic. The course covers the fundamentals of event oriented programming in a Windows environment. Students learn to use and program a mouse, windows, forms, menus, dialog boxes, icons, buttons, text fields, files, graphics, and other components of a Windows environment in Visual Basic. (FT) Transfer Credit: CSU and/or private coll/univ.

190 Java Programming
3 hours lecture, 3 hours lab, 4 units
Grade Only
Advisory: English 51 with a grade of "C" or better, or equivalent, or Assessment Skill Level W5.
This course is an introduction to programming using Java. The course covers the fundamentals of object oriented programming utilizing the Java programming language for general purpose business programs and interactive World Wide Web based Internet programs. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

192 C/C++ Programming
3 hours lecture, 3 hours lab, 4 units
Grade Only
Advisory: English 51 and Computer and Information Sciences 186, each with a grade of "C" or better, or equivalent, or Assessment Skill Level W5.
This course presents basic programming concepts using the C++ programming language. The organization of standard I/O classes is emphasized. Structured and object oriented programming techniques are presented and used to design and implement a variety of programming problems. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN CSCI 16)

205 Object Oriented Programming Using C++
3 hours lecture, 3 hours lab, 4 units
Grade Only
This course introduces students to object oriented programming (OOP) using the C++ programming language and includes the essential concepts related to OOP including use of classes and objects, inheritance, templates, polymorphism, pointers and references and I/O streams. (FT) Transfer Credit: CSU and/or private coll/univ.
210 Systems Analysis and Design
3 hours, 3 units
Grade Only
Advisory: English 101 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W6 and R6. This course is an introductory, experiential study of the phases of the object-oriented software development life cycle (OOSDLC) including stakeholder and requirements analysis, use cases development, software architecture; project management, user interface considerations, iterative and prototyping methodology, component construction, quality assurance, and configuration management. This course is intended for students seeking advanced knowledge and applications in Computer and Information Sciences. (FT) Transfer Credit: CSU and/or private coll/univ.

270 Work Experience
Hours by Arrangement: 1-4 units
Grade Only
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, including Work Experience. A program of on-the-job learning experiences for students employed in a job related to their major. The combined maximum credit for all work experience courses from all disciplines may not exceed 16 units. Transfer Credit: CSU and/or private coll/univ.

290 Independent Study
Hours by Arrangement: 1-3 units
Grade Only
Limitation on Enrollment: Must obtain an Add Code from instructor for registration. Typically for advanced students in Computer and Information Sciences who wish to pursue special problems and projects related to the area. The student will meet with the instructor at specific intervals and will be expected to accomplish primary research, problem analysis and report preparation relating to an approved project or course of study. This course may be taken four times with different content for a maximum of six units. Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172.

Please refer to the class schedule and/or see the dean or department chair for availability.

**COMPUTER BUSINESS TECHNOLOGY (CBTE)**

Formerly Office Information Systems (OFCE)

Note: CBTE course numbers differ from the OFCE course numbers.

101 Keyboarding for Computers
0.75 hour lecture, 0.75 hour lab, 1 unit
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
Limitation on Enrollment: This course is not open to students with credit for OFCE 101, 102, or 164. This course is designed for all individuals needing basic keyboarding skills. Keyboarding for Computers teaches students to key by touch using a computer and word processing software. No previous computer or typing experience is required. This course, or sections of this course, may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

102 Keyboarding
1.5 hours lecture, 1.5 hours lab, 2 units
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
Limitation on Enrollment: This course is not open to students with credit for OFCE 100 or 265 (Beginning Computer Keyboarding) or CBTE 101 or 103.

This course teaches touch control of the keyboard and proper typing techniques. Students build speed and accuracy through specialized drills and practice on straight copy and numbers. Students apply keyboarding skills to the formatting of letters, reports, tables, and memos using word processing software. This course, or sections of this course, may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

103 Beginning Computer Keyboarding
2 hours lecture, 3 hours lab, 3 units
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
Limitation on Enrollment: This course is not open to students with credit for OFCE 100 or 265 (Beginning Computer Keyboarding).

This course is designed for all individuals needing basic keyboarding skills. Keyboarding for Computers teaches students to key by touch using a computer and word processing software. No previous computer or typing experience is required. This course, or sections of this course, may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.
This course is designed for all students whose keyboarding skill is for vocational and/or personal use. Beginning Computer Keyboarding teaches basic keyboarding skills by touch using a computer and word processing software. Students receive basic formatting instructions for letters, tables, and reports. This course, or sections of this course, may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

111 Introduction to Windows 95

0.75 hours lecture, 0.75 hours lab, 1 unit
Grade Only
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and CBTE 103 with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with credit for OFCE 152B.
This basic course presents an overview of the features of the Microsoft Windows 95 operating system and the components of the Windows 95 desktop. In this hands-on course, students learn to start programs; execute commands; open data files; manage files, disks, and folders; and customize the desktop. This course, or sections of this course, may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

120 Beginning Microsoft Word

1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and CBTE 103 with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with credit for CBTE 120.
This course is an introduction to text editing features in Microsoft Word including insert, delete, find and replace, move and copy, character formatting, and spell check. This course, or sections of this course, may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

120A Introduction I to Microsoft Word

0.75 hour lecture, 0.75 hours lab, 1 unit
Grade Only
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and CBTE 103 with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with credit for CBTE 120.
This course is an introduction to text editing features in Microsoft Word including insert, delete, find and replace, move and copy, character formatting, and spell check. This course, or sections of this course, may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

120B Introduction II to Microsoft Word

0.75 hour lecture, 0.75 hours lab, 1 unit
Grade Only
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and CBTE 103 and 120A, each with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with credit for CBTE 120.
This course is a continuation of CBTE 120A. Students continue using Microsoft Word text editing features including paragraph and document formatting, creating tables, and basic mail merges. This course, or sections of this course, may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

122 Intermediate Microsoft Word

2 hours lecture, 3 hours lab, 3 units
Grade Only
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and CBTE 103 and 120, each with a grade of "C" or better, or equivalent.
This course is a continued application of Microsoft Word text editing features including creation of envelopes and labels, mail merge, sorting, styles, templates, wizards, macros, document notations, tables of contents and indexes, online forms, columns, drawing tools, and introduction to creating Web pages. This course, or sections of this course, may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

126 Document Processing

2 hours lecture, 3 hours lab, 3 units
Grade Only
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and CBTE 103 with a grade of "C" or better, or equivalent.
This course is designed to give students hands-on experience creating a variety of computer-based documents. This course covers the use of computer software to create business, technical, medical and/or
The course teaches the fundamentals of Microsoft Excel. Students create and format worksheets and charts and use Excel's wizards and productivity features to enter functions and analyze data. This course, or sections of this course, may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

**140A Introduction to Microsoft Excel**  
0.75 hour lecture, 0.75 hour lab, 1 unit  
Grade Only  
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and CBTE 103 and 111, each with a grade of "C" or better, or equivalent.  
This course is designed for students interested in learning basic Excel skills. Students receive hands-on practice in how to plan, define, create, and modify worksheets. This course, or sections of this course, may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

**151 Introduction to Microsoft Access**  
0.75 hour lecture, 0.75 hour lab, 1 unit  
Grade Only  
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and CBTE 103 and 111, each with a grade of "C" or better, or equivalent.  
This course covers basic Access skills. Students receive hands-on practice using the Windows environment, data organization and management, the Internet, the World Wide Web, e-mail, and word processing software. This course or sections of this course may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

**160A Introduction to Online Learning**  
0.5 hour, 0.5 unit  
Grade Only  
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and CBTE 112 and 101, each with a grade of "C" or better, or equivalent.  
This course is an introduction to developing the skills necessary to succeed in an online or web-based course. Students will learn and apply the basics of the Windows environment, data organization and management, the Internet, the World Wide Web, e-mail, and word processing software. This course or sections of this course may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

**161 Learning The Internet**  
0.75 hour lecture, 0.75 hours lab, 1 unit  
Grade Only  
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and CBTE 103 and 111, each with a grade of "C" or better, or equivalent.  
This course is designed for students who are interested in an introduction to the Internet. Students receive hands-on practice using Netscape to navigate the World Wide Web and link to Internet resources. Topics include creating and sending: e-mail, FTP, and file downloading, locating newsgroups and other discussion tools, conducting business on the Internet, and creating Web pages using HTML. This course, or sections of this course, may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

**162 Web Page Creation**  
1.5 lecture hours, 1.5 lab hours, 2 units  
Grade Only  
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and CBTE 111 and 161, each with a grade of "C" or better, or equivalent.  
This course provides a hands-on approach to planning, designing, and creating Web pages for an intranet or World Wide Web site. Students learn to use HTML, wizards and templates to create Web pages with hypertext links and video, graphics, and audio enhancements. This course, or sections of this course, may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.
163 Introduction to Microsoft FrontPage
1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and CBTE 112 and 101, each with a grade of "C" or better, or equivalent.
This is an introduction to creating a web page using Microsoft FrontPage. Students will learn to design, create, manage, and publish web sites on the Internet for personal or business use. This course or sections of this course may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

164 Introduction to Microsoft Outlook
0.75 hours lecture, 0.75 hours lab
Grade Only
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and CBTE 112 and 101, each with a grade of "C" or better, or equivalent.
This course is an introduction to the features of Microsoft Outlook. Students will learn how to message, schedule appointments, organize and manage tasks and contacts lists and customize Outlook. This course or sections of this course may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

170 Desktop Publishing
1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and CBTE 103 and 111, each with a grade of "C" or better, or equivalent.
This course is designed for office support staff, administrative assistants, small business owners, and others who require a basic knowledge of desktop publishing. Students in this hands-on course learn the features of desktop publishing software by designing and creating professional quality publications for business and home. This course, or sections of this course, may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

173 Introduction to E-Commerce
3 hours lecture, 3 units
Grade Only
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and CBTE 101 or 102, and 112 and 162, each with a grade of "C" or better, or equivalent.
This is an introduction to current and emerging e-commerce technologies. Topics include Internet technology for business advantage; managing e-commerce funds transfer; reinventing the future of business through e-commerce; business opportunities in e-commerce; e-commerce website design; social, political, and ethical issues associated with e-commerce; and business plans for technology ventures. Students are involved in creating an e-commerce marketing plan as well as a web site based on that plan. This course is intended for students seeking knowledge and experience in the realities of and potential for e-commerce. This course may be offered via distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

180 Microsoft Office
2.00 hours lecture, 3.00 hours lab, 3 units
Grade Only
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and Computer Business Technology 103, 112 & 161, each with a grade of "C" or better, or equivalent.
This course is designed for students interested in learning a business software suite. This course covers the Microsoft Office Professional suite, which is an integrated collection of software applications (word processing, spreadsheet, database, and presentations) that share data and work in a similar and consistent manner. This course will also provide instruction on how to seamlessly integrate data within and between the programs in an efficient manner. (FT) Transfer Credit: CSU and/or private coll/univ.

198A Project Lab I
1.5 hours lab, 0.5 unit
Credit/No Credit Only
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
Students in this course design and complete hands-on individualized projects applicable to CBTE courses to upgrade their software skills. (FT) Transfer Credit: CSU and/or private coll/univ.

198B Project Lab II
1.5 hours lab, 0.5 unit
Credit/No Credit Only
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
This course is an optional continuation of CBTE 198A. Students in this course design and complete hands-on
individualized projects applicable to CBTE courses to upgrade their software skills. (FT) Transfer Credit: CSU and/or private coll/univ.

200 Office Telecommunications
1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only

Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
Limitation on Enrollment: This course is not open to students with credit for OFCE 142.
This course is designed to provide students with a fundamental working knowledge of voice, data, and video telecommunications that can be applied in their business and personal lives. The course introduces telecommunications networks, transmitting, receiving, and satellite technologies. Topics covered in this course include basic communication theory, fundamentals of telephone systems, components of data communications systems, and basic Web page development using and HTML editor. This course or sections of this course may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

210 Computers in Business
3 hours, 3 units
Grade Only

Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
Limitation on Enrollment: This course is not open to students with credit for OFCE 192.
This course is designed to prepare students for a computer related career. Computers in Business is an introductory course which covers the latest developments in computer technology, office automation, electronic communication, and the World Wide Web. This course or sections of this course may be offered through distance education. (FT) Transfer Credit: CSU and/or private coll/univ.

270 Work Experience
Hours by Arrangement, 1-4 units
Grade Only

Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, including work experience.
Program of on-the-job learning experiences for students employed in a job related to their major. The combined maximum credit for all work experience courses from all disciplines may not exceed 16 units. Transfer Credit: CSU and/or private coll/univ.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.
** DIESEL TECHNOLOGY (DIES) **

90 Forklift Operation

0.5 hours lecture, 1.5 hours lab, 1 unit

*Advisory:* English 51 and English 56, each with a grade of "C" or better, or equivalent.
This course provides the classroom theory and principles and operational instruction in general forklift safety, use and operation of forklifts, handling loads, preventive maintenance and upkeep, identification of operational problems, and preparation and testing for OSHA Forklift Certification. (FT) Associate Degree Credit.

100 Introduction to Diesel Technology

2 hours lecture, 2 units

*Grade Only*

This beginning class introduces students to the field of diesel-powered trucks and equipment maintenance and service. Students learn about the common types of diesel powered trucks and equipment, shop safety, industrial fasteners, hydraulic fittings, technician tool requirements, service shop organization and procedures, and shop measuring tools. Students also receive an overview of the Miramar College Diesel Technology program. (FT) Transfer Credit: CSU and/or private coll/univ.

105 Measuring Tools and Applied Mathematics

1 hours lecture, 3 hours lab, 2 units

*Grade Only*

*Corequisite:* Completion of or concurrent enrollment in Diesel Technology 100 with a grade of "C" or better, or equivalent.

*Limitation on Enrollment:* This course is not open to students with previous credit for Diesel Technology 110.

Students learn how to care for and use precision measuring tools and common shop measuring tools. They also learn industry-standard mathematical concepts and applications as related to the diesel maintenance industry. (FT) Transfer Credit: CSU and/or private coll/univ.

121 Diesel Engines A

4 hours lecture, 9 hours lab, 7 units

*Grade Only*

*Corequisite:* Completion of or concurrent enrollment in Diesel Technology 100 with a grade of "C" or better, or equivalent.

*Limitation on Enrollment:* This course is not open to students with previous credit for Diesel Technology 110.

Students learn the fundamental skills necessary to perform major overhaul operations on Detroit Diesel engines. Subjects include theory of operation, construction and application, how to use diesel repair shop equipment and tools, and dynamometer performance testing. (FT) Transfer Credit: CSU and/or private coll/univ.

122 Diesel Engines B

4 hours lecture, 9 hours lab, 7 units

*Grade Only*

*Corequisite:* Completion of or concurrent enrollment in Diesel Technology 100 with a grade of "C" or better, or equivalent.

*Limitation on Enrollment:* This course is not open to students with previous credit for Diesel Technology 120.

Students learn the fundamental skills necessary to perform major overhaul operations on Caterpillar diesel engines. Subjects include theory of operation, construction and application, how to use diesel repair shop equipment and tools, and dynamometer performance testing. (FT) Transfer Credit: CSU and/or private coll/univ.

123 Diesel Engines C

1 hours lecture, 3 hours lab, 2 units

*Grade Only*

*Corequisite:* Completion of or concurrent enrollment in Diesel Technology 100 with a grade of "C" or better, or equivalent.

*Limitation on Enrollment:* This course is not open to students with previous credit for Diesel Technology 127.

Students learn the fundamental skills necessary to evaluate and repair engine components and accessories including cylinder blocks. Students also learn how to remove and install engines. (FT) Transfer Credit: CSU and/or private coll/univ.

124 Diesel Engines D

4 hours lecture, 9 hours lab, 7 units

*Grade Only*

*Corequisite:* Completion of or concurrent enrollment in Diesel Technology 100 with a grade of "C" or better, or equivalent.

Students learn the fundamental skills necessary to perform major overhaul operations on Cummins diesel engines. Subjects include theory of operation, construction and application, how to use diesel repair shop equipment and tools, and dynamometer performance testing. (FT) Transfer Credit: CSU and/or private coll/univ.
### DIESEL TECHNOLOGY (DIES)

#### 125 Diesel Engines I
- **3 hours lecture, 3 hours lab, 4 units**
- **Grade Only**
- **Corequisite:** Completion of or concurrent enrollment in Diesel Technology 100 with a grade of “C” or better or equivalent.
- **Limitation on Enrollment:** This course is not open to students with credit for Diesel Technology 121.
- Students learn the fundamental skills necessary to perform major overhaul operations on two stroke cycle diesel engines. Subjects include theory of operation, construction and application, and how to use diesel repair shop equipment and tools. (FT) Transfer Credit: CSU and/or private coll/univ.

#### 125A Advanced Diesel Engines I
- **3 hours lecture, 3 hours lab, 4 units**
- **Grade Only**
- **Prerequisite:** Diesel Technology 125 with a grade of “C” or better, or equivalent.
- **Corequisite:** Completion of or concurrent enrollment in Diesel Technology 100, or equivalent.
- This is an advanced course in theory and laboratory practice of evaluation and rebuilding of two stroke cycle diesel engines. The independent performance of each student is emphasized during the evaluation and reconditioning of the basic engine and the engine lubricating, cooling, air, and exhaust systems. (FT) Transfer Credit: CSU and/or private coll/univ.

#### 126 Diesel Engines II
- **3 hours lecture, 3 hours lab, 4 units**
- **Grade Only**
- **Corequisite:** Completion of or concurrent enrollment in Diesel Technology 100 or equivalent.
- **Limitation on Enrollment:** This course is not open to students with credit for Diesel Technology 120 or 201A, or 122.
- Theory and laboratory practice in disassembly, evaluation and rebuilding of four stroke cycle diesel engines. (FT) Transfer Credit: CSU and/or private coll/univ.

#### 135 Applied Failure Analysis
- **3 hours lecture, 3 units**
- **Grade Only**
- Students learn about the fundamental principles involved in failure analysis of heavy duty diesel engine components. They also learn problem solving based on basic metallurgy concepts, different types of metals, metal forming processes, analysis of fractures, and identification of component wear characteristics. (FT) Transfer Credit: CSU and/or private coll/univ.

#### 137 Diesel Fuel Injection Systems
- **1 hour lecture, 3 hours lab, 2 units**
- **Grade Only**
- **Corequisite:** Completion of or concurrent enrollment in Diesel Technology 100 or equivalent.
- Students learn the basic skills necessary to understand and service diesel fuel injection systems. They learn which industry-based procedures are used to disassemble, assemble, and test fuel pumps, nozzles, and injectors. Students also learn how industry-based standards are used for maintaining, repairing, and adjusting fuel pumps, governors, and injectors on live diesel engines. (FT) Transfer Credit: CSU and/or private coll/univ.

#### 137A Advanced Diesel Fuel Injection Systems
- **1 hour lecture, 3 hours lab, 2 units**
- **Grade Only**
- **Prerequisite:** Diesel Technology 137 and 144, each with a grade of "C" or better, or equivalent.
- This course concentrates on the electronically controlled fuel injection systems of Caterpillar, Cummins, and Detroit Diesel engines. Students perform independently while learning system design, analysis, and mechanical adjustments. Students learn how to use electronic service tools to access and set programmable system features and electronic diagnostic tools to troubleshoot system malfunctions. (FT) Transfer Credit: CSU and/or private coll/univ.

#### 138 Electrical Systems
- **2 hours lecture, 3 hours lab, 3 units**
- **Grade Only**
- **Corequisite:** Completion of or concurrent enrollment in Diesel Technology 100, or equivalent.
- **Limitation on Enrollment:** This course is not open to students with credit for Diesel Technology 130 or 215.
- A course in Heavy-Duty Transportation (HDT) and Heavy Equipment Technology (HET). Principles and practices in the operation and servicing of diesel truck and equipment electrical systems including: cab and chassis wiring, ATA trailer wiring, and the starting and charging system including troubleshooting with the use of wiring diagrams and diagnostic tools. (FT) Transfer Credit: CSU and/or private coll/univ.

#### 144 Electronics for Diesel Technology
- **3 hours lecture, 3 units**
- **Grade Only**
- Students learn the basic principles of electronics related to heavy duty diesel powered equipment. Topics include basic electrical theory, series circuits, parallel circuits, circuit testing, and component identification. (FT) Transfer Credit: CSU and/or private coll/univ.
155 Air Brake Systems
2 hours lecture, 3 hours lab, 3 units
Grade Only
Corequisite: Completion of or concurrent enrollment in Diesel Technology 100 with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with previous credit for Diesel Technology 140 or 214.
Students learn principles and practices of the operation and servicing of heavy duty transportation and equipment air brake systems. Topics include S-cam brakes, wedge brakes, disc brakes, air compressors, air reservoir systems, piping, control valves, switches, and actuators used in heavy duty transportation and equipment air systems. (FT) Transfer Credit: CSU and/or private coll/univ.

170 Truck Drive Axles and Specifications
2 hours lecture, 3 hours lab, 3 units
Grade Only
Corequisite: Completion of or concurrent enrollment in Diesel Technology 100 with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with previous credit for Diesel Technology 140 or 214.

160 H.D. Transmissions
2 hours lecture, 3 hours lab, 3 units
Grade Only
Corequisite: Completion of or concurrent enrollment in Diesel Technology 100, or equivalent.
Limitation on Enrollment: This course is not open to students with credit for Diesel Technology 130 or 211A.
A course in Heavy Duty Transportation (HDT). Theory and laboratory practice including overhaul, maintenance and troubleshooting of main, auxiliary and twin countershaft manual transmissions and air shift systems. (FT) Transfer Credit: CSU and/or private coll/univ.

165 Truck Automatic Transmissions
2 hours lecture, 3 hours lab, 3 units
Grade Only
Corequisite: Completion of or concurrent enrollment in Diesel Technology 100, or equivalent.
Students learn how to maintain, overhaul, and troubleshoot automatic transmissions for heavy duty transportation (HDT) using accepted industry standards and procedures. The course includes theory and laboratory practice. Students also learn how to prepare written records of HDT repairs. (FT) Transfer Credit: CSU and/or private coll/univ.

180 Steering, Suspension, and Driveline Systems
2 hours lecture, 3 hours lab, 3 units
Grade Only
Corequisite: Completion of or concurrent enrollment in Diesel Technology 100 with a grade of "C" or better, or equivalent.
This Heavy Duty Transportation (HDT) course covers the principles and practices involved in operating and servicing HDT steering systems, suspension systems, and drivelines. Students also learn common industry methods to perform vibration analyses of steering, suspension, and driveline systems. (FT) Transfer Credit: CSU and/or private coll/univ.

175 Truck Chassis R&R
2 hours lecture, 3 hours lab, 3 units
Grade Only
Corequisite: Completion of or concurrent enrollment in Diesel Technology 100, or equivalent.
Limitation on Enrollment: This course is not open to students with credit for Diesel Technology 130 or 140.
A course in Heavy Duty Transportation (HDT). Theory and laboratory practice including safe use of specialized and general shop equipment and hand tools for the removal and replacement of components in general shop repairs of heavy duty transportation units including installation and troubleshooting of clutches. (FT) Transfer Credit: CSU and/or private coll/univ.

185 Power Trains A (HDT)
4 hours lecture, 6 hours lab, 6 units
Grade Only
Corequisite: Completion of or concurrent enrollment in Diesel Technology 100, or equivalent.
Limitation on Enrollment: This course is not open to students with credit for Diesel Technology 160 or 175.
A course in Heavy Duty Transportation (HDT). Theory and laboratory practice including: installation and troubleshooting of single and double disc clutches; overhaul, maintenance and troubleshooting of main, auxiliary and twin countershaft manual transmissions and air shift systems; theory and laboratory practice including safe use of specialized and general shop equipment and hand tools for the removal and replacement of components in general shop repairs of
heavy duty transportation units. (FT) Transfer Credit: CSU and/or private coll/univ.

