Summer Sessions 2002
June 3  Day or Evening Summer Session Classes Begin
June 17  Day or Evening Summer Session Classes Begin
July 1  Day or Evening Summer Session Classes Begin
July 4  Holiday (Independence Day)

Fall Semester 2002
August 19  Begin Fall Classes
September 2  Holiday (Labor Day)
October 25  Deadline to Apply for December Graduation
November 11  Holiday (Veterans Day)
November 28-29  Holiday (Thanksgiving)
December 12-20  Final Exams - Refer to Fall Schedule of Classes
December 20  Fall Classes End
December 21-January 12  Winter Recess

Spring Semester 2003
January 13  Spring Classes Begin
January 20  Holiday (Martin Luther King Day)
February 14  Holiday (Lincoln's Birthday)
February 17  Holiday (Washington's Birthday)
February 28  Deadline to Apply for May Graduation
April 21-27  Spring Recess
May 19-28  Final Exams - Refer to Spring Schedule of Classes
May 26  Holiday (Memorial Day)
May 28  Spring Classes End
May 29  Graduation

For more detailed registration information, refer to the Schedule of Classes or college website.

College Campus Locations

Liberal Arts Campus  Pacific Coast Campus
4901 East Carson Street  1305 East Pacific Coast Highway
Long Beach, California 90808  Long Beach, California 90806
(562) 938-4111  (562) 938-3903

Off-Campus Location:
Lakewood Extension Campus  Office of Economic Development
4401 Briercrest Avenue  3950 Paramount Boulevard, Su 101
Lakewood, California 90713  Lakewood, California 90712

For Other Off-Site Locations Contact:
Office of Extended Instruction  (562) 938-4810

Accreditation
Long Beach City College is accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges, (3402 Mendocino Avenue, Santa Rosa, CA 95403, (707) 569-9177), an institutional accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation and the U.S. Department of Education.

Curriculum Offerings
The college reserves the right to determine which of the courses listed in the catalog are to be offered in each semester. Changes in curriculum or course content may occur after the information cut-off date of this catalog, April 2002.

Schedule Of Classes
Long Beach City College publishes a schedule of classes before the beginning of each semester indicating each course to be offered. Schedules are available for sale in the college bookstores, local 7-Eleven stores and for review in the Counseling Center, the college website (http://www.lbcc.edu) and other campus locations. Changes in curriculum offerings or in fees charged may occur after printing.

In compliance with Section 508 of the Workforce Investment Act of 1998, the Long Beach Community College District provides the catalog and other college publications in alternative formats. If you are an individual who requires special assistance and would like materials in an alternative format, contact the Disabled Students Programs & Services department at (562) 938-4558 or (562) 938-4833 TDD. The Disabled Students Programs & Services department is located on the Liberal Arts Campus (LAC), located at 4901 E. Carson St., Long Beach, CA 90808.
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College Vision and Mission

2020 Vision

Long Beach City College prepares students to be successful in the world of the 21st century. Sitting at a global crossroads, the college constantly crafts its educational programs to meet the needs of students living in: a world of increased complexity and speed; a world both global and remarkably accessible and a world technologically advanced but intensely interdependent. A culturally diverse college, Long Beach City College welcomes all people who desire to grow and serve. The college nurtures a vibrant environment that cultivates a passion for learning which continues for life.

Mission

Long Beach City College is an institution of higher education within the California Community College System. As a comprehensive college, Long Beach City College provides quality, affordable educational programs and related student services to those who can benefit from the programs the college offers. Through a collegiate experience and with an open door admissions policy, the college fosters the development of individual potential and is responsive to the diverse educational needs of the community it serves. The primary purposes of the education program are to prepare students for transfer to baccalaureate-granting institutions, entry into work or career development and to support business and industry in economic development. Long Beach City College offers general education and vocational education at the lower division level and transitional instruction and those support services that promote student success—remedial education, English as a second language instruction, adult noncredit courses and student support services. College programs and services educate citizens to enrich the quality of life in the community.

To fulfill this mission, the college will assist students in the following ways:

To find, enter and progress in careers suited to their interests and goals.

To develop techniques and devices for problem-solving to reach decisions and goals.

To develop an understanding of and appreciation for the scientific and technological basis of our civilization.

To develop the skills of communication needed to act within the framework of a society based on information and service.

To establish acceptance, preference and commitment to values that lead to the attainment of self-esteem and self-respect.

To develop and intensify an appreciation and understanding of the aesthetic qualities of life.

To develop an understanding of the great diversity of human cultures and heritages and a respect for the intrinsic value of life in all its forms.

To develop the ability to cooperate and work with individuals and groups.

To develop the attitudes and techniques needed to use time effectively and creatively.

To encourage