190 Power Trains B (HDT)
4 hours lecture, 6 hours lab, 6 units
Grade Only
Corequisite: Completion of or concurrent enrollment in Diesel Technology 100 with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with previous credit for Diesel Technology 165 or 200.
This Heavy Duty Transportation (HDT) course covers the principles and practices involved in operating and servicing mobile hydraulic systems and components. These systems and components include reservoirs, pumps, actuators, valves, piping, and fittings. Students also learn how to maintain, overhaul, and troubleshoot HDT automatic transmissions using accepted industry standards and procedures. (FT) Transfer Credit: CSU and/or private coll/univ.

200 Mobile Hydraulic Systems
2 hours lecture, 3 hours lab, 3 units
Grade Only
Corequisite: Completion of or concurrent enrollment in Diesel Technology 100 with a grade of "C" or better, or equivalent.
This Heavy Duty Transportation (HDT) and Heavy Equipment Technology (HET) course covers the principles and practices involved in operating and servicing mobile hydraulic systems and components. These systems and components include reservoirs, pumps, actuators, valves, piping, and fittings. Students learn how to use standard industry procedures, hydraulic schematics, and test equipment for diagnosing, analyzing, and repairing HDT mobile hydraulic systems and components. (FT) Transfer Credit: CSU and/or private coll/univ.

210 Brakes, Final Drives and Steering Systems
2 hours lecture, 3 hours lab, 3 units
Grade Only
Corequisite: Completion of or concurrent enrollment in Diesel Technology 100, or equivalent.
A course in Heavy Equipment Technology (HET). Principles and practices in the operation and servicing of heavy equipment brakes, final drive systems and steering systems. (FT) Transfer Credit: CSU and/or private coll/univ.

220 Undercarriage
2 hours lecture, 3 hours lab, 3 units
Grade Only
Corequisite: Completion of or concurrent enrollment in Diesel Technology 100, or equivalent.
A course in Heavy Equipment Technology. Theory and laboratory practice in the fundamentals of operation, wear analysis, preventive maintenance, and major service of track-type undercarriages. (FT) Transfer Credit: CSU and/or private coll/univ.

230 Heavy Equipment Transmissions
4 hours lecture, 6 hours lab, 6 units
Grade Only
Corequisite: Completion of or concurrent enrollment in Diesel Technology 100 with a grade of "C" or better, or equivalent.
This Heavy Equipment Technology (HET) course covers the principles and practices involved in operating and servicing heavy equipment torque converters and power-shift transmissions. Students also learn how to prepare written records of repairs using accepted industry specifications. (FT) Transfer Credit: CSU and/or private coll/univ.

235 Power Trains C (HET)
4 hours lecture, 6 hours lab, 6 units
Grade Only
Corequisite: Completion of or concurrent enrollment in Diesel Technology 100, or equivalent. This course is not open to students with credit for Diesel Technology 160 and 240.
A course in Heavy Equipment Technology (HET). Theory and laboratory practice including installation and troubleshooting of single and double disc clutches, overhaul, maintenance and troubleshooting of main auxiliary and twin countershaft manual transmissions and air shift systems and theory and laboratory practice including safe use of specialized and general shop equipment and hand tools for the removal and replacement of components in general shop repairs of heavy equipment units. (FT) Transfer Credit: CSU and/or private coll/univ.

240 Equipment Chassis R&R
2 hours lecture, 3 hours lab, 3 units
Grade Only
Corequisite: Completion of or concurrent enrollment in Diesel Technology 100, or equivalent.
A course in Heavy Equipment Technology (HET). Theory and laboratory practice including safe use of specialized and general shop equipment and hand tools for the removal and replacement of components in general shop repairs of heavy equipment units including
installation and troubleshooting of clutches. (FT) Transfer Credit: CSU and/or private coll/univ.

245 Power Trains D (HET)
4 hours lecture, 6 hours lab, 6 units
Grade Only

Corequisite: Completion of or concurrent enrollment in Diesel Technology 100, or equivalent.

Limitation on Enrollment: This course is not open to students with credit for Diesel Technology 200 or 230. A course in Heavy Equipment Technology (HET).

Principles and practices in the operation and servicing of mobile hydraulic systems and components including reservoirs, pumps, actuators, valves, piping and fittings, and use of common recommended shop procedures, hydraulic schematics, and test equipment for diagnosis, failure analysis, and system and component repair and theory and principles and practices in the operation and servicing of heavy duty equipment hydraulic transmissions, including powershift transmissions. (FT) Transfer Credit: CSU and/or private coll/univ.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

51A GATF - Imaging Skills Training I
2 hours lecture, 3 hours lab, 3 units
Grade Only

This course is designed for training and re-training pre-press students and those in the industry. This beginning course ties in to the demand for a highly skilled digital workforce and supports the industry-wide imaging skill standards developed by the National Council for Skill Standard in Graphic Communications. (FT) Associate Degree Credit.

51B GATF - Imaging Skills Training II
2 hours lecture, 3 hours lab, 3 units
Grade Only

Prerequisite: ARTD 51A with a grade of "C" or better or equivalent.

This course is a continuation of ARTD 51A for training and re-training pre-press students and those in the industry. This course ties in to the demand for a highly skilled digital workforce and supports the industry-wide imaging skill standards developed by the National Council for Skill Standard in Graphic Communications. (FT) Associate Degree Credit.
34 College Success Skills

1 hour lecture, 1 unit
Credit/No Credit Only

Limitation on Enrollment: This course is not open to students with credit for Disabled Students Programs and Services 29.

This course is designed to assist students with disabilities to achieve their educational goals by providing them with an orientation to the college campus, policies, procedures and support services such as financial aid, tutoring, counseling, computer labs, and career and transfer information. Emphasis is placed on time management, mental and physical health, study skills, self-advocacy, accommodations, and interpersonal relationships as they relate to individual disabilities and college success. Throughout the course, students clarify goals, develop an education plan and identify the courses, services and programs that will lead to their success. Credit for this course does not apply to the associate degree.

38 Math Strategies for the Learning Disabled

3 hours, 3 units
Credit/No Credit Only

This course is designed for students with verified disabilities related to mathematics. It is taught as a lecture class that can be taken independently or in conjunction with Mathematics 32/Mathematics 35. This class utilizes a strategies-oriented course developing competency with basic mathematical operations and pre-algebra concepts. This course, in combination with Disabled Students Programs and Services 73, may be taken four times for credit. Credit for this course does not apply to the associate degree.

40 Individual Assessment and Educational Planning

0.5 hour, 0.5 unit
Credit/No Credit Only

Limitation on Enrollment: This course is not open to students with credit for Disabled Students Programs and Services 50.

This course is designed to facilitate students’ awareness of individual learning aptitude as compared to measured academic achievement. Standardized achievement and aptitude assessment instruments are individually administered during the course in accordance with California Community College Learning Disabilities Eligibility Model to document a learning profile related to community college academic demands. Related academic study strategies and possible learning disability accommodations are addressed when appropriate. Credit for this course will not apply to the associate degree.

41 Introduction to Applied Study Skills and Strategies

0.5 hour lecture, 2 – 3 hours lab, 0.5 – 1.5 units
Credit/No Credit Only

This course is designed for students who are enrolled in a college course in which they have a verified disability related limitation. It is recommended for students who would benefit from formal assessment and small group instruction in applied study skills and learning strategies. The course provides guided instruction in the application of study skill strategies to a mainstreamed course. The focus of the course is on developing generalized study skills that (1) relate to successful learning in the community college setting and (2) that can be altered through individual effort and instruction. Individually guided practice of study skills is supported in an individual and/or small group setting. This course may be taken for lab credit four times with different content for a maximum of four units. Credit for the course does not apply to the associate degree.

42 Basic Skills Applied Study Strategies

2 - 3 hours lab, 0.5 – 1 unit
Credit/No Credit Only

This course is intended primarily for students needing disability related specialized support in mainstream basic skills classes in addition to the campus wide academic support services. The focus of this class is to provide study skill assistance for students enrolled in basic skill college classes. Initial emphasis is placed both on the application and generalization of study strategies as well as on assistive technology. Computer assisted instruction is utilized to supplement, review and rehearse basic skills learning. This course may be taken four times with different content for a maximum of four units. Credit for the course does not apply to the associate degree.

43 Advanced Applied Study Strategies

2 - 3 hours lab, 0.5 – 1 unit
Credit/No Credit Only

This course is intended primarily for students needing advanced academic disability related support in addition to the campus wide academic support services currently available. The focus of this class is to provide individualized study assistance for students in mainstream degree applicable college classes. Emphasis is placed on the application of study strategies to a specific course. Both study strategies and assistive technology are utilized to meet the demands of a
mainstream course content. Computer assisted instruction is used to review related basic skills instruction and to support research skill development. This course may be taken four times with different content for a maximum of four units. Credit for the course does not apply to the associate degree.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

**ECONOMICS (ECON)**

120 Principles of Economics I

3 hours, 3 units  
Grade Only

Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.  
Introduction to basic economic principles and theory relating to problem analysis, structure of our institutions and the formation of public policies. Emphasis is placed on the broad overall performance (macro-analysis) of the economy with concentration in such areas as incomes, employment and output; economic stability and growth; fiscal and monetary policy. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN ECON 2)

121 Principles of Economics II

3 hours, 3 units  
Grade Only

Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.  
A continued study of principles and applications regarding specific economic sectors (micro analysis). Various competitive models in a market economy are studied in detail. Economics of labor unions, farming, international trade and finance provide a background for study and analysis of many current world and domestic problems. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN ECON 4)

197L Economic Topics Computerized

3 - 4.5 hours lab, 1 - 1.5 units  

Advisory: Concurrent enrollment in Economics 120 or 121.  
An interdisciplinary course to supplement the lecture in Economics with computer aided instruction. Computer software, both CAI and commercial packages, are available to assist the students in understanding business concepts. Transfer Credit: CSU and/or private coll/univ.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.
EDUCATION (EDUC)

100 Tutor Training
0.5 hour lecture, 1.5 hours lab, 1 unit
Credit/No Credit Only

Limitation on Enrollment: Student must have completed a minimum of 12 units of college credit with an accumulated grade point average of 3.0 or better in subject area they will tutor. Designed to prepare college-level persons for tutoring adult/college students. Tutoring methods, use of appropriate written and mediated instructional materials, and supervised practice tutoring are included in this course. (FT) Transfer Credit: CSU and/or private coll/univ.

200 Teaching as a Profession
3 hours, 3 units
Grade Only

Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and Educational Technology 199.

Limitation on Enrollment: Must meet safety and health clearance standards for a public school field experience placement.

This course is designed for students considering teaching as a profession, for paraprofessionals, and for volunteer tutors working in the public school system. Career exploration, foundations of education, critical issues, and an introduction to literacy acquisition are addressed. Guided observations of public school classrooms in a variety of subject areas are a requirement of the course. (FT) Transfer Credit: CSU and/or private coll/univ.

202 Introduction to Literacy Instruction
2 hours lecture, 2 units
Grade Only

Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.

This course is designed for students participating in the Liberal Studies Blended Teacher Education Program, for students considering teaching as a profession, and for prospective literacy tutors. The basic processes of literacy acquisition are presented. Students develop competency in instructional literacy strategies and essential competencies for delivering culturally relevant reading instruction to emerging readers. Students should be prepared to complete the procedures necessary for field work in schools. (FT) Transfer Credit: CSU and/or private coll/univ.

203 Service Learning for Introduction to Literacy
1 hour lecture, 1 unit

Prerequisite: Education 202 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: Student must meet "C" or better, or equivalent. This course is designed for students participating in the Liberal Studies Blended Teacher Education Program, for students considering teaching as a profession, and for prospective literacy tutors. The purpose of this course is to provide early, supervised experience to pre-service teachers in the form of service learning. The lectures provide for orientation, literacy instruction review, reflection and problem solving. In addition, a minimum of thirty hours of volunteer service work is required. Experiential learning activities include literacy tutoring at various educational levels. Through this service learning, students begin to develop fluency with the fundamental skills of literacy development and with literacy instruction as applied to individuals, small groups, and whole classes. Additionally, they are mentored in the application of classroom management techniques and routine teaching skills required in the public schools. (FT) Transfer Credit: CSU and/or private coll/univ.

270 Teaching as a Profession-Work Experience
Hours by arrangement, 1-4 units
Grade Only

Prerequisite: Education 200 with a grade of "C" or better, or equivalent and approval of Work Experience Coordinator.

Limitation on Enrollment: To receive credit a student must complete a minimum of seven units, including Work Experience, during the semester (or four units during the summer session) and must meet safety and health clearance standards for public school Work Experience placement. The combined maximum credit for all work experience courses from all disciplines may not exceed 16 units.
199 Introduction to Educational Technology
1.5 hours lecture, 1.5 hours lab, 2 units
Grade Only
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and Computer Business Technology 101 with a grade of "C" or better, or equivalent.
This course is intended for students participating in the Liberal Studies Blended Teacher Education program and for students considering teaching as a profession. The curriculum is designed to introduce basic computer skills and terminology in the context of teacher education. Basic competencies required for meeting the Educational Technology standards required for teachers are addressed in the curriculum. (FT) Transfer Credit: CSU and/or private coll/univ.

105 Emergency Medical Technician - National Registry
5 hours lecture, 3 hours lab, 6 units
Grade Only
Limitation on Enrollment: This course is not open to students with previous credit for FIPT 130 Health and Safety. Students must have Basic Life Saving (BLS) for Healthcare Provider certificate.
This course covers the techniques of emergency medical care and transportation of the sick and injured within the responsibilities of the Emergency Medical Technician. The course content is based upon the State of California Emergency Medical Services Authority requirements referenced in Title 22, Division 9, Chapter 2, Article L of the California Administrative Code.
Course approval is with the San Diego County Emergency Medical Services. Upon successful completion, the student will be eligible to take the San Diego County Emergency Medical Technician -1 Basic to perform the optional skill of prehospital defibrillation and insertion of the esophageal tracheal airway device (ETAD) for victims of cardiac arrest. Course content includes student demonstration of skill proficiency in basic life support, airway management including placement of the ETAD and recognition/ management of patients requiring pre-hospital defibrillation. Upon successful completion, the student will receive a course completion certificate. This course may be repeated as needed for certification as mandated by the State of California Emergency Medical Services Authority. Transfer Credit: CSU and/or private coll/univ.

350 Recertification Course for San Diego County EMT-1
14 hours lecture (total), 18 hours lab (total), 1 unit
Grade Only
Prerequisite: EMGM 105 or FIPT 130, each with a grade of "C" or better, or equivalent.
Limitation on Enrollment: Must be at least 18 years of age and currently certified/licensed as an EMT Paramedic in California or previously certified/licensed as an EMT Paramedic or EMT II in California or possess or have possessed a valid out-of-state or National Registry EMT Intermediate or EMT Paramedic certificate or one that has not been expired for more than four (4) years and completed training equivalent to the DOT EMT National standard. Must also possess a current BLS-C certification (per California State Law Title 22).
This 32-hour non-associate degree lecture/lab course provides to the San Diego County certified Emergency Medical Technician -1 Basic student a review of didactic knowledge and practical skills required to recertify, as per State of California regulations. The course includes a review of current San Diego EMS treatment guidelines, anatomy, patient assessment, recognition and treatment of life threatening emergencies, emergency childbirth, behavioral emergencies, ambulance operations, triage, and disaster scene management and environmental emergencies. Upon successful

Prerequisite: EMGM 105 or FIPT 130 with a grade of "C" or better, or equivalent.
ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL)

The English for Speakers of Other Languages Program is designed to prepare students to read, write, speak and listen at a level that enables them to succeed in college courses.

The program consists of four levels and the student is assigned a level based on the result of his/her placement test.

The first level, L19, is a combined skills class in a lecture/lab format. Students who successfully complete this course are at the intermediate-low level. Some students at the beginning level may find ESOL 19 difficult. For these students, counselors are available to discuss options and resources, including classes at Continuing Education.

The second and third levels, L20 and L30, are made up of three courses. The grammar-writing component is a six-unit course; the reading and listening/speaking components are three units each.

The fourth level, L40, is a single course in reading and writing. Students who successfully complete ESOL 40 can read and write at an advanced ESOL level. They are prepared to take English courses one level below transfer (ENGL 51 & 56).

019 Transitional English for ESOL Students
3 hours lecture, 6 hours lab, 5 Units
Advisory: Assessment Skill Level L19. Students are advised to take the ESOL placement test prior to enrollment and perform at level 19.

020 Writing for Non-native Speakers of English I
6 hours, 6 units
Prerequisite: English for Speakers of Other Languages 19 with a grade of “C” or better, or equivalent, or Assessment Skill Level L20.
Limitation on Enrollment: This course is not open to students with credit for English 008 or 60.
This course in writing and grammar prepares students to write at the intermediate-mid ESOL level. In this course, students learn to write paragraphs, basic compositions and other types of texts and practice critical reasoning in their writing. Students read and understand a variety of texts and develop academic study skills and work habits. Students also practice grammatical structures in the production and editing of compositions so that meaning is generally clear and not obscured by error. Credit does not apply to the associate degree. (FT)

021 Reading for Non-native Speakers of English I
3 hours, 3 units
Prerequisite: English for Speakers of Other Languages 19 with a grade of “C” or better, or equivalent, or Assessment Skill Level L20.
Limitation on Enrollment: This course is not open to students with credit for English 008 or 60.
This course prepares students to read at the intermediate-mid ESOL level. In this course, students learn reading strategies and apply them as they read a variety of texts. Students practice identifying text organization, vocabulary and grammar to facilitate comprehension. Students also begin to use information from class readings in discussion, critical thinking and writing. (FT) Credit does not apply to the associate degree.
**022 Listening and Speaking for Non-native Speakers of English I**  
3 hours, 3 units  
*Prerequisite:* English for Speakers of Other Languages 19 with a grade of “C” or better, or equivalent, or Assessment Skill Level L20.  
This course prepares students to understand spoken English and speak at the intermediate-mid ESOL level. In this course, students begin to develop communicative competence through listening to and participating in a variety of communicative activities. Students also begin to study grammatical structures specifically related to oral/aural course work to make connections between structure and communicative needs. In addition, students discuss, write about and think critically about information from oral and written sources. (FT) Credit does not apply to the associate degree.

**030 Writing for Non-native Speakers of English II**  
6 hours, 6 units  
*Prerequisite:* English for Speakers of Other Languages 20, 21, and 22, each with a grade of “C” or better, or equivalent, or Assessment Skill Level L30.  
*Limitation on Enrollment:* This course is not open to students with credit for English 009 or 61.  
This course prepares students to understand spoken English and speak at the intermediate-high ESOL level. Students learn to write compositions and other types of texts that communicate a basic awareness of critical reasoning and the components of the academic essay and other types of writing. To achieve these goals, students learn and apply knowledge of syntax and grammatical structures in the production and editing of compositions so that errors, which may be frequent, will not obscure meaning. Students also read and understand a variety of texts as well as communicate a familiarity with academic study skills and work habits. Credit does not apply to the associate degree.

**031 Reading for Non-native Speakers of English II**  
3 hours, 3 units  
*Prerequisite:* English for Speakers of Other Languages 20, 21, and 22, each with a grade of “C” or better, or equivalent, or Assessment Skill Level L30.  
This course prepares students to read at the intermediate-high ESOL level. In this course, students continue to develop reading skills needed for academic and workplace success. To achieve these goals, students read a variety of texts and apply appropriate reading strategies to facilitate comprehension. In addition, students engage in activities to build background knowledge as well as knowledge of text structure, grammar and vocabulary. Students also use information from class reading in class discussion, critical thinking and writing. (FT) Credit does not apply to the associate degree.

**032 Listening and Speaking for Non-native Speakers of English II**  
3 hours, 3 units  
*Prerequisite:* English for Speakers of Other Languages 20, 21, and 22, each with a grade of “C” or better, or equivalent, or Assessment Skill Level L30.  
This course prepares students to understand spoken English and speak at the intermediate-high ESOL level. In this course, students continue to develop communicative competence through listening to and participating in a variety of communicative activities. Students also continue to develop knowledge of grammatical structures specifically related to oral/aural course work. In addition, students discuss, write about, and think critically about information from oral and written sources. (FT) Credit does not apply to the associate degree.

**040 Reading and Writing for Non-native Speakers of English III**  
6 hours, 6 units  
*Prerequisite:* English for Speakers of Other Languages 30, 31, and 32, each with a grade of “C” or better, or equivalent, or Assessment Skill Level L40.  
*Limitation on Enrollment:* This course is not open to students with credit for English 010 or 62.  
This course prepares students to read and write at the advanced ESOL level. In this course students write essays and other types of texts that have some complexity of expression, contain relatively few mechanical and grammatical errors and illustrate evidence of critical reasoning. Students also read academic and workplace texts and apply study skills and work habits necessary for success in further academic and vocational studies. Students who complete this course will be prepared to enter English 51 and English 56. (FT) Credit does not apply to the associate degree.
ENGLISH (ENGL)

Basic Skills Courses
All courses at this level are offered for college credit. Credit for these courses will not apply toward the associate degree, but will count toward the determination of a student's workload and eligibility for financial aid.

Reading

042 College Reading and Study Skills I
(formerly Egnlish 055)
3 hours lecture, 3 units
Advisory: Assessment Skill Level R3. This course is designed for native speakers of English. ESL students should enroll in ESOL 19, 20, 21, 22, 30, 31, 32 or 40 as recommended by the placement test for non-native English speakers.
Limitation on enrollment: This course is not open to students with previous credit for English 55.
This course is designed for students who need to improve their reading skills in order to succeed in college courses. In this course, students practice the reading process, reading extensively and intensively, and develop confidence and enjoyment in reading. Students also read and respond to a variety of materials, including non-fiction and textbook assignments, and learn strategies for reading difficult material to facilitate comprehension and critical thinking. In addition, students develop writing, vocabulary, discussion, and study skills. (FT) Credit for this course does not apply to the associate degree.

050 English Review
(see English 043 on page 230)

055 College Reading and Study Skills I
(see English 042 on page 230)

Writing

051 Basic Composition
3 hours lecture, 3 units
Prerequisite: English for Speakers of Other Languages 40 or English 43 with a grade of "C" or better, or equivalent, or Assessment Skill Level W4.
This course is designed to prepare students to write successfully at the transfer level. In this course students practice the writing process in the production and editing of essays. Students also review grammatical and mechanical structures as needed to support the successful expression of meaning. In addition, students read and think critically using a variety of texts which are the basis for writing and class discussion. A District-wide, timed-writing examination, holistically graded by English instructors, is part of the final course grade. Designated sections of this course may be taught from a specific cultural perspective and are cross-listed under Black Studies and Chicano Studies in the class schedule. Three units of English credit at this level (either English 51 or English 56) may be applied to the associate degree. (FT) Associate Degree Credit.

English 101 Preparatory Courses
All courses at this level are offered for college credit. Three units of course work at this level may be applied to the associate degree. Credit for courses at this level will count toward the determination of a student's workload and eligibility for financial aid.

Writing

056 College Reading and Study Skills II
3 hours lecture, 3 units
Prerequisite: English for Speakers of Other Languages 40 or English 42 with a grade of "C" or better, or equivalent, or Assessment Skill Level R4.
This course is designed for students who need to develop advanced reading skills to succeed in transfer and complete sentences, paragraphs, and short essays. Students also read texts as the basis for writing and develop critical thinking skills necessary for success in college courses. (FT) Credit for this course does not apply to the associate degree.
level courses. In this course, students focus on academic reading and study skills and practice strategies to improve reading comprehension and critical thinking. Students also build writing, vocabulary, discussion and study skills to accurately express information and reflect the meaning of class readings. Three units of English credit at this level (either English 51 or English 56) may be applied to the associate degree. (FT) Associate Degree Credit.

English Courses
(Also see Humanities)

047L Skills: English Center and Laboratory
1-12 hours lab, 0 units
Credit/No Credit Only

Limitation on Enrollment: Student must be enrolled in a companion college course. This is an open entry/open exit supplemental course designed to assist students to succeed in completing their computer assignments in a companion course. This course may be taken four times with different companion subject matter courses as needed. This course does not apply to the associate degree.

092A Persuasive Writing
3 hours, 3 units
Credit/No Credit

This course is intended for students enrolled at San Diego State University; for Freshmen, a score of 150 or lower on the CSU English Placement Test (EPT), and for transfer students, a score of 7 or lower on the Transfer Writing Assessment (TWA). It is designed to help students develop methods of reading and writing necessary for success in SDSU’s Rhetoric and Writing Studies 100. In this course, students read persuasive texts and integrate the ideas of multiple authors and their own into argumentative essays. The course stresses paragraph and essay development and reviews sentence structure, mechanics, and grammar as needed. To earn a grade of "CR," SDSU students must submit a passing final portfolio graded by SDSU’s Rhetoric and Writing Studies (RWS) Department. (FT) Associate Degree Credit.

101 Reading and Composition
3 hours lecture, 3 units

Prerequisite: English 51 and English 56; or English 92A or English 92B or English 64, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.

This course is designed to help students develop methods of reading and writing necessary for success in SDSU’s Rhetoric and Writing Studies 100. In this course, students read persuasive texts and integrate the ideas of multiple authors and their own into argumentative essays. The course stresses paragraphs and essay development and reviews sentence structure, mechanics, and grammar as needed. To earn a grade of "CR," SDSU students must submit a passing final portfolio graded by SDSU’s Rhetoric and Writing Studies (RWS) Department. (FT) Associate Degree Credit.

105 Composition and Literature
3 hours lecture, 3 units

Prerequisite: English 51 and 56; or English 064; or English 92A or 92B, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.

This is a composition course using literature as a background for improving writing skills. Students discuss the general nature and elements of literature and literary criticism by reading and analyzing representative works of fiction, drama, and poetry. This written work, which demonstrates effective, logical, and precise expression of ideas, totals at least 6000 graded words. Designated sections of this course may be taught from a specific cultural perspective. (FT) Transfer Credit: CSU and/or private coll/univ; UC. (CAN ENGL 2) (CAN ENGL SEQ A = ENGL 101+105)
205 Critical Thinking and Intermediate Composition

3 hours, 3 units

Prerequisite: English 101 or English 105 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W6 and R6.

This course is designed to help students who are planning to transfer to a four-year college or university to develop critical thinking, reading, writing, and research skills beyond the level of English 101 and English 105; it is a required course within many curricula. Assignments require a total of at least 8,000 words of graded writing. The course focuses on writing argumentative prose and critically evaluating arguments. A majority of the written assignments require some research and documentation, including library research. Designated sections of this course may be taught from a specific cultural perspective and are cross-listed under Black Studies and Chicano Studies in the catalog and class schedule. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

208 Introduction to Literature

3 hours, 3 units

Prerequisite: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.

Advisory: Completion of English 101 or English 105 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W6 and R6.

This course provides an inquiry into the basic nature of literature and is designed for students with a general interest as well as for those majoring in the field. Students read and analyze representative literary works in fiction, non-fiction, poetry and drama from various cultures and periods, applying practical critical techniques in essays, reports, and exams. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

209 Literary Approaches to Film

3 hours lecture, 3 units

Prerequisite: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.

Advisory: English 101 or English 105, with a grade of "C" or better, or equivalent, or Assessment Skill Levels W6 and R6.

This course focuses on literary values, such as plot, conflict, symbolism, theme and character as observed in feature films. It also focuses on cultural values with special reference as to how films define problems, establish a network of varied values, confront moral dilemmas, and explore human emotions. This course satisfies general education requirements in humanities and serves as an elective for English majors. It is designed for students who are interested in literature as well as those interested in the study of film. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

210 American Literature I

3 hours, 3 units

Prerequisite: English 101 or English 105 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W6 and R6.

This course is a survey of American literature from its beginning to the late 19th Century including representative works from the Colonial Period (1588-1765), the New Republic (1765-1829). In this class students read and discuss the authors of these periods, addressing relevant social, political, cultural, and religious issues. The students critically analyze in essays, exams, and research papers the authors, specific works, and other topics as assigned. Classroom activities include lectures and discussions of the principal authors and works. Selected representative readings are required. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN ENGL 14) (CAN ENGL SEQ C = ENGL 210+211).

211 American Literature II

3 hours, 3 units

Prerequisite: English 101 or English 105 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W6 and R6.

A survey of American literature from the late 19th Century to the present which includes representative works from the Age of Realism (1865-1914), the Modernist Period (1914-1945), and the Postmodern Era (1950-present). In this class students read and discuss the authors of these periods, addressing relevant social, political, cultural, and religious issues. The students critically analyze in essays, exams, and research papers the authors, specific works, and other topics as assigned. Classroom activities include lectures and discussions of the principal authors and their works. Selected representative readings are required. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN ENGL 16) (CAN ENGL SEQ C = ENGL 210+211).

215 English Literature I: 800-1799

3 hours, 3 units

Prerequisite: English 101 or English 105 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W6 and R6.

This course offers a survey of British literature from the Anglo-Saxon period to the pre-Romantic period (approximately 800 to 1799), including representative works from the Old and Middle English periods, the
Renaissance and the Elizabethans, the Cavalier, Metaphysical, and Puritan periods, the Restoration and the Neoclassical periods. Students read and discuss the major authors of these periods, addressing relevant social, political, cultural, and religious issues. Students critically analyze, in essays and research papers, authors, specific works, and other topics as assigned. This course satisfies requirements for the major in English as well as general education and humanities requirements. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN ENGL 8). (CAN ENGL SEQ B = ENGL 215+216)

216 English Literature II: 1800-Present
3 hours, 3 units
Prerequisite: English 101 or English 105 with a grade of “C” or better, or equivalent, or Assessment Skill Levels W6 and R6.
This course offers a survey of British literature from the Romantic period to the 20th Century (approximately 1800 to the present) including representative works from the pre-Romantic and, Romantic periods, the Victorian and later Victorian period, and the Modern period. Students read and discuss the major authors of these periods, addressing relevant social, political, cultural, and religious issues. Students critically analyze, in essays and research papers, specific works, themes, and other topics as assigned. This course satisfies requirements for the major in English as well as general education and humanities requirements. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN ENGL SEQ B = ENGL 215+216).

220 Masterpieces of World Literature I: 1500 BCE - 1600 CE
3 hours lecture, 3 units
Prerequisite: English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skill Level W5/R5.
Advisory: English 101 or English 105 with a grade of “C” or better, or equivalent, or Assessment Skill Level W6/R6.
This course offers a survey of world literature in translation, from the ancient world through the European renaissance (approximately 1500 BCE - 1600 CE), including the established classic literature of the Near East, Greece and Rome, India, China, Japan, Africa, the Islamic world, and Europe. Students read and discuss a variety of authors from these regions and address relevant social, cultural, and religious issues. Students critically analyze in essays and papers, specific authors, works, themes, and other topics as assigned. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

221 Masterpieces of World Literature II: 1600 - Present
3 hours, 3 units
Prerequisite: English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5.
Advisory: English 101 or English 105 with a grade of “C” or better, or equivalent, or Assessment Skill Levels W6 and R6.
This course offers a survey of world literature in translation, from the close of the European renaissance through the present time, including the literature of Asia, Europe, North America, Central America, South America, Africa and the Islamic world. Students read and discuss a variety of authors from these regions and address relevant social, religious, and cultural issues. Students critically analyze, in essays and papers, specific authors, works, themes, and other topics as assigned. This course satisfies requirements for the major in English as well as general education and humanities requirements. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

237 Women in Literature
3 hours, 3 units
Prerequisite: English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5.
Advisory: English 101 or English 105 with a grade of “C” or better, or equivalent, or Assessment Skill Levels W6 and R6.
This course introduces the student to images of women in literature and to women writers. Students read from a variety of genres including stories, poetry, novels, and essays, written by women and men from a range of social, cultural, and ethnic backgrounds. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

249 Introduction to Creative Writing
3 hours, 3 units
Prerequisite: English 51 with a grade of “C” or better, or equivalent, or Assessment Skill Level W5.
Advisory: English 101 or English 105 with a grade of “C” or better, or equivalent, or Assessment Skill Levels W6 and R6.
Limitation on Enrollment: This course is not open to students who have credit for English 249A or English 249B.
This is an introductory course in creative writing which focuses on the study of fiction and poetry. Students analyze technical in the works of professional writers and in their own original works. After submitting writing, students participate in informal discussion of their work which includes helpful criticism from the
Practical application of basic rescue, fire suppression, apparatus, and equipment operation and maintenance procedures. (FT) Transfer Credit: CSU and/or private coll/univ.

100A Introduction to Fire Suppression and Maintenance Manipulative Tasks (Beginning)  
2 hours lecture, 5 hours lab, 3.5 units  
Grade Only

Limitation on Enrollment: This course is not open to students with credit for FIRE 100A.

100B Introduction to Fire Suppression and Maintenance Manipulative Tasks (Intermediate)  
2 hours lecture, 5 hours lab, 3.5 units  
Grade Only

Prerequisite: Fire Protection Technology 100A with a grade of “C” or better, or equivalent.  
Limitation on Enrollment: This course is not open to students with credit for FIRE 100B.  
Training and operation of fire service equipment: Extinguishers and protective equipment, hose, nozzles, fittings, hose evolutions, fire service ladders, salvage and overhaul procedures, at an intermediate level within the guidelines of training for Firefighter I certification as specified by the California Fire Service Training and Education Division of the Office of the state Fire Marshal. (FT) Transfer Credit: CSU and/or private coll/univ.

100C Introduction to Fire Suppression and Maintenance Manipulative Tasks (Advanced)  
2 hours lecture, 5 hours lab, 3.5 units  
Grade Only

Prerequisite: Fire Protection Technology 100B with a grade of “C” or better, or equivalent.  
Limitation on Enrollment: This course is not open to students with credit for FIRE 100C.  
Operation and training with fire apparatus and equipment at an advanced level to qualify for the manipulative training portion for Firefighter I as specified by the California Fire Service Training and Education Division of the State Fire Marshals Office. (FT) Transfer Credit: CSU and/or private coll/univ.

101 Fire Protection Organization  
3 hours, 3 units  
Grade Only

Limitation on Enrollment: This course is not open to students with credit for FIRE 101.  
Provides an introduction to fire protection, career opportunities in fire protection and related fields; philosophy and history of fire protection; fire loss analysis; organization and function of public and private fire protection services; fire department as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics. (FT) Transfer Credit: CSU and/or private coll/univ.
102 Fire Prevention Technology
3 hours, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with credit for FIRE 202.
Provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau; use of fire codes; identification and correction of fire hazards; and the relationship of fire prevention to fire safety education and detection and suppression systems. (FT) Transfer Credit: CSU and/or private coll/univ.

103 Fire Protection Equipment and Systems
3 hours, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with credit for FIRE 154.
Course provides information relating to the features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers. (FT) Transfer Credit: CSU and/or private coll/univ.

104 Building Construction for Fire Protection
3 hours, 3 units
Grade Only

This course is the study of the components of building construction that relate to fire safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, pre-planning fire operations, and operating at fires. The development and evolution of building and fire codes will be studied in relationship to past fires in residential, commercial, and industrial occupancies. (FT) Transfer Credit: CSU and/or private coll/univ.

105 Fire Behavior and Combustion
3 hours, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with credit for FIRE 104.
Theory and fundamentals of how and why fires start, spread, and are controlled. An in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents, and fire control techniques. (FT) Transfer Credit: CSU and/or private coll/univ.

106 Truck Company Operations
3 hours, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with credit for FIRE 153.
Course is designed to introduce students to the planning and operation of truck companies at fires and other emergencies. Truck company equipment, personnel requirements, and the variety of truck company responsibilities will be related to the strategies, tactics, and specialized skills required for truck company operations. (FT) Transfer Credit: CSU and/or private coll/univ.

107 Fire Fighting Tactics and Strategy
3 hours, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with credit for FIRE 155.
This course provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment, pre-planning fire problems, and extinguishing agents on the fire ground. Review of fire chemistry, methods of fire attack, and basic fire fighting tactics and strategy. (FT) Transfer Credit: CSU and/or private coll/univ.

108 Use of Microcomputers in the Fire Service
12 hours lecture, 12 hours lab, 2 units
Grade Only

Limitation on Enrollment: This course is not open to students with credit for FIRE 108.
Designed to support the utilization of low-cost computers as a tool. Topics include: analysis, data processing, use of hardware, formatting commercial software for fire service use. (FT) Transfer Credit: CSU and/or private coll/univ.

109 Fire Service Hydraulics
3 hours, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with credit for FIRE 151.
Applied mathematics; hydraulics laws, formulas, application of formulas and mental calculation to hydraulic and water supply problems; calculations required to assure adequate water pressures and volumes at fire department operations. Besides calculations, emphasis of the course will be the principles of the pressure of fluids, fire pump operation and design, hose line construction and capability, and the capabilities of a community water supply. (FT) Transfer Credit: CSU and/or private coll/univ.

110 Wildland Fire Control
3 hours lecture, 3 units
Grade Only

Limitation on Enrollment: This course is not open to students with credit for FIRE 217.
This course provides the student with a fundamental knowledge of the factors affecting Wildland fires including fuel, weather, topography, prevention, fire behavior, public education, and control techniques common to all agencies involved in wildland fire control. (FT) Transfer Credit: CSU and/or private coll/univ.

111 Fire Apparatus and Equipment
3 hours, 3 units  
Grade Only

A study of the specifications, design, construction features, and operational capabilities of firefighting apparatus including mobile and fixed apparatus. Focus will be on the effective deployment, utilization and performance of pumpers, ladder trucks, and related specialized equipment under emergency conditions. (FT) Transfer Credit: CSU and/or private coll/univ.

112 Fundamentals of Fire Protection Chemistry
2 hours lecture, 2 units
Grade Only

**Limitation on Enrollment:** This course is not open to students with credit for FIRE 112.

This course provides students with a non-mathematical fundamental understanding of basic chemical principles including matter, energy, and chemical reactions as they apply to fire protection. The emphasis of the course will be on relating basic chemical principles to the topic of fire protection by using real world examples relevant to fire fighters working in the field. Associate Degree Credit.

113 Fire Mechanics
3 hours lecture, 3 units  
Grade Only

**Limitation on Enrollment:** This course is not open to students with credit for FIRE 156 or FIPT 156.

An introduction to the mechanics of fire apparatus, specifically fire pumpers, aerial devices and support equipment and vehicle. Discussions will be on the operation of vehicle components with emphasis placed on preventive maintenance, troubleshooting and minor repairs. There will be field trips when necessary for hands-on instruction in some areas. (FT) Transfer Credit: CSU and/or private coll/univ.

114 Shipboard Fire Control
3 hours lecture, 3 units  
Grade Only

This course provides students with the information needed for the effective use of shipboard fire fighting and rescue equipment. Included is the study of the fundamentals of marine construction, fires or emergency operating procedures at piers or on small pleasure craft, on small commercial boats, large commercial vessels, cruise ships, military vessels, or military sealift command vessels. Also included in the course will be the study of post-accident procedures, shipboard fire communications, pre-planning techniques, accident investigation, analysis of factors common to vessel emergencies, and the legal aspects of shipboard rescue and fire protection. Transfer Credit: CSU and/or private coll/univ.

115 Low Angle Rescue
16 hours lab (total), 0.5 unit  
Grade Only

**Prerequisite:** Fire Protection Technology 100A with a grade of “C” or better, or equivalent.

**Limitation on Enrollment:** This course is not open to students with credit for FIRE 115.

This is a California Fire Training and Education System course designed to equip the student with the information, techniques, and methods for utilizing rope, webbing, hardware friction devices, and litters in the low angle rescue situations. Areas covered include: Rappelling; Rope and Related Equipment; Anchor Systems; Safety Lines; Stretcher Lashing and Rigging; Mechanical Advantage Systems and Single Line/Tow Line Rescue Systems. (FT) Associate Degree Credit.

119 Aircraft Fire Control
3 hours lecture, 3 units  
Grade Only

This course provides the student with a fundamental knowledge of the factors affecting operating procedures for fire and other emergencies at airports or other locations involving private, commercial passenger, or military aircraft. Pre-planning techniques, emergency standby procedures, analysis of factors common to emergencies involving aircraft on land or water, post-accident investigations, emergency procedures, aircraft accident reports, and legal aspects of aircraft rescue and fire protection are studied. Transfer Credit: CSU and/or private coll/univ.

121 Vertical Rescue
1 hour lecture, 2 hours lab  
(40 total instructional hours), 2 units  
Grade Only

**Prerequisite:** Fire Protection Technology 100A and 100B, each with a grade of “C” or better, or equivalent.

**Limitation on Enrollment:** This course is not open to students with credit for FIRE 121.

Course involves instruction in advanced training of the uses, terminology, care and maintenance, and equipment choices in the current methods of
rappelling, cliff rescue, raising and lowering victims, and high-rise rope rescue. This hands-on course with students performing with the equipment at various locations in the community. (FT) Transfer Credit: CSU and/or private coll/univ.

**130 Emergency Medical Technician-State Fire Marshal**

5 hours lecture, 3 hours lab, 6 units  
Grade Only

*Advisory:* English 56 with a grade of "C" or better, or equivalent, or Assessment Skill Level R5.

*Limitation on Enrollment:* This course is not open to students with previous credit for FIRE 102 Health and Safety. Students must have Basic Life Saving (BLS) for Healthcare Provider certificate.

(Eighty-seven and one-half total lecture hours, fifty-two and one-half total lab hours). This Emergency Medical Technician-1 Training and Certification program is designed to prepare fire science and other public safety personnel to render basic life support to the sick and/or injured in the pre-hospital environment. The course content meets the requirements as set forth by the State of California Emergency Medical Services and the California Health and Safety Code, Section 1797.173 CAC, T-22, Chapter 2, 100060(b). Upon successful completion, the student is eligible to take the California State Fire Marshal Emergency Medical Technician-1 Certification Examination. (FT) Transfer Credit: CSU and/or private coll/univ.

**138 Recertification Course for State Fire Marshal EMT-1**

14 hours lecture (total), 18 hours lab (total)  
(32 total instructional hours) 1 unit  
Grade Only

*Prerequisite:* Emergency Medical Technician 105 or FIPT 130 with a grade of "C" or better, or equivalent.

*Limitation on Enrollment:* The student must be at least 18 years of age and currently certified/licensed as an EMT- Paramedic in California or previously certified/licensed as an EMT- Paramedic or EMT-II in California or possess or have possessed a valid out-of-state or National Registry EMT- Intermediate or EMT- Paramedic certificate or possess a valid out-of-state National Registry EMT-1 certificate or one that has not been expired for more than four (4) years and completed training equivalent to the DOT EMT National standard. The student must possess a current BLS-C certification (per California State Law Title 22). This course is not open to students with credit for FIRE 138 or 238.

This 32-hour non-associate degree lecture/lab course recertifies the student as a State Fire Marshal certified Emergency Medical Technician-1. The course updates the student in new technology, methods and protocols in emergency prehospital care by reviewing basic principles and skills of emergency medical care included in the curriculum of the basic State Fire Marshal Emergency Medical Technician-1 course. Course accreditation is with the Office of the State Fire Marshal. This course may be taken as many times as needed for certification as mandated by the State of California Emergency Medical Services Authority. (FT) Credit for this course does not apply to the associate degree.

**160 Introduction to Open Water Lifeguarding**

2 hours lecture, 3 hours lab, 3 units  
Grade Only

*Prerequisite:* Passing the minimum swimming standard as established by the City San Diego Lifeguard Service. This is an introductory level course involving lecture and manipulative training for those aspiring to be lifeguards for ocean and inland beaches. Subject matter ranges from the history of lifeguarding and the responsibility of the individual lifeguard to the hands on skills required to rescue and assist the public. Content of the course will follow the standards of the United States Lifesaving Association. (FT) Associate Degree Credit.

**160R Refresher, Open Water Lifeguard**

12 hours lecture (total), 4 hours lab  
Credit/No Credit Only

*Prerequisite:* Fire Protection Technology 160 and 309A, each with a grade of "C" or better, or equivalent.

This refresher course covers the basic skills of returning lifeguards and builds on those skills in preparation for the upcoming season. The course will also cover requirements for the recertification of lifeguards in Open Water Emergency Medical training.

**161 Inflatable Rescue Boat Operations**

16 hours lecture, 24 hours lab, 1.5 units  
Grade Only

*Prerequisite:* Fire Protection Technology 160, Introduction to Open Water Lifeguarding, with a grade of "C" or better, or equivalent.

*Limitation on Enrollment:* To be eligible for this class, students must pass a San Diego City Lifeguard Service swim test, 500-meter swim in ten (10) minutes or less, and be employed as an ocean lifeguard or have a need to operate an IRB in the surf.

This is a 40-hour introductory level course involving lecture and manipulative training for open water lifeguards aspiring to learn about the Inflatable Rescue Boat (IRB). Subject matter ranges from classroom material such as the history of the IRB and basic
terminology to hands-on skills required to crew and operate the IRB. Students will be required to participate in drills involving surf rescue applications of the IRB. (FT) Associate Degree Credit.

162 Seamanship - Rescue Boat Handling  
16 hours lecture, 24 hours lab, 1.5 units  
Grade Only

Prerequisite: Fire Protection Technology 160, Introduction to Open Water Lifeguarding.  
Limitation on Enrollment: To be eligible for this class, students must pass a San Diego City Lifeguard Service swim test, 500-meter swim in ten (10) minutes or less, and be employed as an ocean lifeguard or have a need to operate a rescue boat.

This is a 40-hour California Department of Boating and Waterways course involving lecture and manipulative training in the proper handling of an emergency rescue boat under varying conditions. These conditions would include emergency response operations, towing, offshore operations, and search and rescue. (FT) Associate Degree Credit.

163 Personal Watercraft Operations  
16 hours lecture (total), 24 hours lab (total), 1.5 units  
Grade Only

Prerequisite: Fire Protection Technology 160, Introduction to Open Water Lifeguarding with a grade of “C” or better, or equivalent.

This is a course to train open water lifeguards in the operation and crew responsibilities of the Personal Water Craft vessel. The class is a lecture and laboratory format with subject matter ranging from terminology, maintenance, historical background, and operation of the boat known as the Personal Water Craft. (FT) Associate Degree Credit.

164 Marine Firefighting  
16 hours lecture (total), 24 hours lab (total), 1.5 units  
Grade Only

Limitation on Enrollment: Students must have passed the San Diego Regional Lifeguard Training program and be employed as ocean lifeguards or the equivalent.

This 40-hour California Department of Boating and Waterways course involves lecture and manipulative training designed to give students first-hand knowledge of the hazards of marine fire fighting. Students receive the basic information from lectures and the experience of actual conditions from fighting fires under controlled conditions. (FT) Transfer Credit: CSU and/or private coll/univ.

167A Scuba for Emergency Services I  
1 hour lecture, 3 hours lab, 2 units  
Grade Only

Students with open-water lifeguard experience learn how to use the Self-Contained Underwater Breathing Apparatus (SCUBA). Students also learn about scuba history, equipment, physics, physiology, environment, and safety. Students experience six pool training sessions and six open-water scuba dives. (FT) Transfer Credit: CSU and/or private coll/univ.

167B Scuba for Emergency Services II  
.5 hours lecture, 2 hours lab, 1 units  
Grade Only

Students with open-water lifeguard and Self-Contained Underwater Breathing Apparatus (SCUBA) experience (Scuba for Emergency Services I training or equivalent) learn how to become part of a dive rescue team. Students also learn about advanced search and rescue theory, evidence handling, information gathering, and treatment of divers needing medical aid. Students experience one pool-dive training session and six open-water scuba dives. (FT) Transfer Credit: CSU and/or private coll/univ.

200A Fire Command IA  
2 hours, 2 units  
Grade Only

Limitation on Enrollment: This course is not open to students with credit for FIRE 222A or FIPT 222A.

This course provides the fire company officer with information and experience in command and control techniques at the scene of an emergency. The course provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment, pre-planning fire problems, and extinguishing agents on the fire ground. This course reviews fire chemistry, methods of fire attack, and basic fire fighting tactics and strategy. (FT) Associate Degree Credit.

200B Fire Command IB  
2 hours, 2 units  
Grade Only

Prerequisite: Fire Protection Technology 200A with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with credit for FIRE 222B or FIPT 222B.

This course provides an in-depth analysis of the tactics and strategies and scene management principles for incidents involving hazardous materials. The course includes areas of discussion on identification and hazard mitigation, decontamination, protective clothing, environmental concerns and legal issues. (FT) Transfer Credit: CSU and/or private coll/univ.
201 Fire Management I
2 hours, 2 units
Grade Only

\textit{Limitation on Enrollment}: This course is not open to students with credit for FIRE 229 or FIPT 229. This course is to prepare or enhance the first line supervisor’s ability to supervise subordinates. It introduces key management concepts and practices utilized in the California Fire Service. The course includes discussions about decision making, time management, leadership styles, personnel evaluations, and counseling guidelines. (FT) Associate Degree Credit.

202A Fire Prevention IA
2 hours, 2 units
Grade Only

\textit{Limitation on Enrollment}: This course is not open to students with credit for FIRE 227 or FIPT 227. This course provides a broad, technical overview of fire prevention codes and ordinances, inspection practices, and key hazards. Some areas of discussion include flammable and combustible liquids and gases, explosives, fireworks, extinguishing systems, and others. This course is part of the California State Fire Academy curriculum. (FT) Transfer Credit: CSU and/or private coll/univ.

202B Fire Prevention IB
2 hours, 2 units
Grade Only

\textit{Prerequisite}: Fire Protection Technology 202A with a grade of “C” or better, or equivalent. 

\textit{Limitation on Enrollment}: This course is not open to students with credit for FIRE 228 or FIPT 228. This course focuses on the codes and statutes that pertain to fire prevention practices in California. Some of the topics of discussion include building construction and occupancy, evacuation procedure, inspection reports, and processing plans. This course is part of the California State Fire Academy curriculum. (FT) Transfer Credit: CSU and/or private coll/univ.

202C Fire Prevention IC
2 hours, 2 units
Grade Only

\textit{Prerequisite}: Fire Protection Technology 202A and Fire Protection 202B with a grade of “C” or better, or equivalent. 

\textit{Limitation on Enrollment}: This course is not open to students with credit for FIRE 248 or FIPT 248. This course focuses on the special hazards associated with flammable and combustible liquids and gases. Topics of discussion will include: bulk handling and storage, transportation of flammable gases and liquids, regional and national codes, specialized inspection training, and methods of control and enforcement. This course is part of the California Fire Marshal’s Training and Education Curriculum for Fire Prevention Officer. (FT) Transfer Credit: CSU and/or private coll/univ.

203A Fire Investigation IA
2 hours, 2 units
Grade Only

\textit{Limitation on Enrollment}: This course is not open to students with credit for FIRE 224 or FIPT 224. This course is an introduction to arson investigation. This is an intensive course in the principles of determining fire cause, recognizing and preserving evidence, interviewing witnesses and suspects, arrest and detention procedures, court procedures, and giving court testimony. This course is part of the California State Fire Academy curriculum. (FT) Transfer Credit: CSU and/or private coll/univ.

203B Fire Investigation IB
2 hours, 2 units
Grade Only

\textit{Prerequisite}: Fire Protection Technology 203A with a grade of “C” or better, or equivalent. 

\textit{Limitation on Enrollment}: This course is not open to students with credit for FIRE 244 or FIPT 244. This course provides the participants with information to achieve a deeper understanding of fire investigation. It builds on Investigation IA and adds topics of discussion including the juvenile fire setter, report writing, and evidence collection and preservation procedures. This course is part of the California State Fire Academy curriculum. (FT) Transfer Credit: CSU and/or private coll/univ.

204A Instructor Training IA
2 hours, 2 units
Grade Only

\textit{Limitation on Enrollment}: This course is not open to students with credit for FIRE 225 or FIPT 225. This course is designed to prepare personnel who have a responsibility for fire service training within their departments or who wish credentialing for teaching in community college fire technology courses. The course covers identification of training needs, identification of course objectives and content, establishment of levels of instruction, measurable student objectives, development of levels of instruction, the psychology of learning, and the evaluation of effectiveness. (FT) Transfer Credit: CSU and/or private coll/univ.
204B Instructor Training IB

2 hours, 2 units
Grade Only

Limitation on Enrollment: This course is not open to students with credit for FIRE 226 or FIPT 226. This course is designed to prepare personnel who have a responsibility for fire service training within their department, or who wish instruction for teaching in community college Fire Technology courses. This course covers identification of training needs, establishment or identification of course objectives and content, establishment of levels of instruction, measurable student objectives, development of technical lesson plans, and teaching technical subjects. This is part of the California State Fire Academy curriculum. (FT) Transfer Credit: CSU and/or private coll/univ.

205 Public Education I

2 hours, 2 units
Grade Only

Limitation on Enrollment: This course is not open to students with credit for FIRE 251 or FIPT 251. This is a California State Fire Marshal course with the key topics being systematic planning process for public education; use of CFIRS to analyze local fire problems; communication skills; program evaluation; working with the media; integrating programs into school; gaining community support; fire safety for children; interviewing and counseling juvenile fire setters; creating and using audio/visual resources; and idea and resource sharing. (FT) Transfer Credit: CSU and/or private coll/univ.

210A Driver Operator - Driving

30 total hours lecture, 6 total hours lab, 2 units
Grade Only

Limitation on Enrollment: This course is not open to students with credit for FIRE 110 or 210A. Designed to meet the technical and driving requirements as established by the State Fire Marshal for fire emergency vehicles. Topics include: State code requirements for emergency vehicles, fire apparatus specifications and design, construction features, performance factors, basic inspection and maintenance of fire apparatus, and driving and placement exercises of pumpers. (FT) Transfer Credit: CSU and/or private coll/univ.

210B Driver Operator - Pumping

30 total hours lecture, 6 total hours lab, 2 units
Grade Only

Limitation on Enrollment: This course is not open to students with credit for FIRE 110 or 210B.

239A Current Issues and Skills Update for EMT-1NA/FS

9 total hours lecture, 7 total hours lab, 0.5 units
Grade Only

Prerequisite: Emergency Medical Technician 105 or Fire Protection Technology 130, each with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with credit for FIRE 239A. This first course is designed to introduce the firefighting student to the role and responsibility as a professional EMT/first responder at the basic life support level. Curriculum will inform the student on trends, technology and methods of application of techniques used in the field as a firefighter EMT/first responder in an area serviced by an advanced life support (ALS) pre-hospital emergency medical service program. An update on scope of practice, protocols and basic skills will be included. This course in conjunction with FS 239B will qualify the student to take the EMT-1NFS Recertification Exam through the California State Fire Marshal's office. This course may be repeated as necessary to meet a legally mandated training requirement as a condition of continued or volunteer employment. Credit units earned in this course will not apply to the associate degree.

239B Current Issues and Skills Update for EMT-1NA/FS

9 total hours lecture, 11 total hours lab, 0.5 unit
Grade Only

Prerequisite: Fire Protection Technology 239A with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with credit for FIRE 239B. This second course is designed for the professional firefighter/EMT first responder to maintain proficiency at the basic life support (BLS) level. Curriculum will keep the student current in changes, trends, technology and methods of application of techniques used in the field as a firefighter EMT/first responder to an advanced life support (ALS) pre-hospital emergency medical service program. Update in scope of practice, protocols, and basic skills will be included. This course in conjunction with FS 238 meets the requirements as set by the California State Fire Marshal for recertification as an EMT-1NA/FS. Upon successful completion, the
student is eligible to take the EMT-1NA/FS Recertification Exam. This course may be repeated as necessary to meet a legally mandated training requirement as a condition of continued or volunteer employment. Credit units earned in this course will not apply to the associate degree.

243 Rescue Systems I - Fundamentals of Heavy Rescue

1 hour lecture, 1.5 hours lab, 1.5 units

Grade Only

Prerequisite: Fire Protection Technology 380F or 381F with a grade of “C” or better, or equivalent, or a basic P.O.S.T. Academy.

Limitation on Enrollment: This course is not open to students with credit for FIRE 243.

This course is intended for the training of fire service and other emergency personnel in heavy rescue techniques, to include: Use of rescue equipment; Constructing rescue systems; Packaging rescuers; Rappelling; Spar lashing and use; Gin pole construction and use; A-Frame, tripod and block and tackle systems construction and use; Cribbing and wedges, shores construction and use; and Rescue scene management. (FT) Transfer Degree Credit: CSU.

247 Refresher, Rescue Systems I

0.25 lecture hour, 0.75 lab hour, 0.5 unit

Grade Only

Prerequisite: Fire Protection Technology 243 with a grade of “C” or better, or equivalent.

This 16 hour course enables students who have taken Rescue Systems I to review and update information pertaining to rescue operations which often follow earthquakes, flooding, and other large scale emergencies. The review of the hands-on operation of specialized rigging systems, rescue drills and saws, working in confined spaces, and the removal of victims is required to maintain a suitable skill level. (FT) Transfer Credit: CSU and/or private coll/univ.

249 Rescue Systems II

1 hour lecture (16 total hours), 1.5 hours lab (24 total hours lab), 1.5 units

Grade Only

Prerequisite: Fire Protection Technology 243 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with credit for FIRE 249.

This course is designed to build and expand the knowledge and skills of Rescue Systems I. Training will focus on developing teams of rescue workers to operate at the more difficult situations that occur following earthquakes, flooding, and other large scale emergencies. Much of the course content will include information and recommendations coming from agencies involved in the San Francisco earthquake of 1989, the 1993 floods, and the Los Angeles quake of 1994. (FT) Transfer Credit: CSU and/or private coll/univ.

253 Heavy Rescue Instructor Training

16 total hours lecture, 20 total hours lab, 1.5 units

Grade Only

Prerequisite: Fire Protection Technology 243 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with credit for FIRE 253.

This is a training course for the training of instructors to teach courses at a Heavy Rescue Facility as typified by the Miramar College facility at Camp Elliott. This specialized training includes the normal techniques of instruction as well as methods to simulate unusual situations encountered following earthquakes, flooding, and other large scale emergencies. (FT) Transfer Credit: CSU and/or private coll/univ.

254 EMT-1 Instructor Update

8 hours total, 0.5 unit

Grade Only

Prerequisite: Emergency Medical Technician 105 or Fire Protection Technology 130 with a grade of “C” or better, or equivalent.

Limitation on Enrollment: This course is not open to students with credit for FIRE 254.

This is an 8-hour course mandated by the Office of the State Fire Marshal for all EMT-1, State Fire Marshal registered instructors. Course will provide instructors with the changes that have recently been adopted by the national emergency medical professional organizations and the California legislature. Associate Degree Credit.

255 Instructor Orientation, State Fire Marshal

8 total hours total, 0.5 unit

Grade Only

Limitation on Enrollment: This course is not open to students with credit for FIRE 255 or 265: Instructor Orientation, State Fire Marshal.

This course is mandatory for instructors’ eligibility to teach California Fire Marshal courses in community colleges. The instructor orientation is designed to prepare instructors to deliver the following Level 1 regional programs: Fire Command 1A & B, Fire Investigation 1A & 1B, Fire Management 1, Fire Prevention 1A, 1B & 1C, Driver Operator 1A & 1B, and Public Education 1. Topics of discussion include overview of CFSTES, instructor accreditation requirements, how to set up and return course
paperwork, certification tracts, instructor responsibilities and curriculum development. Transfer Credit: CSU and/or private coll/uni.

256 Fire Command 2D Planning for Large Scale Disasters

40 hours lecture (total), 2 units
Grade Only

Limitation on Enrollment: This course is not open to students with credit for FIRE 256.
Instruction in this course is designed for fire officers and others training for incident command leadership. Course involves the history, components, management principles, and operational techniques required for the implementation of a command system for large scale disasters: earthquakes, floods, and conflagrations. (FT) Transfer Credit: CSU and/or private coll/uni.

260 Advanced Open Water Lifeguard Training

80 hours lecture (total), 110 hours lab (total), 6.5 units
Credit/No Credit Only

Limitation on Enrollment: Students must be sponsored by a San Diego Regional Lifeguard agency. This is an advanced level course for current seasonal lifeguards to be trained to qualify for year-around positions. Course content follows the standards of the United States Lifesaving Association. (FT) Associate Degree Credit.

270 Work Experience

Hours by Arrangement; 1-4 units
Grade Only

Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, including work experience. Supervised on-the-job training in agencies engaged directly in fire protection (such as fire suppression, prevention, administration, services-operations or insurance) which contributes to the student's career objectives. The combined maximum credit for all work experience courses from all disciplines may not exceed 16 units. (FT) Transfer Credit: CSU and/or private coll/uni.

300C Fire Command 2C, High Rise Fire Tactics

2 hours lecture, 2 units
Grade Only

Prerequisite: Fire Command 2A.
This 40-hour course is for chief and company officers and covers the techniques of using a systems approach as applied to fighting fires in both small and large high rise structures and is applicable to both large and small fire departments. Topics include prefire planning, building inventory, problem identification, ventilation methods, water supply, elevators, life safety, strategy and tactics, application of the Incident Command System, and specific responsibilities of officers. Case studies and simulation are used. Upon successful completion, the student will receive a State Fire Marshal course completion certificate which applies to the Chief Officer Certification. (FT) Associate Degree Credit.

300E Fire Command 2E, Wildland Fire Tactics

2 hours lecture, 2 units
Grade Only

This 40-hour course is for fire officers and others training for incident command leadership. This course includes California's wildland fire problems, wildland fire safety, weather effects, wildland fuels, wildland fire behavior, initial attack methods, strategy and tactics, and air attack operations. This course involves class participation and fire simulation. (FT) Associate Degree Credit.

301L Fire Company Officer Training

32 hours lecture (total), 24 hours lab (total), 2.5 units
Grade Only

This course prepares or enhances the first line supervisor's ability to supervise subordinates. It introduces key management concepts and practices utilized in the California Fire Service. The course includes discussions about the role of the Company Officer, oral and written communications, decision-making, time management, leadership styles, personnel evaluations, Emergency Scene Incident Command, operational responsibilities, discipline and counseling guidelines. (FT)

301M C.D.F. Company Officer Academy

30 hours lecture, 15 hours lab, 2 units
Grade Only

This course is designed for California Department of Forestry personnel from Firefighter to Unit Chief. This course meets State and federal guidelines for recertification of various skills. It also incorporates those requirements for OSHA and CAL/OSHA regarding safety and documentation. This course is designed to help refresh employees in various subject material such as: Hazardous Materials, Equal Employment Opportunity, Fire Tactics and Strategy, Environmental Hazards, Administration, Accountability, Incident Command System, Emergency Medical Care, and Rescue. This course may be repeated as necessary to meet a legally mandated training requirement as a condition of employment or volunteer employment.
303C Current Issues in Fire Technology Criminal & Legal Procedures

40 lecture hours, 1 unit

Grade Only

Prerequisite: FIPT 203B with a grade of “C” or better, or equivalent.

This course provides the participants with information to build the necessary skills to successfully investigate, apprehend and convict arsonists. This course also focuses heavily on the legal preparation required to develop a court case. Topics include interviewing and interrogating suspects, search and seizure, search warrants, courtroom demeanor, and working with the district attorney’s office. This course is designed to prepare participants for the courtroom. Associate Degree Credit.

303D Current Issues in Fire Technology Training, Field Case Studies

40 lecture hours, 1 unit

Grade Only

Prerequisite: Investigation 2A, Criminal and Legal Procedures.

This course provides advanced instruction in fire scene investigation, case preparation, and courtroom presentation. Topics include: fire scene photography, sketching, evidence collection, interviewing and interrogation, and extensive use of simulations for developing and presenting an arson case. (FT) Associate Degree Credit.

304A Train the Trainer, Confined Space Operations

10 lecture hours (total), 22 lab hours (total)

0.5 unit

Grade Only

Prerequisite: Fire Protection Technology 308A, Confined Space Operations with a grade of “C” or better, or equivalent.

A 32-hour course to prepare “Confined Space” trained personnel to instruct others in “Confined Space Operations.” Instructional methods, demonstration procedures, operational safety factors, development of training scenarios, instructional resource use and management, motivational strategies, evaluation methods, and requirements for record keeping will be included in the course to meet the recommendations of the California State Fire Marshal’s curriculum and the United States Urban Rescue Teams of the United States Fire Administration. (FT) Associate Degree Credit.

306A Haz Mat Emergency Response First Responder Operational

0.75 hour lecture, 0.25 hour lab, 1 unit

Grade Only

This course provides the students with a fundamental knowledge of the factors affecting operating procedures at a Hazardous Material Incident. This course will improve the capabilities of the first responder to respond to a Haz Mat event in a safe and competent manner, within the typical resource and capability limits at the “operational” level. This course meets the First Responder Operational Haz Mat Emergency Response certified course requirements of California Code of Regulations (CCR) Title 19, Division 2, Chapter 1, Subchapter 2, Sections 2510-2560. (FT) Associate Degree Credit.

308A Confined Space Operations

0.5 hours lecture, 1.5 hours lab, 1 unit

Grade Only

Prerequisite: Fire Protection Technology 243, Rescue Systems I – Fundamentals of Heavy Lifting, with a grade of “C” or better, or equivalent.

This is an advanced level of the Rescue Systems Courses with the focus of removing victims trapped in exceedingly difficult and/or large scale entrapments which will require specialized equipment and operating procedures. Emphasis is on the history, philosophy, organization and operation of a confined space rescue, code reference, identification and correction of confined space rescue hazards, and the relationship of fire rescue safety education and monitoring systems. (FT) Associate Degree Credit.

308B Current Special Issues (Confined Space Awareness)

8 hours lecture (total), 0.5 unit

Grade Only

This course is designed for personnel with confined spaces within their areas of responsibility. Students are introduced to the hazards, equipment, and operational positions of safe and legal confined space entry. This course also includes a review of CAL/OSHA regulations with regard to Permit-Required Confined Space. (FT) Associate Degree Credit.

309A Emergency Medical Care of the Sick and Injured

1 hours lecture, 1.5 hours lab, 1.5 units

Grade Only

Students learn the emergency medical skills needed by public safety personnel. Topics include emergency care procedures such as examining the victim, observing
surroundings, determining case histories, maintaining an airway, performing resuscitation and cardiopulmonary resuscitation, controlling bleeding, and treating cerebrovascular injuries, shock, and seizures. Students also learn about childbirth, manual lifts and carries, and improvising and providing transportation. This course meets present public safety emergency care requirements. (FT) Associate Degree Credit.

309R Refresher, Emergency Medical Aid
0.5 hours lecture, 1.5 hours lab, 1 unit
Credit/No Credit Only

Prerequisite: Fire Protection Technology 309A with a grade of “C” or better, or equivalent. This refresher course for public safety personnel updates and refines emergency medical skills. Students review emergency medical care procedures including examining the victim, observing surroundings, maintaining an airway, performing resuscitation and cardiopulmonary resuscitation, controlling bleeding, treating shock and seizures, assisting with childbirth emergencies, performing manual lifts and carries, and preparing patients for transportation. This course meets present public safety emergency care refresher requirements only. (FT) Associate Degree Credit.

310A Basic Incident Command System I-200
1 hour lecture, 1 unit
Grade Only

This course is designed for all emergency response personnel (police, fire, and EMS). This course consists of the Incident Command System (ICS) Modules 2 - 6 and meets the training needs of wildland fire personnel and other emergency response personnel. Participants are introduced to the principles associated with the ICS and Standardized Emergency Management System (SEMS). Topics provide an introduction to and overview of the ICS. The topics also introduce the participant to the interagency incident management system being adopted by the fire service and emergency response organizations across the country. (FT) Associate Degree Credit.

310B Intermediate Incident Command System I-300 Standardized Emergency Management System
16-26 hours lecture, 0.5 - 1 unit
Grade Only

Prerequisite: Basic Incident Command System I-200 or F IPT 310A, with a grade of “C” or better, or equivalent. This course is for all emergency response personnel, as defined in Governmental Code 58607. This course consists of Modules 7-11 and expands on the Basic Incident Command System (ICS) and Standardized Emergency Management System (SEMS) by providing more description and detail of the organization and operation of the ICS. Topics include management of resources, duties of all positions, and examples of how the essential principles are used in incident or event planning. (FT) Associate Degree Credit.

310C Advanced Incident Command System I-400 Standardized Emergency Management System
1 hour lecture, 1 unit
Grade Only

Prerequisite: Intermediate Incident Command System I-300 or F IPT 310B, with a grade of “C” or better, or equivalent. This course is for all emergency personnel (police, fire, and EMS). This course consists of Modules 12-15 and expands on the Intermediate Command System (ICS) and Standardized Emergency Management System (SEMS) by providing more description and detail of the organization and operation of the ICS. Topics include large scale organization development, roles and relationships of primary staff, considerations related to large and complex incident or event management, area command, and the importance of interagency coordination. (FT) Associate Degree Credit.

310E Strike Team Leader-Engine I-334
1 hour lecture, 1 unit
Grade Only

This 12 - 16 hour orients the participant to the basic responsibilities of an Engine Strike Team Leader. Subjects covered include strike team concept, types of strike teams, pre-incident responsibilities, assembly and travel, incident arrival and check-in, assigned/available status, out-of-service and demobilization/release. (FT) Associate Degree credit.

310F Division/Group Supervisor I-339
16 hours lecture, 1 unit
Grade Only

This course covers the aspects of the management skills necessary to fill the position of Division/Group Supervisor within the framework of the Incident Command System. The course references wildland fire tactics and strategies to exemplify management and supervision techniques, but the techniques may be utilized at other emergency incidents. (FT) Credit for the course does not apply to the associate degree.
310G Incident Safety Officer S-401
8 hours lecture, 16 hours lab, 1 unit
Grade Only
This 24 hour course delivers information needed to operate in the position of Safety Officer within the Incident Command System at a large scale incident. This course fulfills the training needs of wildland fire personnel, police, EMS, and other emergency response personnel. (FT) Associate Degree Credit.

310J Fire Operations in the Urban Interface S-205
8 hours lecture (total), 24 hours lab (total), 1 unit
Grade Only
This is a 24-32 hour course designed to meet the training needs for initial attack incident commanders and company officers confronting wildland fire that threatens life, property, and improvements. Wildland Urban Interface is a zone where man-made improvements intermix with wildland fuels. (FT) Associate Degree Credit.

310K Basic Air Operations S-270
1 hour lecture, 1 unit
Grade Only
This 16-hour course is designed to meet the training needs for personnel who may be exposed to any aircraft. Emphasis is placed on the basic knowledge the student needs to function safely around aircraft used in fire suppression. This course is required training for those personnel serving at the single resource boss level and higher in the operations section under the Incident Command System (ICS). Basic Air Operations was developed under the direction of the National Wildfire Coordination Group (NWCG) and meets all requirements as prescribed by the National Interagency Incident Management System (NIIMS). (FT) Associate Degree Credit.

310L Leadership and Organizational Development SH-301
12 hours lecture, 12 hours lab, 1 unit
Grade Only
This 24-hour course provides the trainee with the communication and supervision skills necessary to perform as a unit leader on a wildland fire. This course presents the selected communication and supervision techniques and concepts which apply to incident management. The student learns these skills through a pre-course assignment and classroom discussions, group activities, brainstorming, role playing, and problem solving. Associate Degree Credit.

310M Fire Suppression Tactics S-336
2 hours lecture, 2 units
Grade Only
Fire Suppression Tactics is a 32-hour course meeting the training requirements outlined in the Operations Section of the Incident Command System. This course is designed primarily to instruct experienced single resource bosses and initial attack incident commanders in the wildland fire fighting tactics necessary at the strike team leader or task force leader level. This course is also recommended for operations supervisors qualified at higher management levels who have not received training in wildfire suppression tactics. (FT) Associate Degree Credit.

310N Intermediate Air Operations S-370
2 hours lecture, 2 units
Credit/No Credit Only
This is a 32-hour course to meet the training needs of personnel who may be exposed to any aircraft. Emphasis is placed on the intermediate knowledge the student needs to function safely around aircraft used in fire suppression. This course is required training for those personnel serving at the single resource boss level and higher in the operations section under the Incident Command System (ICS). Intermediate Air Operations was developed under the direction of the National Wildfire Coordination Group (NWCG) and meets all requirements as prescribed by the National Interagency Incident Management System (NIMS). Associate Degree Credit. (FT)

310S Operations Section Chief I-430
28 hours lecture, 12 hours lab, 3 units
Credit/No Credit
The primary purpose of this course is to provide the student with the management skills needed to perform a specific function within the Incident Command system. This course will present the selected communication and supervision techniques and concepts which apply to incident management. The student will learn these skills through a pre-course assignment and classroom discussions, group activities, brainstorming, role playing, and problem solving. The student is expected to have the appropriate tactical background and demonstrated skills before taking the class. (FT) Associate Degree Credit.

311M Swiftwater Rescue Technician I
8 hours lecture, 24 hours lab, 1 unit
This course is an intensive three-day, 30-hour training session. It has one day of classroom instruction followed by two days of developing and practicing...
water rescue skills. The initial emphasis is on developing self-rescue skills in swift moving water. Other objectives include an in-depth look at such subjects as: understanding water dynamics, handling hazards and obstacles, using basic rescue equipment, setting up technical rope systems, and controlling in-water contact rescue. (FT) Associate Degree Credit.

380F Basic Fire Academy I
298 lecture and 262 hours lab (total), 15 units
Grade Only

Prerequisite: Completion of Fire Technology X65 Academy Testing.

An instruction program of firefighter orientation involving classroom instruction and manipulative training. Designed to introduce the student to the role of the fire service in society. Meets requirements of California State Board of Fire Technology/Certified Firefighter I training. (FT) Transfer Credit: CSU and/or private coll/univ.

380W Basic Wildland Firefighter Academy
2 hours lecture, 1.5 hours lab, 2.5 units
Grade Only

This 67-hour Wildland Firefighter I basic academy course introduces the student to the basic knowledge of wildland fire control and teaches how to perform the tasks of wildland firefighters safely and efficiently. (FT) Associate Degree Credit.

381F Basic Fire Academy
13 hours lecture, 27 hours lab, 9 units
Grade Only

Prerequisite: Emergency Medical Technician I current certificate; Fire Protection Technology 101 and Fire Protection Technology 105, each with a grade of “C” or better, or equivalent; and pass a NFPA 1582 Standards Medical Examination.

This course provides students with the theory, techniques and psychomotor skills needed to be firefighters. This course is designed to introduce the student to the role of the fire service in society. The emphasis of the course will be on meeting the requirements of the California State Board of Fire Services certified firefighter I training. (FT) Transfer Credit: CSU and/or private coll/univ.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172.

Please refer to the class schedule and/or see the dean or department chair for availability.

GEOGRAPHY (GEOG)

101 Physical Geography
3 hours, 3 units

Advisory: English 51 and English 56, with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5.

Geography 101 may not be used toward a social science major if used to satisfy science requirements.

The major world patterns of physical environment. Fundamental information and processes dealing with the earth’s landforms, atmosphere, climate, natural vegetation, water, and soils with appropriate use of maps and charts. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN GEOG 2) (CAN GEOG 6 = GEOG 101 + 101L)

101L Physical Geography Laboratory
3 hours, 1 unit

Corequisite: Completion of or concurrent enrollment in Geography 101

Advisory: Mathematics 32 with a grade of “C” or better, or equivalent, or Assessment Skill Level M20; and English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5.

Practical observations and applications of the geographic grid atlases and topographical maps, weather and climate, natural vegetation and soils, and land forms. Exercises designed to supplement Physical Geography 101. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN GEOG 2) (CAN GEOG 6 = GEOG 101 + 101L)

102 Cultural Geography
3 hours, 3 units

Advisory: English 101 or English 105 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W6 and R6.

This course is an introduction to thematic cultural geography. The elements covered include population, race, language, religion, settlement patterns, political organization, economic activities, industry, and the regional distribution of these elements. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN GEOG 4)

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and
Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

### GEOLOGY (GEOL)

#### 100 General Geology

**3 hours lecture, 3 units**

**Advisory:** English 56 with a grade of "C" or better, or equivalent, or Assessment Skill Level R5.

This course investigates the physical characteristics of the earth as a whole, and the past, present, and future evolutionary processes affecting it. Primary topics include earth materials, geologic time, uniformitarianism, the fossil record, and plate tectonics. The course is designed for those students with a general interest in geology or earth science. (FT) Transfer Credit: CSU and/or private coll/univ; UC. (CAN GEOL 6) (CAN GEOL 2 when taken with Geology 101)

#### 101 General Geology Laboratory

**3 hours lab, 1 unit**

**Advisory:** English 56 with a grade of "C" or better, or equivalent, or Assessment Skill Level R5; and completion of or concurrent enrollment in Geology 100.

This laboratory course covers mineral and rock identification, landforms, topographic/geologic map interpretation, and geologic structures. The course is designed to supplement Geology 100 with laboratory experience. (FT) Transfer Credit: CSU and/or private coll/univ; UC. (CAN GEOL 2 when taken with Geology 100)

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

### HEALTH EDUCATION (HEAL)

#### 101 Health and Life-Style

**3 hours, 3 units**

**Advisory:** English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.

This course studies aspects of mental, emotional, and physical health. Emphasis is placed on knowledge for development of attitude, understanding, and practice of a preventive lifestyle for healthy living and optimal wellness. Specific instructional areas include chronic diseases, physical activity, nutrition, weight management, birth control methods, human sexuality, alcohol, tobacco, and illicit chemical use, stress, and factors that contribute to wellness and longevity. Experience in personal health assessment and the changing of health behaviors is stressed. Satisfies State of California Health Education requirement for teaching credential. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

#### 131 First Aid

**3 hours, 3 units**

This course satisfies the requirements of the American Red Cross and trains individuals who respond in emergency situations with the knowledge and skills necessary to help sustain life, reduce pain, and minimize the consequences of injury or sudden illness until more advanced medical help arrives. Students who successfully complete the course receive the following American Red Cross Certification: Emergency Response certification is valid for three years and CPR for the Professional Rescuer certification is valid for one year. Emergency Response certification is consistent with the U.S. Department of Transportation First Responder curriculum and exceeds the requirement of the California Health and Safety Code (Title 22). This course may be repeated as needed to update certification and skills. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

#### 190 Health Education for Teachers

**1 hour lecture, 1 unit**

**Advisory:** English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.

This course overviews health-related issues and problems in the kindergarten through 12th grade. Topic areas include Behavior modification, stress symptoms and management, physical activity, nutrition, cardiovascular disease, sexually transmitted diseases, illicit substance abuse, alcohol and nicotine use and misuse. This course satisfies the State of California Health Education requirement for the K-12 Teaching Credential. Transfer Credit: CSU and/or private coll/univ.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270).
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
<th>Units</th>
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<tbody>
<tr>
<td>105</td>
<td>Introduction to Western Civilization I</td>
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<tr>
<td>106</td>
<td>Introduction to Western Civilization II</td>
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<tr>
<td>109</td>
<td>History of the United States I</td>
<td>3</td>
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<tr>
<td>110</td>
<td>History of the United States II</td>
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<tr>
<td>120</td>
<td>Introduction to Asian Civilizations</td>
<td>3</td>
<td>3</td>
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</table>

**Advisory:** English 51 and/or English 56, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and/or R5.

**Limitation on Enrollment:** This course is not open to students with previous credit for Black Studies 112B, 140B, or History 110B.

This course, which covers the history of the United States from Reconstruction to the present, provides an overview of the diverse peoples who influenced the history of the nation and its maturing economic, social, and political institutions. The course requires students to analyze a variety of materials, think critically, and write thesis-based essays. The course is required for history majors and is recommended for transfer students. History 110 taken in conjunction with History 109, 115A, 150; Black Studies 140A; or Chicano Studies 141A satisfies the District and may satisfy CSU requirements in United States History, Constitution, and American Institutions and the requirement in California state and local government. (FT) Transfer Credit: CSU and/or private coll/univ.; UC Transfer Credit: History (HIST) 109, 110 combined with 150, 151, Black Studies 140AB or Chicano Studies 141AB: maximum credit, one series. (CAN HIST 8) (CAN HIST SEQ B = HIST 109 + 110).

**Advisory:** English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5.

This course, which covers the history of the United States from its colonial origins through the period of Reconstruction, provides an overview of the diverse peoples who interacted, settled, and influenced the history of the nation and its developing economic, social, and political institutions. The course requires students to analyze a variety of materials, think critically, and write thesis-based essays. The course is required for history majors and is recommended for transfer students. History 109 taken in conjunction with History 110, 115B, 123, 151; Black Studies 140B; Chicano Studies 141B; or Political Science 102 satisfies the District and may satisfy the CSU graduation requirements in United States History, Constitution, and American Institutions and the requirement in California state and local government. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: History (HIST) 109, 110 combined with 150, 151, Black Studies 140AB or Chicano Studies 141AB: maximum credit, one series. (CAN HIST 8) (CAN HIST SEQ B = HIST 109 + 110).
121 Asian Civilizations in Modern Times
3 hours lecture, 3 units
Grade Only

Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
This course examines the evolution of the distinct cultures, thought, and institutions in East, South, and Southeast Asia from the sixteenth century to the present through critical investigations into the impact of modernization on the political, social, economic, and cultural dimensions of these societies. Emphasis is placed on topics such as the first encounters with Western powers, the evolution of Western imperialism, the rise of nationalist movements and independent nation states, and their evolution and progress to the present. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

150 Native Americans in United States History
3 hours lecture, 3 units

Advisory: English 51 and 56, each with a grade of "C" or better, or equivalent, or W5 and R5.
This course covers the history of the United States from the Pre-contact Colonial Period to the mid-nineteenth century, with an emphasis on the history of Native American Indians, the development of United States Indian policy, and the interaction of divergent cultures. This course requires students to analyze a variety of materials, think critically, and develop thesis-based essays. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: History (HIST) 109, 110 combined with History (HIST) 150, 151, Black Studies (BLAS) 140AB or Chicano Studies (CHIC) 141AB: maximum credit, one series.

151 Native Americans in United States History
3 hours lecture, 3 units

Advisory: English 51 and 56, each with a grade of "C" or better, or equivalent, or W5 and R5.
This course covers the history of the United States from the Civil War to the present, with an emphasis on the history of Native American Indians, changing United States Indian policy, and the interaction of divergent cultures. This course requires students to analyze a variety of materials, think critically, and write thesis-based essays. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: History (HIST) 109, 110 combined with History (HIST) 150, 151, Black Studies (BLAS) 140AB or Chicano Studies (CHIC) 141AB: maximum credit, one series.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

101 Introduction to the Humanities I
3 hours, 3 units

Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
The development of an understanding and appreciation of mankind's cultural heritage from the earliest times to approximately 1500. A survey will be made of the literature, philosophy, music, painting, architecture, and sculpture of both Western and Eastern civilizations. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

102 Introduction to the Humanities II
3 hours, 3 units

Advisory: English 101 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W6 and R6.
This interdisciplinary course is designed for students interested in meeting general education requirements in humanities. The course develops students' understanding and appreciation of humankind's cultural heritage from approximately 1400CE to the present time. A survey is made of the literature, philosophy, music, painting, architecture, and sculpture of both Western and non-Western civilization. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

Humanities Religious Studies (HUMA)
(Related courses: Psychology 207, Psychology of Religion; Hebrew 101, First Course in Hebrew; Hebrew 102, Second Course in Hebrew; Hebrew 201, Third Course in Hebrew; Hebrew 202, Fourth Course in Hebrew; History 250, History of World Religions; History 165, Jewish History; Music 122, Gospel Choir.)

Humanities Interdisciplinary (HUMA)
(Related courses: German 240, German Civilization I; German 241, German Civilization II; French 240, French Civilization I; French 241, French Civilization II; Russian 240, Russian Civilization; Spanish 240, Spanish Civilization; Spanish 241, Latin American Civilization;
Speech Communications 180, Intercultural Communication; Music 125, Music, The Arts and Humanities.)

201 Mythology  
3 hours, 3 units  
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5. This course introduces students to the major images and themes of the myths of widely separated peoples of the world throughout history. By analyzing various archetypal patterns found in the great civilizations and tribal cultures of the world, students understand both the uniqueness of each culture's world view and the commonality of human mythological conceptions. Literature and the arts are used to demonstrate these cultures' mythic ideas. This course meets GE and CSU requirements. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Humanities (HUMA) 201 and 203ABC combined: maximum credit, two courses.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

101 First Course in Japanese  
5 hours, 5 units  
Advisory: English 43 with a grade of "C" or better, or equivalent, or Assessment Skill Level W4. This is an entry-level course designed to introduce students to the Japanese language and cultures of Japan. In this interactive course, students learn and use the language by speaking, listening, reading, and writing at the novice level. Basic language structures and vocabulary for communication are examined and explored in Japanese. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Humanities (JAPN) 101 and 103ABC combined: maximum credit, two courses.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

102 Second Course in Japanese  
5 hours, 5 units  
Prerequisite: Japanese 101 with a grade of "C" or better, or equivalent, or two years of high school Japanese with a grade of "C" or better, or equivalent.

This is a continuation of Japanese 101. In this interactive course, students use listening, reading, speaking and writing at a more complex level. Students further develop their receptive and productive competencies to the low- or mid-intermediate level. Additional language structures and vocabulary for communication are examined and explored in Japanese. Transfer Credit: CSU and/or private coll/univ.; UC. (CAN JAPN 4)

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

210A Journalism Workshop I  
Hours by Arrangement; 6-9 hours lab, 2-3 units  
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5. This course is designed to provide experience in the production and publication of a student newspaper. Emphasis is placed on helping beginning students gain experience in the gathering and writing of news and features. Students at this level learn the basic principles of reporting, news writing, copy editing, photography, and newspaper design and layout. Assignments focus on routine stories, and may include editorials or features such as profiles. Copy editing is limited to reading for technical errors. This class is designed for students with an interest in print media and provides instruction in the journalistic process on an entry level. Skills developed in this course include research techniques and the evaluation and analysis of information. Students are guided by ongoing advice, criticism, and evaluation from a faculty adviser. Students enrolled in the course for 2 units are expected to participate in the production of the student newspaper for at least 6 hours per week, while students enrolled for 3 units are expected to participate at least 9 hours per week and contribute more extensively to the layout and/or production of the paper. (FT) Transfer Credit: CSU and/or private coll/univ.
210B Journalism Workshop
Hours by Arrangement; 6-9 hours lab, 2-3 units
Prerequisite: Journalism 210A with a grade of “C” or better, or equivalent.
Experience in production and publication of a student newspaper accompanied by ongoing advice, criticism and evaluation from the faculty advisor. Emphasis is on planning, laying out, editing, pasting up and proofreading, but with continued experience in gathering and writing news, editorials, and in-depth stories. (FT) Transfer Credit: CSU and/or private coll/univ.

210C Journalism Workshop
Hours by Arrangement; 6-9 hours lab, 2-3 units
Prerequisite: Journalism 210B with a grade of “C” or better, or equivalent.
Experience in production and publication of a student newspaper accompanied by ongoing advice, criticism and evaluation from a faculty advisor. Emphasis is on editorial aspects of newspaper production. (FT) Transfer Credit: CSU and/or private coll/univ.

210D Journalism Workshop
Hours by Arrangement; 6-9 hours lab, 2-3 units
Prerequisite: Journalism 210C with a grade of “C” or better, or equivalent.
Experience in production and publication of student newspaper accompanied by ongoing advice, criticism, and evaluation from faculty advisor. This is an elective course that does not count toward the A.A. Degree. It is designed for those students who want to use workshop situations in which to sharpen their skills and to develop skills other than those learned in Journalism 210A, 210B, 210C. (FT) Transfer Credit: CSU and/or private coll/univ.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

50 College Learning Skills
3 hours lab, 1 unit
Corequisite: Concurrent enrollment in at least one other college course.
English for Speakers of Other Languages, basic developmental skills, and study techniques. Multimedia materials are prescribed according to student needs, as determined by diagnostic surveys and instructor conference. Students work at their own rate with scheduled conferences to monitor progress and make adjustments to the student’s education plan. Credit earned in this course will not apply to the associate degree.

100 Legal Procedures
3 units, 3 hours
Grade Only
Limitation on Enrollment: This course is not open to students with credit for Administration of Justice 105 or Business 180.
Knowledge and skills required of a legal assistant including: court structure, role of paralegals and introduction to legal writing, case analysis, and legal assistant employment. (FT) Transfer Credit: CSU and/or private coll/univ.

100A Introduction to Paralegalism
1 hours lecture, 1 unit
Grade Only
Limitation on Enrollment: This course is not open to students with previous credit for Legal Assistant 100 or Administration of Justice 105 or Business 180.
Students entering the legal assistant program learn about the paralegal’s role in the work place and legal system. Topics include the following: introduction to the professional associations, history of the profession, regulation and licensing of paralegals, legal ethics, an overview of the court structure, legal terminology, legal analysis, and an introduction to the legal specialties offered in the program. (FT) Transfer Credit: CSU and/or private coll/univ.
100B Legal Procedures  
2 hours lecture, 2 units  
Grade Only  
Advisory: Legal Assistant 100A with a grade of "C" or better, or equivalent.  
Limitation on Enrollment: This course is not open to students with previous credit for Legal Assistant 100 or Administration of Justice 105 or Business 180.  
This course provides an overview of various legal specialties offered under the legal assistant program and the job functions performed in them. Topics include an introduction to the litigation process, bankruptcy, family law, contract law, corporate law, estates, trusts and wills, federal court practices and procedures, legal communications, and legal research. Students also learn specialized legal terminology. (FT) Transfer Credit: CSU and/or private coll/univ.

105 Legal Research  
3 hours lecture, 3 units  
Grade Only  
Advisory: Legal Assistant 100B with a grade of "C" or better, or equivalent.  
Limitation on Enrollment: This course is not open to students with previous credit for Administration of Justice 107 or Business 181.  
This core course introduces students to the basics of legal research. Students receive an overview of the types of research methods used, the primary and secondary sources available, an understanding of official and unofficial opinions, a review of binding and persuasive authority, the Shepards system of validating cases and statutes, use of internet research, and an introduction to Lexis-Nexis, an online legal research system. (FT) Transfer Credit: CSU and/or private coll/univ.

110 Legal Writing & Communications  
3 hours lecture, 3 units  
Grade Only  
Advisory: Completion of or concurrent enrollment in Legal Assistant 105 with a grade of "C" or better, or equivalent.  
Limitation on Enrollment: This course is not open to students with previous credit for Administration of Justice 108 or Business 182.  
This course covers legal writing and oral communications. Students receive a thorough examination of case analysis, legal reasoning, brief writing, legal memoranda, reports, and correspondence. They also develop interpersonal skills and learn how to interface with clients. (FT) Transfer Credit: CSU and/or private coll/univ.

115 Civil Litigation I  
3 hours lecture, 3 units  
Grade Only  
Advisory: Completion of or concurrent enrollment in Legal Assistant 105 or Legal Assistant 110 with a grade of "C" or better, or equivalent.  
Limitation on Enrollment: This course is not open to students with previous credit for Administration of Justice 109 or Business 183.  
This core class introduces paralegal students to the civil litigation process. Students learn, analyze, and examine the basic principles of civil procedures as applicable to jurisdiction, venue, and preparation of pleadings in an action by both plaintiffs and defendants in the California court system. (FT) Transfer Credit: CSU and/or private coll/univ.

120 Civil Litigation II  
3 hours lecture, 3 units  
Grade Only  
Advisory: Legal Assistant 115 with a grade of "C" or better, or equivalent.  
Limitation on Enrollment: This course is not open to students with previous credit for Administration of Justice 110 or Business 184.  
This core course continues the study of the litigation process. Students utilize the exercises and legal documents prepared in Legal Assistant 115. Students receive an in-depth analysis of the rules of discovery which is the fact-finding portion of the litigation proceedings, the course emphasizes research and writing as they relate to the process of trial and settlement preparation. (FT) Transfer Credit: CSU and/or private coll/univ.

140 Law Office Management  
3 hours lecture, 3 units  
Grade Only  
Advisory: Completion of or concurrent enrollment in Legal Assistant 100B with a grade of "C" or better, or equivalent.  
Limitation on Enrollment: This course is not open to students with previous credit for Administration of Justice 111 or Business 185.  
This course introduces a legal specialty elective in the Legal Assistant program. Students study systems and procedures for administration and management of a law office. Course emphasizes file management, personnel issues, law library maintenance, computer systems, ordering supplies, financial analysis and billing, risk management, and legal ethics. (FT) Associate Degree Credit.
145 Federal Court Practices and Procedures  
3 hours lecture, 3 units  
Grade Only

Advisory: Legal Assistant 105 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Administration of Justice 112 or Business 186.

Students learn about federal court practices including criminal, civil, bankruptcy, and appellate procedures. The course emphasizes rules of practice to help students develop the skills legal assistants utilize in law offices. (FT) Transfer Credit: CSU and/or private coll/univ.

150 Criminal Litigation and Procedure  
3 hours, 3 units  
Grade Only

Advisory: Legal Assistant 100 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with credit for Administration of Justice 113 or Business 187.

The criminal court system, criminal investigation and prosecution, discovery and investigation, pretrial motions, trial preparation and procedures, and posttrial motions and relief. This course will provide students with an understanding of criminal litigation practice and procedure. (FT) Transfer Credit: CSU and/or private coll/univ.

155 Employment Law  
3 hours lecture, 3 units  
Grade Only

Advisory: Legal Assistant 105 or 110 with a grade of "C" or better, or equivalent.

This course provides an overview of the legal relationship between employer and employee. It also provides a basic understanding of employment-related laws and the impact those laws have on employers/employees. Students learn about both the federal and state regulatory environment as it applies to employment law. Subjects include pre-employment concerns, legal aspects of the employer/employee relationship, discrimination issues and actions, terminations, and ethical issues in employment law. (FT) Transfer Credit: CSU and/or private coll/univ.

160 Bankruptcy Law  
3 hours, 3 units  
Grade Only

Advisory: Completion of or concurrent enrollment in Legal Assistant 105 or Legal Assistant 110 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Business 265: Bankruptcy Law.

This course is a specialty elective in the Legal Assistant program that focuses on bankruptcy law and procedures. It covers commencement of a case, preparing of schedules, operating and liquidating procedures, adversary matters and litigation in bankruptcy court, and debtors' and creditors' rights and obligations. (FT) Transfer Credit: CSU and/or private coll/univ.

165 Family Law  
3 hours lecture, 3 units  
Grade Only

Advisory: Completion of or concurrent enrollment in Legal Assistant 100B with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with previous credit for Business 265, Family Law.

This course presents a legal specialty option in the Legal Assistant program. The family law course provides legal assistants exposure to domestic relations law and its application to family situations. The course encompasses formation of the marital relationship, dissolution, child custody and support, adoption, abortion, paternity, and domestic violence. (FT) Transfer Credit: CSU and/or private coll/univ.

170 Corporate Law  
3 hours, 3 units  
Grade Only

Advisory: Legal Assistant 100 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with credit for Business 265: Corporate Law.

This course studies the various forms of business enterprises, including sole proprietorships, partnerships, and corporations. The focus is on the legal steps and forms needed to create, maintain, and dissolve each type of business with an emphasis on corporations. (FT) Transfer Credit: CSU and/or private coll/univ.

175 Estates, Trusts, and Wills  
3 hours, 3 units  
Grade Only

Advisory: Legal Assistant 100 with a grade of "C" or better, or equivalent.

Limitation on Enrollment: This course is not open to students with credit for Business 265: Estates, Trusts, and Wills.
This course identifies the responsibilities and duties that can be performed by the paralegal under the supervision of the attorney handling an estate. After reviewing the general principles of law and terminology that are basic to an understanding of the field of estate administration, a chronological treatment of the procedural steps required to complete the administration is presented, including current federal and state tax consequences. (FT) Transfer Credit: CSU and/or private coll/univ.

180 Contract Law

3 hours, 3 units

Advisory: Legal Assistant 100 with a grade of "C" or better, or equivalent.

This course in contracts is designed to serve as a specialty requirement in the legal assistant program. This specialty prepares students with the knowledge and skills for drafting and interpreting different types of contracts including an overview of the elements of a contract, performance and breach issues, defenses to formation and enforcement, contract remedies, and third party contracts. Transfer Credit: CSU and/or private coll/univ.

200 Elder Law

3 hours lecture, 3 units

Advisory: Legal Assistant 105 or Legal Assistant 110 with a grade of "C" or better, or equivalent.

This specialty elective in the Legal Assistant program focuses on legal topics that affect older people. These topics include financial and estate planning, health care, personal planning and protection, and consumer protection. This course benefits students seeking employment in law firms handling elder law and senior care housing facilities. (FT) Transfer Credit: CSU and/or private coll/univ.

210 Immigration Law

3 hours, 3 units

Advisory: Legal Assistant 105 with a grade of "C" or better, or equivalent.

This legal specialty course is designed as an elective in the paralegal program. It also serves as a required class for students seeking an emphasis in Immigration Law. It provides an overview of the laws of immigration and Naturalization involving a history of immigrant migration, the evolution of this country's policies toward aliens and the interplay of the three administrative agencies which administer those laws:

Justice Department, Labor Department and State Department. (FT) Transfer Credit: CSU and/or private coll/univ.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

LIBRARY SCIENCE (LIBS)

101 Information Literacy and Research Skills

1 hour lecture, 1 unit

Advisory: English 51 or English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Level W5 or R5.

This course is an overview of information resources and the skills required to use them effectively. Through lectures, hands-on assignments, and other methods, students learn how to use library resources such as electronic indexes and databases, online services, and the Internet as well as develop strategies for conducting research. This course is intended for students who wish to acquire skills that enable them to find information for academic research, career demands, and/or lifelong learning. (FT) Transfer Credit: CSU and/or private coll/univ.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172.

MARKETING (MARK)

100 Principles of Marketing

3 hours, 3 units

Grade Only

Survey of the nature, scope, and significance of marketing. Study of channels of distribution, the consumer, marketing policies and practices, public and private regulations. (FT) Transfer Credit: CSU and/or private coll/univ.
270 Work Experience
Hours by Arrangement; 1-4 units
Grade Only

Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, including work experience.
A program of on-the-job learning experiences for students employed in a job related to their major. The combined maximum credit for all work experience courses from all disciplines may not exceed 16 units.
Transfer Credit: CSU and/or private coll/univ.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270).
Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

Basic Skills Courses
All courses at this level are offered for college credit. Credit for these courses will not apply toward the associate degree but will count toward the determination of a student's workload and eligibility for financial aid.

32 Fundamentals of Mathematics
5 hours, 5 units
Fundamental concepts in arithmetic and their applications. Topics will include: whole numbers, prime numbers, fractions, decimals, and percents. Credit for this course will not apply to the associate degree.

35 Prealgebra
3 hours, 3 units
Advisory: Mathematics 32 with a grade of “C” or better, or equivalent, or Assessment Skill Level M20.
The concepts in arithmetic, measurement, geometry, and introductory algebra needed to succeed in Mathematics 95. The calculator will be used as a tool for problem-solving. Credit for this course will not apply to the associate degree.

Associate Degree Courses

90 Fundamentals of Mathematics
3 hours lecture, 3 units
Credit/No Credit Only

Limitation on Enrollment: This course is not open to students with previous credit for Mathematics 54 or 95. This course is intended for students who have not passed the California State University Entry-Level Mathematics Examination (ELM). This course reviews arithmetic and geometric concepts, and covers topics in elementary algebra including operations with polynomials, factoring, rational expressions, expressions involving radicals, solving non-linear equations, graphing linear equations, and solving linear systems of equations in two variables.
Associate Degree Credit

91 Algebra for Math Placement
3 hours lecture, 3 units
Credit/No Credit Only
Advisory: Mathematics 90 with a grade of “C” or better, or equivalent.
Limitation on Enrollment: The course is not open to students with previous credit for Mathematics 96 or Mathematics 100.
This course is a continuation of Mathematics 90 and is intended for those students who have not passed the California State University Entry-Level Mathematics Examination (ELM). This course is designed to prepare students for college algebra and consists of a review of intermediate algebra concepts. Topics for the class include set and function notation, simplifications and solutions to equations involving rational and radical expressions, quadratic equations and functions, complex numbers, exponential and logarithmic functions and applications. Associate Degree Credit

95 Elementary Algebra and Geometry
5 hours lecture, 5 units
Prerequisite: Mathematics 35 with a grade of “C” or better, or equivalent, or Assessment Skill Level M30.
Advisory: English 43 and English 42, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W4 and R4.
Limitation on Enrollment: This course is not open to students with credit for Mathematics 54 or 54A & 54B.
Elementary algebra serves as the foundation for the other math courses and is the first of a two-semester integrated sequence in algebra and geometry. This course covers the real number system; the writing, simplifying, solving and graphing of linear equations and inequalities; operations with polynomial functions; and an introduction to rational expressions and the
properties of lines, angles, and triangles. (FT) Associate Degree Credit.

96 Intermediate Algebra and Geometry
5 hours lecture, 5 units
Prerequisite: Mathematics 95 with a grade of “C” or better, or equivalent, or Assessment Skill Level M40.
Advisory: English 43 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W4 and R5.
This course replaces Mathematics 100 and will be offered starting with the spring 2000 term.
Intermediate Algebra and Geometry serves as the foundation for the other math courses and is the second of a two-semester integrated sequence in algebra and geometry. This course covers rational, radicals, and quadratic equations; conic sections; systems of equations and inequalities; exponential and logarithmic functions; sequences and series; solid geometry; and an introduction to trigonometric functions. The course will also include application problems involving the topics covered. This course is the prerequisite for all transferable mathematics courses. (FT) Associate Degree Credit.

Transfer Level Courses

104 Trigonometry
3 hours, 3 units
Grade Only
Prerequisite: Mathematics 96 with a grade of "C" or better, or equivalent, or Assessment Skill Level M50.
This course is a study of the numerical, analytical, and geometric properties of right and oblique triangles, of trigonometric and inverse trigonometric functions, and their applications. The course content includes right angle trigonometry, radian measure, circular functions, graphs of circular functions and their inverses, trigonometric identities, equations involving trigonometric and inverse trigonometric functions, an introduction of the complex plane, vectors and their operations, and the trigonometric form of complex numbers. This course is designed as a preparation for calculus and it is intended for the transfer student planning to major in mathematics, engineering, economics, or disciplines included in the physical or life sciences. This course meets CSU general education requirements. (FT) Transfer Credit: CSU and/or private coll/univ. (CAN MATH 8)

107L Introduction to Scientific Programming Lab
3 hours lab, 1 unit
Corequisite: Mathematics 107.
This is a lab course to be taken concurrently with Mathematics 107. Extensive programming is required. Students are expected to plan and write programming projects with documentation. This course is recommended for students transferring to majors in Computer Science and/or mathematics. (FT) Transfer Credit: CSU and/or private coll/univ.

116 College and Matrix Algebra
3 hours, 3 units
Prerequisite: Mathematics 96 with a grade of "C" or better, or equivalent, or Assessment Skill Level M50.
Advisory: English 56 each with a grade of “C” or better, or equivalent, or Assessment Skill Level R5.
This course is designed to strengthen the algebra skills of students seeking Business or Natural Science degrees that are required to take an applied calculus course. Topics in the course include the theory of functions; graphing functions; exponential and logarithmic functions; solving equations involving algebraic, exponential and logarithmic functions; solving systems of linear equations, matrix algebra, linear programming, modeling, and applications problems. Analytical reading and problem solving are required for success in this course. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Mathematics (MATH) 116 and 141 combined: maximum credit, four units. (CAN MATH 10)

119 Elementary Statistics
3 hours, 3 units
Prerequisite: Mathematics 96 with a grade of "C" or better, or equivalent, or Assessment Skill Level M50.
This course covers descriptive and inferential statistics. The descriptive portion analyzes data through graphs,
measures of central tendency and spread. Other statistical practices utilize basic probability, binomial and normal distributions, estimation of population parameters, hypothesis testing, linear regression and correlation. Analytical reading and problem solving are required for success in this course. This course meets district G.E. requirements. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Mathematics (MATH) 119 combined with Biology 200 or Psychology 258: maximum credit, one course. (CAN STAT 2)

121 Basic Techniques of Applied Calculus I

3 hours, 3 units

Prerequisite: Mathematics 116 with a grade of "C" or better, or equivalent.

This is a course designed for students intending to major in business, natural science or social science. It does not fulfill a mathematics requirement for students majoring in mathematics, chemistry, physics or engineering. This course combines the study of algebra, analytic geometry, and calculus using numerical, graphical, and analytical methods to analyze calculus problems encountered in real world applications. Topics include limits, derivatives, and integrals of algebraic, exponential and logarithmic functions. Also covered are functions of several variables, partial derivatives, and optimization of multivariable functions. Applications of calculus include curve sketching, optimization, and areas under curves. Analytical reading and problem solving are required for success in this course. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Mathematics (MATH) 121 and 150 combined: maximum credit, one course. (CAN MATH 30) (CAN MATH SEQ D = MATH 121 + 122)

122 Basic Techniques of Calculus II

3 hours, 3 units

Prerequisite: Mathematics 121 with a grade of “C” or better, or equivalent.

In this continuation of Mathematics 121, students intending to major in business, natural science, or social science learn about integration, multivariable functions, differential equations, series, and formatting trigonometric functions. This course does not fulfill a mathematics requirement for students intending to major in mathematics, chemistry, physics, or engineering. Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Mathematics (MATH) 122 and 151 combined: maximum credit, one course. (CAN MATH 32) (CAN MATH SEQ D = MATH 121+122)

141 Precalculus

5 hours lecture, 5 units

Prerequisite: Mathematics 104 with a grade of "C" or better, or equivalent.

This course is a study of numerical, analytical, and graphical properties of functions. The course content includes polynomial, rational, irrational, exponential, logarithmic, and trigonometric functions. Additional topics include: inverse functions, complex numbers, polar coordinates, matrices, conic sections, sequences, series and the binomial theorem. This course is designed as a preparation for calculus and is intended for the transfer student planning to major in mathematics, engineering, economics, or disciplines included in the physical or life sciences. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Mathematics (MATH) 121 and 150 combined: maximum credit, one course. (CAN MATH 18)
engineering. It is intended for the transfer student planning to major in mathematics, computer science, physics, chemistry, engineering and economics. This course meets general education requirements, CSU, IGETC, and TAG requirements. (FT). Transfer Credit: CSU and/or private coll/univ.; UC. UC Transfer Credit: Mathematics 151 and Mathematics 122 combined: maximum credit, one course. See a counselor. (CAN MATH 20) (CAN MATH SEQ B = MATH 150 + 151) (CAN MATH SEQ C = MATH 150 + 151 + 255)

210A Concepts of Elementary School Mathematics I

3 hours, 3 units
Prerequisite: Mathematics 96 with a grade of "C" or better, or equivalent, or Assessment Skill Level M50.
Advisory: English 101 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W6 and R6.
This course is a study of the mathematical concepts needed for teaching elementary school mathematics with emphasis on number, function, and geometry. This course promotes an appreciation of the importance of logical thinking and applications of mathematics in problem solving and critical thinking. It is designed especially for students preparing for credentials in elementary education. Analytical reading and problem solving are required for success in this course. Transfer Credit: CSU and/or private coll/univ.; UC transfer limitation, Math 210A and 210B combined: maximum credit, one course. (CAN MATH 4)

210B Concepts of Elementary School Mathematics II

3 hours, 3 units
Prerequisite: Mathematics 210A with a grade of "C" or better, or equivalent.
Advisory: English 101 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W6 and R6.
This course is a study of the mathematical concepts needed for teaching elementary school mathematics with emphasis on measurement, logic and language, probability and statistics, discrete mathematics and real numbers. This course will also promote an appreciation of the importance of logical thinking and applications of mathematics in problem solving and critical thinking. It is designed especially for students preparing for credentials in elementary education. Analytical reading and problem solving are required for success in this course. (FT). Transfer Credit: CSU and/or private coll/univ.; UC. UC transfer limitation: Math 210A and 210B combined, maximum credit, one course.

212 Children's Mathematical Thinking

1 hour lecture, 1 unit
Grade Only
Advisory: Concurrent enrollment in Mathematics 210A.
This course focuses on children's mathematical thinking and includes an in-depth study of place-value, fractions and how children solve mathematical problems. Students observe children and evaluate the problem strategies that are used. For students in San Diego State University's Liberal Studies Blended Teacher Education Program, this course is required and must be taken concurrently with Mathematics 210A. (FT) Transfer Credit: CSU and/or private coll/univ.

245 Discrete Mathematics

3 hours, 3 units
Prerequisite: Mathematics 122 or 151 with a grade of "C" or better, or equivalent.
Advisory: English 101 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W6 and R6.
This course covers logic, methods of proof, set theory, Boolean algebra, number theory, equivalence and order relations, counting (combinations and permutations), solving recurrence relations. Transfer Credit: CSU and/or private coll/univ.; UC.

252 Calculus with Analytic Geometry III

4 hours, 4 units
Prerequisite: Mathematics 151 with a grade of "C" or better, or equivalent.
The content of this course includes the algebra and geometry of 2- and 3-dimensional Euclidean vectors, limits, continuity, partial differentiation, extrema of vector-valued and multivariable functions, higher order derivatives, the chain rule, Lagrange's theorem, multiple integrals, integrals over paths and surfaces, and integral theorems of vector analysis. This course is intended as a general introduction to the theory and applications of multivariable calculus. It is essential for most upper division courses in mathematics and forms part of the foundation for engineering and physics. It is intended for the transfer student planning to major in mathematics, physics, engineering, computer science, physical chemistry, operational research, or economics. This course meets general education requirements, CSU, IGETC, and TAG requirements. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN MATH 22)

254 Introduction to Linear Algebra

3 hours, 3 units
Prerequisite: Completion of Mathematics 151 with a grade of "C" or better, or equivalent.
This course covers matrix algebra, Gauss elimination, determinants, vector spaces, linear transformations,
orthogonality, eigenvalues and eigenvectors. Transfer Credit: CSU and/or private coll/uni.; UC. (CAN MATH 26)

255 Differential Equations

3 hours, 3 units

Prerequisite: Mathematics 252 and 254, each with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with credit for Mathematics 253.
This course covers first order and higher order equations and their applications. Topics include linear
first order and higher order equations, homogeneous and nonhomogeneous equations with constant or
variable coefficients, and systems of ordinary differential equations. Methods used to solve equations
include substitution methods, integrating factors, reduction of order, variation of parameters, power series
solutions, and Laplace Transforms. This course is intended as an introduction to the theory and
applications of differential equations and is the basis for many upper division courses in engineering,
physics, and mathematics. It is intended for the transfer student planning to major in mathematics,
engineering, operational research, physics, or other physical science.
This course meets CSU general education requirements.
(FT) Transfer Credit: CSU and/or private coll/uni.; UC.
(CAN MATH 24) (CAN MATH SEQ C = MATH 150 + 151 + 255)

This discipline may offer specialized instruction in one or more of the following areas: Supervised
Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296),
Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270).
Detailed course descriptions are listed on page 172.
Please refer to the class schedule and/or see the dean or department chair for availability.

100 Introduction to Music

3 hours, 3 units

Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill
Levels W5 and R5.
This is a survey course designed to develop listening perception through lectures, recordings, films and
concerts. The conceptual and stylistic differences in music from various periods and cultures will be
examined through discussion of the elements of music as well as through discussions of ethnic, jazz, vocal
instrumental and 20th century music. This course is designed to support students in all majors who are
interested in satisfying the general education requirements for Arts and Humanities. (FT) Transfer
Credit: CSU and/or private coll/uni.; UC.

101 Music History I: Middle Ages to Mid 18th Century

3 hours, 3 units

Advisory: Completion of Music 150A and English 51 and English 56, each with a grade of "C" or better, or equivalent. Assessment Skill Levels W5 and R5.
This course is a study of Western (European) music from the Middle Ages through the middle of the 18th
century. Emphasis is on aural and visual recognition of style, form, and other musical elements examined
through representative works of composers of each historical period. This course is designed for but not
limited to music majors. (FT) Transfer Credit: CSU and/or private coll/uni.; UC.

102 Music History II: Mid 18th to Early 20th Century

3 hours, 3 units

Advisory: Completion of Music 150A and English 51 and English 56, each with a grade of "C" or better, or equivalent. Assessment Skill Levels W5 and R5.
This course is a study of Western (European) music from the middle of the 18th century through the early 20th
century. Emphasis is on aural and visual recognition of style, form, and other musical elements examined
through representative works of major composers of each historical period. This course is designed for but
not limited to music majors. (FT) Transfer Credit: CSU and/or private coll/uni.; UC.

109 World Music

3 hours, 3 units

Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill
Levels W5 and R5.
This music survey course explores the music cultures of Asia, the Middle East, Africa, Central and South
America, the Caribbean and other areas with resident populations in San Diego. Musical practices and
perspectives from several music cultures are studied with an emphasis on understanding and appreciation
from non-ethnocentric viewpoints. Listening perception is developed through lectures and multimedia
presentations. The course is intended to satisfy general education requirements for Arts and Humanities and
satisfies the San Diego Community College District’s
Multicultural Course Studies requirement. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

110 Music for Elementary School Teachers  
2.5 hours lecture, 1.5 hours lab, 3 units  
Advisory: English 51 and English 56 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.  
This course prepares students to teach music as part of the curriculum in the elementary school classroom, the preschool, or day-care program. Students develop an understanding of musical concepts primarily by singing and/or playing an instrument and create lesson plans for teaching these concepts to children. (FT) Transfer Credit: CSU and/or private coll/univ.

111 Jazz History and Development  
3 hours, 3 units  
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.  
An introduction to jazz, its historical background and its development in the United States. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

125 Music, the Arts, and Humanity  
3 hours, 3 units  
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.  
This course is a multicultural, multimedia approach to the living musical, expressive and ceremonial artforms and cultural context of the major continents. Cultures in the United States that have been traditionally underrepresented in the curriculum will be emphasized. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

150A Basic Musicianship  
3 hours, 3 units  
This course is designed for music majors as well as non-music majors. It enables the student to develop perceptions in sight and sound as related to the symbols of rhythmic, melodic, and harmonic notation. It will also enable the student to develop skill in writing, major, minor, and chromatic scales, chord construction and intervals; and to identify terms used to indicate tempo and dynamics. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

190 The Electronic Music Studio  
2.5 hours lecture, 1.5 hours lab, 3 units  
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5. Completion of or concurrent enrollment in Music 150A.  
This course is a study of recording and electronic music equipment. It is a prerequisite to future work in the electronic music studio and also prepares students for a major in music. The course demonstrates basic techniques using microphones, tape recorders, the mixing board, synthesizers, samplers and music applications such as sequencing on computers. Emphasis is on students’ acquisition of basic skills needed for practical application and on acquiring knowledge of simple electronic and acoustic theory, including Musical Instrument Digital Interface (MIDI). Students design and create special projects using this equipment and proper protocol during lab hours and present their projects in class. (FT) Transfer Credit: CSU and/or private coll/univ.

201 Recording Arts  
2.5 hours lecture, 1.5 hours lab, 3 units  
Prerequisite: Music 190 with a grade of "C" or better, or equivalent.  
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; completion of or concurrent enrollment in Music 150A.  
This course is a study of advanced acoustics and electronic theory as applied to recording, mixing, and sound processing. The course will demonstrate various applications of advanced tape recording, microphone use, and mixing, such as tape editing, effects processing, music concrete composition, and other techniques for music composition. (FT) Transfer Credit: CSU.

202 Computer Music  
2.5 hours lecture, 1.5 hours lab, 3 units  
Prerequisite: Music 190 with a grade of "C" or better, or equivalent.  
Advisory: Music 150A with a grade of "C" or better, or equivalent; and English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.  
This course is a study of the application of contemporary digital technology to the practice of music performance and composition. The emphasis of this course is on the acquisition of computer skills to access and manipulate musical data via MIDI and other digital formats. These skills allow students to digitally sample sounds, control synthesizers and samplers, synchronize computers to tape, sequence music, transcribe and print musical scores and conceive new techniques for music composition. This course is
designed for students who are interested in continuing their education in the Electronic Music Studio. (FT) Transfer Credit: CSU and/or private coll/univ.

230A-B Jazz Improvisation
3 hours lab, each course: 1 unit
A comprehensive study of the techniques and literature of improvisation with an emphasis of jazz improvisation and interpretation. Analysis and practical application of chord progressions used in jazz. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

252 Concert Jazz Band
3-9 hours lab, 1-3 units
Limitation on Enrollment: Audition/Try Out
A selected group of limited membership devoted to the preparation and performance of the best contemporary jazz and stage band literature. Designed to meet the needs of the student desiring to enter the field of professional stage band work, but open to qualified students of any department of the college. The group gives public concerts and supplies music for college functions. Attendance at rehearsals and performances is an integral part of this course. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

253A Ensembles
3-9 hours lab, 1-3 units
Advisory: Music 150A with a grade of "C" or better, or equivalent.
Music 253A is the study and performance of selected ensemble works. After audition each student is assigned to a like ensemble. These ensembles will be organized to meet the technical and aesthetic needs of the student. Special training will be given in ensemble technique and current performance practices. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

NUTRITION (NUTR)

150 Nutrition
3 hours, 3 units
Grade Only
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and Mathematics 32 with a grade of "C" or better, or equivalent, or Assessment Skill Level M20.
This course examines the scientific concepts of nutrition relating to the functioning of nutrients within the human body. Emphasis is placed on nutritional needs throughout the life cycle, food sources of nutrients, and current nutritional issues. Students utilize computer technology to analyze dietary intake and evaluate nutritional status. This course meets the Natural Sciences general education requirement for the associate degree at the San Diego Community College District. It also meets Area E requirement for transfer to California State Universities. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN FCS 2)

170 Nutrition and Fitness
3 hours lecture, 3 units
Grade Only
Advisory: English 51 and English 56 and Mathematics 32, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5 and M20.
This course is designed for the physically active person interested in the role nutrition plays to increase energy and enhance performance. Nutrient needs before, during, and after exercise are evaluated for their effect on optimal performance. Carbohydrate loading and a variety of supplements are discussed. Underwater weighing to determine body fat composition is available. This course is designed for both the recreational and competitive athlete and may be applied to the major or used as a transfer course. It may also be of interest to those with an interest in health and fitness. (FT) Transfer credit: CSU and/or private coll/univ.

180 Nutrition and Diet Therapy
3 hours, 3 units
Grade Only
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and Mathematics 32 with a grade of "C" or better, or equivalent, or Assessment Skill Level M20.
This course emphasizes concepts of nutrition relating to the functioning of nutrients within the human body.
and food sources of these nutrients, with special emphasis on nutritional assessment in specific disease conditions and therapeutic diets relevant to given conditions. An introduction to drug/nutrient interactions is also given. (FT) Transfer Credit: CSU and/or private coll/univ.

**OFFICE INFORMATION SYSTEMS (OFCE)**

See “COMPUTER BUSINESS TECHNOLOGY (CBTE)” on page 214.

**PERSONAL GROWTH (PERG)**

### 30 Career Planning

**1-3 hours, 1-3 units**

This course is designed to assist students in making career choices. Topics include self-concept, values, interests, skills assessment, understanding the data/people/things orientation of work, job satisfiers, exploration of career information, and the decision-making process. (FT) Associate Degree Credit.

### 127 College Success Skills

**3 hours, 3 units**

Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5, or concurrent enrollment in English 51 and/or 56. This course examines the techniques used to enhance academic skills in order to achieve subject matter mastery and develop strategies for success in a diverse society. Critical thinking skills are interwoven throughout the course by exploring areas such as motivation and attitudes, stress management, creativity, interpersonal communication, and personal health. Topics from developmental psychology, learning theory and personality theory are presented as a foundation for this course. The course is designed for new or re-entry students and others who can benefit. (FT) Transfer Credit: CSU and/or private coll/univ.

### 130 Career-Life Planning

**3 hours, 3 units**

Advisory: Completion of or concurrent enrollment in English 51 and/or 56 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5. Limitation on Enrollment: This course is not open to students with credit for Personal Growth 30. This course is designed to assist students with self-exploration, career transitions and career-life planning in order to achieve success in a diverse society. Critical thinking skills will be utilized through a systematic approach to career development by examining values, interests, skills, life roles, personality type, personal self-management, decision-making and goal setting throughout the life span. The course is designed for new and re-entry students and others who can benefit. (FT) Transfer Credit: CSU and/or private coll/univ.

### 140 Life Skills and Personal Adjustment

**1-3 hours lecture, 1-3 units**

Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5. Students learn and apply personal achievement principles, coping strategies, and life skills that develop each area of emotional, social, educational, and professional life. Emphasis is on gaining mastery in self-esteem and compassion, self-discipline, self-responsibility, self-assertion, and living a consciously balanced life in pursuit of defined educational, career, and life goals. (FT) Transfer Credit: CSU and/or private coll/univ.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

**PHILOSOPHY (PHIL)**

### 100 Logic and Critical Thinking

**3 hours, 3 units**

Advisory: English 101 or 105 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W6 and R6. This course explores the relationship of communications and critical thinking with a focus on good reasoning and the impediments to its mastery.
This course emphasizes the development of skills in logical processes including familiarity with the more common fallacies. This course is designed for students learning to apply principles of critical thinking to the practical problems of everyday life. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN PHIL 6)

101 Symbolic Logic
3 hours, 3 units

**Prerequisite:** Mathematics 96 with a grade of "C" or better, or equivalent, or Assessment Skill Level M50 and Philosophy 100 with a grade of "C" or better, or equivalent.

**Advisory:** English 101 or 105 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W6 and R6.

This course studies the elements of symbolic logic, sentential calculus and quantification theory, identity, definite descriptions, natural deduction and structure of language. This course may be of interest to students pursuing studies in computer science. Transfer Credit: CSU and/or private coll/univ.; UC.

102A Introduction to Philosophy: Reality and Knowledge
3 hours, 3 units

**Advisory:** English 101 or 105 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W6 and R6.

This course provides an introductory study of the aims, methods, types and problems of philosophy and philosophical inquiry. Discussions and readings relating to the nature of reality and problems of knowledge are emphasized. Materials for this survey of philosophical activity, orientations and views of philosophers may be drawn from classical and contemporary thinkers. Students are encouraged to articulate, analyze and evaluate their own beliefs/positions in the context of meaningful philosophical inquiry. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN PHIL 2)

102B Introduction to Philosophy: Values
3 hours, 3 units

**Advisory:** English 101 or 105 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W6 and R6.

This course provides an introductory study of the aims, methods, types and problems of philosophy and philosophical inquiry focusing on values and their place in an individual’s daily life. Materials for this survey of philosophical activity, orientations and views of philosophers may be drawn from classical and contemporary thinkers. Students are encouraged to articulate, analyze and evaluate their own beliefs/positions in the context of meaningful philosophical inquiry regarding value theory. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN PHIL 4)

107 Reflections on Human Nature
3 hours, 3 units

**Advisory:** English 101 or 105 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W6 and R6.

This course explores the issues and problems exemplified in process of meaningful philosophical activity relating to the topic of human nature. Studies in this course survey representative theories and philosophical reflections relating to the notions of human nature, the individual person, and human characteristics in general. Material for this survey may be drawn from classical and contemporary thinkers, scientific and religious orientations. Students are encouraged to engage in independent research, analysis and formulation. This course may interest students pursuing studies in behavioral and/or social sciences. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

205 Critical Thinking and Writing in Philosophy
3 hours lecture, 3 units

**Prerequisite:** English 101 or 105 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W6 and R6.

This critical thinking and writing seminar in Philosophy is designed to enhance the student’s critical thinking, writing, and research skills in preparation for upper division academic activity. Issues addressed in this class may involve various areas of human experience and aspiration: metaphysical, cosmological, scientific, political, ethical, aesthetic, and religious. Together with the application of basic principles of deduction and induction, special attention is given to identifying and avoiding fallacies in reasoning and to techniques and aids to research, reasoning, and writing. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.
Physical Education Classes/Intercollegiate Sports Disclaimer

Participation in all sports and physical education activities involves certain inherent risks.

Risks may include, but are not limited to, neck and spinal injuries that may result in paralysis or brain injury, injury to bones, joints, ligaments, muscles, tendons and other aspects of the muscular skeleton system; and serious injury, or impairment, to other aspects of the body and general health, including death. The San Diego Community College District, its officers, agents and employees are not responsible for the inherent risks associated with participation in physical education classes/intercollegiate sports.

Students are strongly advised to consult a physician prior to participating in any physical education activity.

Physical Education classes are offered at the beginning, intermediate and advanced levels.

Aquatic Activities

106 Aquatic Fitness
2 - 3 hours lab, 0.5 - 1 unit
This course covers instruction and conditioning in the four competitive swimming strokes through interval training stressing cardiovascular respiratory fitness in aquatic activities. The swimming program is set up to attain desired levels of cardiovascular efficiency. This course may be taken four times for credit. (FT) Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

119 Springboard Diving
2 hours lab, 0.5 unit or 3 hours lab, 1 unit
This course is designed as an introduction to springboard diving with. Progressive skill development in performing dives from five different categories. This course includes novice, beginning, intermediate and advanced levels. Standardized skill progressions are used for the forward, backward, inward, reverse and twisting dives. The concepts covered include springboard diving techniques and water safety. This course may be taken four times for credit. (FT) Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

139 Lifeguard Training - Advanced Swimming
2.5 hours lecture, 1.5 hours lab, 3 units
This course gives the most current instruction in the American Red Cross lifeguard training techniques and first aid and CPR skills required to gain eligibility for a lifeguarding position. Upon successful completion, a student will earn certifications in both American Red Cross Lifeguard Training and CPR for the Professional Rescuer. This course may be repeated as necessary to meet a legally mandated training requirement as a condition of continued of continued or volunteer employment. Adequate swimming skills are necessary. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

155 Swimming
2 - 3 hours lab, 0.5 - 1 unit
This course emphasizes instruction and practice in the fundamental to advanced swimming strokes including water safety skills. Stroke analysis, conditioning and endurance are stressed in the progression of classes. Beginning and intermediate levels are available. This course may be taken four times for credit. (FT) Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

156 Water Exercise
2 hours lab, 0.5 unit or 3 hours lab, 1 unit
Instruction in the development of the fundamental elements of fitness through the application of water resistance and buoyancy. Progressive instruction includes the development of increasingly more strenuous exercises for cardiorespiratory fitness, muscular strength, endurance and flexibility. Transfer Credit: CSU and/or private coll/univ.; UC.

163 Water Polo
2 hours lab, 0.5 unit or 3 hours lab, 1 unit
This course is designed to emphasize the fundamental skill development related to the aquatic sport of water polo. Progressive skill development includes picking up a ball in the water, passing, receiving, shooting, dribbling, and playing in a game. Discussion includes proper offensive and defensive positioning, team strategies, and rules of play. This course may be taken four times for credit. (FT) Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.
**164 Water Safety Instructor**  
2.5 hours lecture, 1.5 hours lab, 3 units  
This course gives the most current instruction in the American Red Cross (ARC) Water Safety Instructor (WSI) course. Upon successful completion, students earn WSI certification, which enables them to teach the Learn to Swim programs of the American Red Cross. This course may be repeated as necessary to meet a legally mandated training requirement as a condition of continued or volunteer employment. Adequate swimming skills are necessary. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

**226 Intercollegiate Water Polo I**  
Fall, 10 lab hours, 2 units  
This course is designed for men and women to compete in Intercollegiate water polo competition. This course may be taken two times for credit. (FT) Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

**227 Intercollegiate Water Polo II**  
Fall, 10 lab hours, 2 units  
This course is designed for men and women to participate in intercollegiate varsity water polo competition. This course may be taken two times for credit. (FT) Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

**Dance**  
A program which offers the student instruction in a variety of dance forms. Classes range from the beginning level through the performance level.

**103 Aerobic Dance**  
2 - 3 hours lab, 0.5 - 1 unit  
Aerobic Dance is a rigorous exercise course designed to increase both the fitness level of participating students and their understanding of what constitutes a safe and effective exercise program. Instruction includes a balanced exercise program of aerobics, toning, stretching, and relaxation along with discussion of related health topics. This course may be taken four times for credit. (FT) Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

**116 Choreography**  
1.5 hours lecture, 1.5 hours lab, 2 units  
*Advisory: Physical Education 110 or 135 or 140 with a grade of "C" or better, or equivalent.*  
Choreography is a course which explores the theories and elements utilized in the creative process of dance composition. Emphasis is placed on student application of choreographic concepts through the development of movement compositions. This course, in combination with Dance 253, may be taken four times for credit. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

**118 Dance Production**  
3-6 hours lab, 1-2 units  
Dance production explores the technical and management aspects of producing a dance concert. Emphasis is placed on student application of design and construction of costumes, lighting design, makeup application, stage and house management, and publicity. This course, in combination with Dance 271, may be taken four times for credit. Transfer Credit: CSU and/or private coll/univ.; UC.

**129 Dance Performance**  
6 hours lab, 2 units  
*Advisory: Physical Education 110 or 135 or 140 with a grade of "C" or better, or equivalent.*  
Dance Performance provides the opportunity for students to apply intermediate and advanced skill in ballet, jazz and modern dance in preparation for public performance. Emphasis is placed on student application of dance, staging, and performance techniques in a theatrical environment. This course, in combination with Dance 261, may be taken four times for credit. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

**130 Dance Repertoire**  
2 - 3 hours lab, 0.5 - 1 unit  
*Advisory: Physical Education 110 or 135 or 140 with a grade of "C" or better, or equivalent.*  
Dance Repertoire is designed to introduce the dancer to the choreography of renowned choreographers. This course provides the opportunity for students to learn and perform selected choreography in ballet, modern, jazz, tap, and musical theater. This course, in combination with Dance 130, may be taken four times for credit. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

**135 Jazz Dance**  
2 - 3 hours lab, 0.5 - 1 unit  
Jazz Dance is a course which explores a variety of jazz dance techniques focusing on the development of coordination, flexibility, balance, strength, correct body alignment and rhythmic perception. Dance combinations are performed to demonstrate technical ability at all skill levels. This course, in combination with Dance 135, may be taken four times for credit. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.
140 Modern Dance
2 hours lab, 0.5 unit or 3 hours lab, 1 unit
Modern Dance is a course that explores the fundamental concepts and techniques of modern dance including floor stretch, center work, locomotor sequences and dance combinations. The student demonstrates, defines and performs flexibility, coordination, rhythmic and dynamic perception, control and strength. The class critiques, discusses and analyzes line, design, technique, choreography and dynamic qualities through lectures, video tapes and concert critiques. This course, in combination with Dance 140, may be taken four times for credit. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

178 Advanced Contemporary Dance
3 hours lab, 1 unit
Advisory: Physical Education 135 with a grade of "C" or better, or equivalent.
This course focuses on the movement principles of American dance masters Jack Cole, Bob Fosse, Luigi and Matt Mattox. Instruction includes student performance of various contemporary dance styles for videotaped analysis of technical proficiency. This course, in combination with Dance 178, may be taken four times for credit. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

Individual Activities
A basic program which offers the student a choice of vigorous, competitive activity in individual sports and activities designed to provide carry-over value for leisure life. Instruction is in fundamental skills knowledge of rules and strategy, with emphasis on physical fitness.

115 Bowling
2 - 3 hours lab, 0.5 - 1 unit
This course is designed to develop skills necessary to improve student performance of the fundamentals of the stance, point of origin, approach, back swing, release and follow through, rules, scoring and etiquette in the game of bowling. Progressive instruction emphasizes individual skill development, spot bowling and participation in a league bowling situation. This course may be taken four times for credit. Transfer Credit: CSU and/or private coll/univ.; UC.

123 Fitness Activities
2 - 3 hours lab, 0.5 - 1 unit
This course includes instruction in the skills necessary to improve aerobic fitness and cardiovascular health. Through fitness topics covered, students will develop an individual fitness program. Aerobic exercise focuses primarily jogging, progressing to running for the development of comprehensive fitness. This course may be taken four times for credit. Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

126 Golf
2 hours lab, 0.5 unit or 3 hours lab, 1 unit
Instruction and practice in the fundamentals of grip, stance, alignment, backswing and downswing. Also covering the use of the various clubs, rules, scoring and the etiquette of the game. The “one basic golf swing” theory will be emphasized throughout the course. Outside assignments practicing at a driving range or golf course are allowed. Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

132 Individual Conditioning
2 hours lab, 0.5 unit or 3 hours lab, 1 unit
Individually programmed instruction in the fundamental skills of weight training and aerobic activity. Progressive instruction involves more advanced levels of weight training and comprehensive aerobic development. Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

154 Speedwalking
0.5 - 1.5 hours lecture, 1.5 hours lab, 1-2 units
Grade Only
This course covers the skills necessary to improve aerobic fitness and cardiovascular health through speedwalking, with comprehensive instruction in fitness principles and exercise technique. Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

159 Tennis
2 hours lab, 0.5 unit or 3 hours lab, 1 unit
Instruction in the fundamental skills of the service, forehand and backhand strokes; court positioning, rules of the game and scoring. Progressive instruction includes the volley, overhead, singles and doubles strategy and tournament play. Instruction covering tennis scoring, court position, strategy, and strokes, including the forehand, backhand, serve, volley, and overhead. Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.
166 Weight Training
2 hours lab, 0.5 unit or 3 hours lab, 1 unit
This course is an introduction to progressive resistance training. It is designed for the student interested in developing strength, muscle endurance, and muscle tone. Instruction includes learning proper methods of weight training, various types of weight training programs, and safety factors. This course may be taken four times. Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

Team Sports

112 Basketball
2 hours lab, 0.5 unit or 3 hours lab, 1 unit
This course offers basic instruction in the fundamental skills of basketball and team offense and defense. Instruction includes terminology, rules and strategy of the game. This course may be taken four times for credit. Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

141 Over-the-Line
3 hours lab, 1 unit
This course provides instruction in the skills of over-the-line including pitching, catching, and proper styles of batting. Rules of play, strategy, and game situations are introduced through various types of tournaments and contests. This course may be taken four times for credit. Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

149 Soccer
2 hours lab, 0.5 unit or 3 hours lab, 1 unit
This course emphasizes progressive instruction and practice of basic fundamentals through advanced soccer skills. The topics covered include soccer techniques and skills, offensive and defensive strategies, rules, and officiating. This course may be taken four times for credit. (FT) Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

151 Softball
2 - 3 hours lab, 0.5 - 1 unit
This course provides instruction in the fundamental skills of throwing, catching, running, hitting, and rules of play of softball as well as individual and team skill development and strategies involved in competitive game situations. This course may be taken four times for credit. (FT) Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

161 Volleyball
2 hours lab, 0.5 unit or 3 hours lab, 1 unit
This course provides instruction and on-court experience in the skills, strategies, rules and behaviors necessary to play volleyball at the recreation level. This course may be taken four times for credit. Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

170 Tennis Doubles
2 hours lab, 0.5 unit or 3 hours lab, 1 unit
Instruction in the fundamental tennis strokes, strategy, court position, and teamwork that apply in playing tennis doubles. Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

Physical Education Theory Classes

240 Physical Education in the Elementary Schools
3 hours lecture, 1 hour lab, 3 units
Advisory: Completion of or concurrent enrollment in English 51 and 56, each with a grade of "C" or better, or equivalent, or W5 and R5.
This course includes a brief study of the growth, development and characteristics of the elementary school child. The elements of written lesson plans, units, evaluations and various forms of testing are covered. The teaching of fundamental skills, rhythms, dance and games based on sound physiological principles for this age group is emphasized. The positive impact of physical education on health and wellness in addition to academic achievement is explored. Actual teaching situations are experienced in the lab sessions. This course is designed to fulfill lower division preparation for the major for students interested in elementary education. (FT) Transfer Credit: CSU and/or private coll/univ.

241 Introduction to Exercise Science/Physical Education
2 hours, 2 units
Advisory: English 51 and English 56 with grades of "C" or better, or equivalent, or Assessment Skill Levels W5, R5.
This course is the introductory course for students majoring in Physical Education and is required for the Associate in Arts degree in Physical Education. It provides the student an opportunity to study the history, basic philosophy, basic principles, and professional career options of exercise science. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.
242 Care and Prevention of Injuries  
Fall, Spring, 2 hours lecture, 1 hour lab, 2 units  
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.  
Prevention and care of common athletic injuries is discussed. This course covers the theory and practice of emergency field care and basic athletic first aid. Bandaging and/or taping techniques are included. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

245 Sports Officiating - Fall Sports  
2 hours lecture, 3 hours lab, 3 units  
Theory and practice in the techniques of officiating highly organized athletic activities. Football, basketball and wrestling are offered to provide the knowledge and skills necessary for the regulation of each activity. Includes rules, strategy, and techniques employed by officials. Practical experience is gained through the lab sessions. Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

246 Sports Officiating - Spring Sports  
2 hours lecture, 3 hours lab, 3 units  
Theory and practice in the techniques of officiating highly organized athletic activities. Baseball, track and field, and other sport activities will be offered to provide the knowledge and skills necessary for the regulation of each activity. Includes rules, strategy, and techniques employed by officials. Practical experience gained through the lab sessions. Transfer Credit: CSU and/or private coll/univ.; UC transfer limitations. See a counselor.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

100 Survey of Physical Science  
3 hours, 3 units  
Advisory: Concurrent enrollment in Physical Science 101.  
Advisory: English 42 with a grade of "C" or better, or equivalent, or Assessment Skill Level R4; and Mathematics 32, with a grade of "C" or better, or equivalent, or Assessment Skill Level M20.  
This course is an introductory survey of the fundamental concepts of astronomy, geology, chemistry and physics and the interrelationships among these disciplines. Emphasis is placed on the ways in which the physical sciences affect life on the planet and the role discipline plays in addressing issues and problems related to energy, ecology and environmental sustainability. This course is recommended for students planning to major in geography and/or planning to transfer to a four-year institution. Transfer Credit: CSU and/or private coll/univ.; UC Transfer Credit: No credit for Physical Science (PHYN) 100, 101 if taken after a college course in Chemistry or Physical Science.

101 Survey of Physical Science Laboratory  
3 hours lab, 1 unit  
Advisory: Completion of or concurrent enrollment in Physical Science 100.  
Laboratory experience to supplemental Physical Science 100. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: No credit for Physical Science (PHYN) 100, 101 if taken after a college course in Chemistry or Physical Science.

120 Physical Oceanography  
3 hours, 3 units  
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and Mathematics 32 with a grade of "C" or better, or equivalent, or Assessment Skill Level M20.  
A lecture/demonstration course studying the chemical and physical aspects of the oceans and the resulting effect on man and his environment. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

124A General Physics  
3 hours lecture, 3 hours lab, 4 units  
Prerequisite: Mathematics 96 with a grade of "C" or better, or equivalent, or Assessment Skill Level M50.
Corequisite: Physics 125A.

Limitation on Enrollment: This course is not open to students with previous credit for Physics 120A and Physics 120B.

This course is an introductory survey of the concepts and principles of physics. Emphasis is placed on developing an understanding of the properties of matter, mechanics, heat and sound. This course is intended for students taking liberal arts and/or pre-professional courses that do not require Physics with calculus. (FT) Transfer Credit: CSU and/or private coll/univ.; UC Transfer Course List: Physics (PHYS) 120A,B, 121A,B and 124A,B and 195A,B,C combined: maximum credit, one series (per catalog) deduct credit for duplication of topics.

124B General Physics

3 hours lecture, 3 hours lab, 4 units

Prerequisite: Physics 124A with a grade of "C" or better, or equivalent.

Corequisite: Physics 125B.

Limitation on Enrollment: This course is not open to students with previous credit for Physics 120B or 121B. This course is the second in a two-part, introductory survey of the concepts and principles of physics. Major topics are electricity, magnetism, light and modern physics. This course is intended for students taking liberal arts and/or pre-professional courses that do not require Physics with calculus. (FT) Transfer Credit: CSU and/or private coll/univ.; UC Transfer Course List: Physics (PHYS) 120A,B, 121A,B and 124A,B and 195A,B,C combined: maximum credit, one series (per catalog) deduct credit for duplication of topics.

125A Problem-Solving for General Physics

1 hour, 1 unit

Prerequisite: Mathematics 96 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.

Corequisite: Physics 120A or 124A.

Small group discussions of physics problems and problem solving methods. Transfer Credit: CSU and/or private coll/univ.

125B Problem-Solving for General Physics

1 hour, 1 unit

Prerequisite: Physics 124A with a grade of "C" or better, or equivalent.

Corequisite: Physics 120B or 124B.

Small group discussions of physics problems and problem solving methods. Transfer Credit: CSU and/or private coll/univ.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

POLITICAL SCIENCE (POLI)

101 Introduction to Political Science

3 hours, 3 units

Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.

A survey course designed to acquaint the student with selected concepts, theories, and methods of the political process, their history and application. NOTE: Completion of Political Science 101 will fulfill the SDCC District's three-unit social science GE requirement. Political Science 101 is required for completion of the major in political science and is highly recommended for those students transferring to four-year institutions. (FT) Transfer Credit: CSU and/or private coll/univ., UC.

102 The American Political System

3 hours, 3 units

Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.

This comprehensive survey course, designed for students intending to transfer to a four-year college or university, provides an in depth study of the American political system. Both national and California experiences are studied from the perspective of constitutional frameworks, institutions, issues, and policies. NOTE: If used to satisfy the American Institutions requirement, Political Science 102 may not be used to satisfy the SDCC District's three-unit social science GE requirement. Political Science 102 is required for completion of the major in political science. Political Science 102 may be offered in a self-paced format. The completion of the Political Science 101 and 102 sequence fulfills both the SDCC District's American Institutions requirement and the SDCC District's three-unit social science GE requirement. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN GOVT 2)

103 Comparative Politics

3 hours, 3 units

Advisory: Political Science 101 with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with credit for Political Science 130. A general study of selected governments, their development, organization, administration, and politics. Transfer Credit: CSU and/or private coll/univ.; UC.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

### PSYCHOLOGY (PSYC)

**101 General Psychology**

*Advisory:* English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5.

A survey of the principles and concepts which are basic to understanding human behavior. Intended to give the individual some insight into his/her own motives and activities. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Psychology (PSYC) 101 combined with Black Studies 104 or Chicano Studies 105: maximum credit, one course. (CAN PSY 2)

**121 Introduction to Child Psychology**

*Advisory:* English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skills Levels W5 and R5.

An examination of child growth and development from conception through adolescence, including environmental management and interpersonal relations with special emphasis on the pre-school years. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

**123 Adolescent Psychology**

*Advisory:* English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5.

An exploration of an explosive period in human development. Major goals of this course are to understand the stresses experienced during the teenage years, and to investigate methods of coping with the individual adolescent. Transfer Credit: CSU and/or private coll/univ.; UC.

**132 Psychology of Gender Roles**

*Advisory:* English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5.

This course examines the differences between the sexes, considers various approaches to the question of why differences in status, personality, and behavior exist. Explores the consequences of these differences, and examines the possibilities for personal and social change. Transfer Credit: CSU and/or private coll/univ.; UC.

**133 Psychology of Women**

*Advisory:* English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skills Levels W5 and R5.

Psychology of Women is designed for students seeking an associate degree or those seeking elective credit for transferring to the CSU or UC systems or any student interested in women's issues. The course explores the nature of women’s lives and the various roles that women play during their lives and takes an historical, ethnic and cross-cultural look at the treatment of women in the United States and abroad. Students examine women’s sexuality, health, life span development and socio-political status in the world today. Transfer Credit: CSU and/or private coll/univ.; UC.

**135 Marriage and Family Relationships**

*Advisory:* English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skills Levels W5 and R5.

Discussion and evaluation of behaviors of courtship, engagement, marriage and family life; the contribution of science to an understanding of these experiences and the options available. Transfer Credit: CSU and/or private coll/univ.; UC.

**137 Human Sexual Behavior**

*Advisory:* English 51 and English 56, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W5 and R5.

An exploration of the psychological, social, and physiological dimensions of human sexual behavior. The course will review specific theories and research findings, and consider their relevance for individual sexual development and functioning. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Psychology (PSYC) 137 and Black Studies 165: maximum credit, one course.
211 Learning
3 hours lecture, 3 units
Prerequisite: Psychology 101 with a grade of "C" or better, or equivalent.
Limitation on Enrollment: This course is not open to students with previous credit for Psychology 210.
Students learn the basic principles and research in animal and human learning. Subjects include scientific versus nonscientific approaches to behavior studies, operant and respondent conditioning, observational and cognitive learning, and motivation as related to self-control. Transfer Credit: CSU and/or private coll/uni.; UC.

230 Psychology of Lifespan Development
3 hours lecture, 3 units
Prerequisite: Psychology 101 with a grade of "C" or better, or equivalent.
This course is designed for students interested in studying the psychological development of humans in all their sociocultural diversity from conception to death. Students learn major theoretical positions related to growth and change. The course emphasizes the variety of factors that shape similarities and differences in life. Psychology majors wishing to transfer are advised to take this course. (FT) Transfer Credit: CSU and/or private coll/uni.; UC.

245 Abnormal Psychology
3 hours, 3 units
Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
A study of troubled patterns of behavior: their origins, characteristics and treatments. Transfer Credit: CSU and/or private coll/uni.; UC.

260 Introduction to Physiological Psychology
3 hours lecture, 3 units
Prerequisite: Psychology 101 with a grade of "C" or better, or equivalent.
Students learn about the physiological determinants of behavior. Subjects include behavior evolution, the nervous system, and endocrine glands as well as their relationship to perception, learning, motivation, emotion, and personality. Transfer Credit: CSU and/or private coll/uni.; UC. (CAN PSY 10)

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270).

Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.
This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

**SPANISH (SPAN)**

**101 First Course in Spanish**

5 hours, 5 units

*Advisory:* English 43 with a grade of "C" or better, or equivalent, or Assessment Skill Level W4.

*Limitation on Enrollment:* This course is not open to students with credit for or concurrent enrollment in Spanish 100.

This is an entry-level course designed to introduce students to the Spanish language and cultures of the Spanish-speaking world. In this interactive course, students learn and use the language by speaking, listening, reading, and writing at the novice level. Basic language structures and vocabulary for communication are examined and explored in Spanish.

(FT) Transfer Credit: CSU; UC. (CAN SPAN 2) (CAN SPAN SEQ A = SPAN 101 + 102)

**102 Second Course in Spanish**

5 hours, 5 units

*Prerequisite:* Spanish 101 with a grade of "C" or better, or equivalent.

*Limitation on Enrollment:* This course is not open to students with credit for or concurrent enrollment in Spanish 100.

This is a continuation of Spanish 101. In this interactive course, students use listening, reading, speaking and writing at a more complex level. Students further develop their receptive and productive competencies to the intermediate low or mid level. Additional language structures and vocabulary for communication are examined and explored in Spanish.

(FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Spanish (SPAN) 201, 202 combined with Chicano Studies 203, 204: maximum credit, one series. (CAN SPAN 8) (CAN SPAN SEQ B = SPAN 201 + 202)

**201 Third Course in Spanish**

5 hours, 5 units

*Prerequisite:* Spanish 102 with a grade of "C" or better, or equivalent.

*Limitation on Enrollment:* This course is not open to students with credit for or concurrent enrollment in Spanish 199 or 200.

This course is the first semester of an intermediate level study of Spanish. It stresses further grammatical development in Spanish beyond second semester through oral and written communication. It also provides increased practice in readings of culturally relevant authentic materials. Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Spanish (SPAN) 201, 202 combined with Chicano Studies 203, 204: maximum credit, one series. (CAN SPAN 8) (CAN SPAN SEQ B = SPAN 201 + 202)

**202 Fourth Course in Spanish**

5 hours, 5 units

*Prerequisite:* Spanish 201 with a grade of "C" or better, or equivalent.

*Limitation on Enrollment:* This course is not open to students with credit for or concurrent enrollment in Spanish 200.

This course is offered as an advanced intermediate level course. It reviews and furthers grammatical features in Spanish through oral and written communication within a cultural background. Readings of literary and/or culturally relevant authentic materials are examined in depth. (FT) Transfer Credit: CSU and/or private coll/univ. UC Transfer Credit: Spanish (SPAN) 201, 202 combined with Chicano Studies 203, 204: maximum credit, one series. (CAN SPAN 10) (CAN SPAN SEQ B = SPAN 201 + 202)

**210 Conversation and Composition Spanish I**

3 hours, 3 units

*Prerequisite:* Spanish 102 with a grade of "C" or better, or equivalent.

This course further develops oral comprehension and fluency as well as written communication at a mid-intermediate level in Spanish through culturally relevant materials. Students increase vocabulary, dramatize everyday topics of conversation, interpret and describe materials, and compare and contrast Latin American and Spanish cultures with U.S. culture both orally and in writing. Writing strategies are emphasized and literature is introduced. This course is intended for students who want to enhance their skills in the
Spanish language. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

211 Conversation and Composition Spanish II
3 hours, 3 units

Prerequisite: Spanish 210 with a grade of “C” or better, or equivalent.
This course further develops oral comprehension and fluency as well as written communication at an advanced-intermediate level in Spanish through culturally relevant materials. Students further increase vocabulary, dramatize everyday topics of conversation, interpret and describe materials, and compare and contrast Latin American and Spanish cultures with U.S. culture, both orally and in writing. Pre-reading strategies introduced in Spanish 210 are used as a basis upon which to build course emphasis in reading. More literature is introduced. This course is intended for students who want to further enhance their skills in Spanish. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

296 Individual Instruction in Spanish
1.5 - 6 hours lab, 0.5 - 2 units
Credit/No Credit Only

Limitation on Enrollment: Concurrent enrollment in a designated Spanish course is required. The instructor of the related course will supply Add Code to the student, which permits registration in the course. This is a supplementary course designed to reinforce student achievement of the learning objectives and is offered concurrently with a designated Spanish course. Learning activities may employ a variety of self-paced multimedia systems or laboratory or field research arrangements to assist students in reaching the specific learning objectives in the concurrent Spanish course. Transfer Credit: CSU and/or private coll/univ.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

Special Education
(See Disabled Students Programs and Services on page 223)
the catalog and class schedule. Transfer Credit: CSU and/or private coll/univ.; UC. (CAN SPCH 4)

104 Advanced Public Communication

3 hours, 3 units

Prerequisite: Speech 103 with a grade of "C" or better, or equivalent.
This course covers theory, practice and critical analysis of public communication, including speeches on subjects of current interest both local and global. It includes an introduction to the relationship between rhetorical theory and criticism and rhetorical practice in public communication (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

110 Introduction to Organizational Communication

3 hours lecture, 3 units

Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
The study and role of communication in the workplace. The course focuses on the theory and practice of communication in achieving organizational goals. Attention is given to developing intrapersonal and interpersonal skills for the workplace, meeting management, interviewing and presentational skills. The relationship between communication and leadership, conflict, corporate culture, gender and cultural diversity, team building, and workplace learning will be explored. This course may be divided into modules. Recommended for any student, new or returning, seeking gainful employment and advancement. (FT) Transfer Credit: CSU.

135 Interpersonal Communication

3 hours lecture, 3 units

Advisory: English 51 and English 56 with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5.
This course is designed to offer students an opportunity to investigate those areas of speech communication that are oriented toward interpersonal contexts. The course emphasizes understanding the idea of "self-concept" as well as understanding others. The class addresses the skills and strategies needed to communicate effectively both verbally and nonverbally. The class also addresses interpersonal issues such as relational development and maintenance principles, effective listening behavior, reducing defensiveness, and conflict resolution. The course is intended for students interested in studying interpersonal communication, particularly majors in communication, fashion, allied health and business. This course is also intended for all students who are interested in further development of effective interpersonal skills in the work, volunteer and personal environments. (FT) Transfer Credit: CSU and/or private coll/univ. (CAN SPCH 8)

160 Argumentation

3 hours, 3 units

Prerequisite: Speech 103 with a grade of "C" or better, or equivalent.
This is a course in the construction and analysis of argument. The course emphasizes the essentials of argumentation: theory, research, and analyses of propositions, tests of evidence, construction and application of arguments to everyday life and public policy. (FT) Transfer Credit: CSU and/or private coll/univ.; UC. (CAN SPCH 6)

170 Small Group Communication

3 hours, 3 units

Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and Speech 103 with a grade of "C" or better, or equivalent.
This course offers practical experience in the techniques of leading and participating in small group discussions. Small group techniques such as panels, symposiums, problem solving, conflict resolution, leadership skills and parliamentary procedures are covered. Community building through service learning is presented as a tool to creating collective consciousness and an altruistic philosophy. This course is designed for students intending to major in speech communications, business, international business, education, and all fields of study and certifications that require group and team building skills. (FT) Transfer Credit: CSU and/or private coll/univ.

180 Intercultural Communication

3 hours, 3 units

Advisory: English 51 and English 56, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5 and R5; and Speech 103 with a grade of "C" or better, or equivalent.
Intercultural communication is the study of communication between members of differing cultures. The discipline focuses on the relationship between culture and communication emphasizing social psychological variables, verbal and nonverbal language systems, cross-cultural communication breakdowns and conflict resolution. Practical application of intercultural communication principles to contemporary problems of
cross-cultural and international communication will be stressed. This course is designed for students intending to major in speech communications, international business, business education, social sciences, nursing, mass communications, and all fields of study and certifications that require cross-cultural contact and/or awareness of cultural distinctions. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270).

Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

TAGALOG (TAGA)

101 First Course in Tagalog

5 hours, 5 units

Advisory: English 43 with a grade of "C" or better, or equivalent, or Assessment Skill Level W4.

This course in Tagalog is the first in its language sequence. This is an entry-level course to the Filipino language and culture. In this interactive course, students use the language through speaking, listening, reading, and writing at the novice level. Basic language structures, appropriate forms of address, and vocabulary for communication are examined and explored. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

102 Second Course in Tagalog

5 hours, 5 units

Prerequisite: Tagalog 101 with a grade of "C" or better, or equivalent.

Advisory: Concurrent enrollment in TAGA 296. This course in Tagalog is the second in its language sequence. This course reinforces Filipino culture and Tagalog language concepts studied in the first semester course and introduces additional Filipino cultural and language structures at the low-intermediate level. This interactive course builds on the basic Tagalog language structures and adds new structures through speaking, listening, reading, and writing at the low-intermediate level of grammar mastery. (FT) Transfer Credit: CSU and/or private coll/univ.; UC.

Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270).

This discipline may offer specialized instruction in one or more of the following areas: Supervised Tutoring (044), Special Topics (265), Independent Study (290), Individualized Instruction (296), Service Learning (277), Applied Applications and Software Skills (045L), or Work Experience (270). Detailed course descriptions are listed on page 172. Please refer to the class schedule and/or see the dean or department chair for availability.

WORK EXPERIENCE, COOPERATIVE (WORK)

OCCUPATIONAL WORK EXPERIENCE is a program of on-the-job learning experiences for students employed in jobs related to an occupationally oriented major. The goals and assignments for completion of the courses are formulated with industry under the direction of the college instructor assigned to teach Work Experience 270. The grading system is the same as for other subjects offered by the college and the time spent for preparation and training is also comparable. Adequate records are maintained to determine satisfactory progress and attendance.

270 Occupational Work Experience (Parallel Plan)

Hours by Arrangement; 1-4 units

Grade Only

Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, including work experience. During summer sessions, one other course must be taken concurrently. Failure to complete seven units during Fall/Spring and/or other class during Summer session will result in course credit being denied and/or removed. A program of on-the-job learning experiences for students employed in a job related to an occupationally oriented major for which no work experience course is offered. One unit of credit is earned for each 75 hours of paid employment or 60 hours of volunteer work. This course may be taken four times for a maximum credit of 16 units. However, the combined maximum credit for all work experience courses from all disciplines may not exceed 16 units. Transfer Credit: CSU and/or private coll/univ.

272 General Work Experience (Parallel Plan)

Hours by Arrangement; 1-3 units

Grade Only

Limitation on Enrollment: Must obtain an Add Code from Work Experience Coordinator for registration. To receive credit a student must complete a minimum of seven units during the semester, including work experience. During summer sessions, one other course must be taken concurrently. Failure to complete seven units during Fall/Spring and/or other class during Summer
Session will result in course credit being denied and/or removed. A program of on-the-job learning experiences designed to assist the student in developing occupational effectiveness. Employment need not be related to a vocational or occupational major. One unit of credit is earned for each 75 hours of paid employment or 60 hours of volunteer work, with a maximum of three units per semester or summer session. This course may be taken twice for a maximum of six units. However, the combined maximum credit for all work experience courses from all disciplines may not exceed 16 units. Transfer Credit: CSU and/or private coll/univ.

274 Occupational Work Experience (Alternate Plan)

- Hours by Arrangement: 1-8 units
- Grade Only
- Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, including work experience. A student may not be concurrently enrolled in more than one other course. Eligibility for enrollment will be determined in accordance with applicable regulations contained in Title 5, California Administrative Code. This course consists of a program of on-the-job learning experiences which enable the student to attend college full time one semester and work full time the following semester. The work must relate directly to the student’s educational goal. The combined maximum credit for all work experience courses from all disciplines may not exceed 16 units. Transfer Credit: CSU and/or private coll/univ.

349I Equipment Mechanic Work Experience

- Hours by arrangement, 300 hours total, 4 units
- Credit/No Credit
- Corequisite: Diesel Technology 100.
- Advisory: English 43 and English 42, each with a grade of “C” or better, or equivalent, or Assessment Skill Levels W4 and R4
- Limitation on Enrollment: Student must be a state registered apprentice in this trade and concurrently enrolled in a related apprenticeship class. This course consists of on-the-job learning experiences in the occupational field of equipment mechanics. Student must be an indentured equipment mechanic apprentice and currently enrolled in a related apprenticeship class. The combined maximum credit for all work experience courses from all disciplines may not exceed 16 units. (FT) Associate Degree Credit.

APPRENTICESHIP - SAN DIEGO CITY CIVIL SERVICE (SDCS)
San Diego Miramar College Faculty
ADAMS, Steve D.
Aviation/Maintenance Technology
  A.A., Southwestern College
  A.S., Miramar College
  B.A., San Diego State University
  F.A.A., Inspection Authorization
  F.A.A., ASEL Private Pilot

ARENDE, Robert
   English
     B.A., Western Michigan University
     M.A., Trinity Seminary
     M.A., Northwestern University
     Ph.D., Purdue University

BACON, Robert C.
   Political Science/Physical Education
     B.A., Whittier College
     M.A., University of Southern California

BAKER, Judith
   Dean of SDCCD Online at Miramar
     B.A., The College of William & Mary
     M.S.W., Virginia Commonwealth University, School of Social Work
     Ph.D., The University of Texas at Austin
     Certified Health Education Specialist, The National Commission for Health Education
     Certified Online Instructor, Walden Institute
     Certified WebCT Trainer, WebCT

BENARD, Mary
   Dean of School of Technical Careers and Workforce Initiatives
     B.S., State University of New York, College at Buffalo
     M.B.A., University of San Diego

BLENIS, Clara E.
   English/ESL
     B.A., University of California, San Diego
     M.A., San Diego State University

BOCHICCHIO, Regina
   Physical Science
     Coursework at Universite d’Aix-Marseille, Aix-en-Provence, France
     B.A., McGill University, Montreal, PQ
     B.S., Colorado School of Mines
     M.S., Colorado School of Mines

BOOTH, Channing
   Music
     B.A., Berklee College of Music
     M.A., Boston Conservatory and Berklee College of Music

BOWLING, Ray
   Administration of Justice
     A.S., Grossmont College
     B.S., San Diego State University

BREWSTER, Lisa
   Speech Communications
     B.A., University of San Francisco
     M.A., San Francisco State University

BRUNJES, Ed
   Computer and Information Sciences
     B.S., San Diego State University
     M.Ed., Georgia State University
     M.S., National University
     Ed.S., Georgia State University

CARRIER, Greg
   English, Humanities
     B.A., Occidental
     M.A., University of California, San Diego

CASSAR, Rick
   Counselor
     B.A., University of Michigan
     M.S., San Diego State University

CHARLES, Michael W.
   Mathematics
     A.A., Imperial Valley College
     B.A., San Diego State University
     M.A., San Diego State University
     M.B.A., National University

CHARLES, Norris A.
   Mathematics
     B.A., Morehouse College
     M.B.A., Atlanta University
     Ph.D., U.S. International University

CHLAPECKA, Paul
   Aviation Maintenance Technology
     B.S., Lewis University
     M.B.A., Lewis University

COOKE, Larry
   Fire Technology
     A.S., Grossmont College
     B.A., San Diego State University

COONS, Steven
   Political Science/Black Studies
     B.A., San Diego State University
     M.A., Bowling Green State University

COPPEDGE, Deirdre
   Fine Art
     A.A., San Diego City College
     B.A., Otis Art Institute
     M.A., Otis Art Institute

CORLISS, Jodi
   Counselor
     A.B., San Diego State University
     M.S., San Diego State University

COUTURE, John J.
   Computer and Information Sciences
     B.A., National University
     M.B.A., National University

COSTIN, Ronald L.
   Business Education
     B.S., Northern Arizona University
     M.A. Northern Arizona University
     M.A., Pepperdine University
<table>
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<tr>
<th>Name</th>
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| **CUARON, Berta** | Dean of School of Business, Mathematics, and Sciences | A.A., San Bernardino Valley College  
B.A., California State University, San Bernardino  
M.A., Northern Arizona University |
| **DEEGAN, Pamela** | Vice President of Instruction                      | B.A., M.A., California State University, Los Angeles                                      |
| **DOBRE, Octavian (Otto)** | Business Education                                | B.A., University of California, San Diego  
M.A., San Diego State University  
M.B.A., San Diego State University |
| **DOORLY, Kathleen R.** | Disabled Student Services, Counselor            | B.S., Oregon State University  
M.A., Fresno Pacific University |
| **ELIAS, Peter John** | Child Development/Psychology                      | A.S., Grossmont College  
B.S. & B.A., San Diego State University  
M.S., San Diego State University |
| **FIGUEROA, Daphne E.** | Chemistry/Physical Science                        | B.A., Pt. Loma College  
M.S., University of California, San Diego  
Ph.D., Clairemont Graduate University and San Diego State University |
| **GARBER, Robert** | Vice President of Student Services                 | A.A., West Los Angeles College  
A.B., University of California, Berkeley  
M.A., University of California, Berkeley |
| **GARCES, Fred** | Chemistry                                           | B.S., San Diego State University  
Ph.D., University of California, Santa Barbara |
| **GEE, Gin** | Biology                                             | B.A., St. Bernadine of Sienna College  
M.A., State University of New York at Albany |
| **GHAFFARI, Parvine** | History                                             | B.A., University of Illinois  
M.A., University of Illinois  
Ph.D., University of Connecticut |
| **GLOW, Diane** | Articulation Officer                                | B.A., Western Michigan University  
M.S., Indiana University  
Ed.D., Indiana University |
| **GOODMAN, Vernal** | Auto Mechanics                                      | A.A., San Diego City College  
8 years experience |
| **GRAY, Ruth** | Counselor                                           | A.A., Orange Coast College  
A.B., San Jose State University  
M.S., San Diego State University |
| **GROSS, Mary** | English/ESOL                                         | B.A., California State University, Pomona  
M.S., California State University, Fullerton Certificate in Online Teaching, UCLA |
| **GULEFF, Virginia** | English, ESL                                         | B.A., San Jose State University  
M.A., San Diego State University |
| **HALLIDAY, Rich** | English                                             | B.A., Miami University  
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| **HARRIS, Judy** | Health Services                                     | B.S.N.R.N., University of Maryland  
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| **HARRISON, Prince Darrel** | Paralegal Studies                                  | L.A., University of San Diego  
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| **HART, Mary** | Librarian/Library Science                           | A.A., Grossmont College  
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A.S.E. Master Technician, L-1

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Instrument
Certified Flight Instructor-
Multi-Engine
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University

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D.A., Idaho State University

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B.A., City University of New
York
M.A., Brooklyn College
San Diego State University

WILLKIE, Dan
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A.S., San Diego Miramar College
ASE Certified Master Diesel
Technician

FACULTY/
ADMINISTRATION
EMERITUS
Joe Annino
James Cargill
Eugene Chamberlin
William Charman
Robert Crosby
Fredrick Deutsch
Daniel Dramer
Gisella Duarte-Cosman
Kenneth Fawcett
Fran Fehlman
S.M. Franklin
Rex Gorton
Stephen Greene
Eldon Hoover
Ralph Jacobs
Jerry LaFrance
Morris W. Magoski
Dale Matthews
Ray McFarlane
Dale Mathews
Joan Messenger
Jay Root
David Sanderlin
San Diego Miramar College Classified Employees
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<td>HARTZ, Scott</td>
<td>Bookstore Sales Clerk</td>
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<td>HERMANN, Jack</td>
<td>Custodial Crew Leader</td>
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<td>HERNANDEZ, Rey</td>
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<td>HILL, Kurt</td>
<td>Microspecialist Supervisor</td>
<td>Financial Aid</td>
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<td>HODGES, Margaret</td>
<td>Administrative Technician</td>
<td>Office of Instruction</td>
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<td>HOLLIS, Denise</td>
<td>Student Assistance Technician</td>
<td>Dean of Public Services</td>
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<td>HUBBARD, Terrie</td>
<td>Administrative Technician</td>
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<td>HUNT, Margaret</td>
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<td>HUTSON, Hazel</td>
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<td>HUYNHY, An</td>
<td>Instructional Lab Technician</td>
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<td>IDANO, Tito</td>
<td>Irrigation Technician</td>
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<td>IRINGAN, Lina</td>
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<td>Senior Clerical Assistant, Public Services</td>
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<td>KINGSLEY, Mary</td>
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<td>KINLEY, Roy</td>
<td>Gardener/Groundskeeper</td>
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<td>Athletics Groundskeeper</td>
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<td>Gardener/Groundskeeper</td>
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<td>LE, Daisy</td>
<td>Network Specialist</td>
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<td>LE, Dam Van</td>
<td>Instructional Lab Technician</td>
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<td>Student Services Assistant</td>
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<td>Senior Offset Press Operator</td>
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<td>Instructional Lab Technician</td>
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<td>Director, Administrative Services</td>
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<td>Gardener/Groundskeeper</td>
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<td>Food Service Supervisor</td>
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<td>Instructional Support Supervisor</td>
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<td>Bookstore Location Supervisor</td>
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<td>Student Assistance Technician</td>
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<td>NEAL, Marcia</td>
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<td>NELSON, Alice</td>
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<td>NGUYEN, Tam Quy</td>
<td>Media Clerk</td>
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Directions

From I-8, West: Exit Rosecrans. Proceed west to Nimitz Blvd., turn left. Continue to North Harbor Dr., Make U-turn on North Harbor Dr. at Airport Terminal #2 entrance. Watch for signs to Camp Nimitz, right turn.

From I-5, South: Exit Sassafras St. /Airport turn right on Laurel St. Stay right and merge onto North Harbor Dr. Watch for signs to Camp Nimitz, right turn.

From I-5, North: Exit Hawthorn St. /Airport to North Harbor Dr., right turn. Watch for signs to Camp Nimitz (right lane).

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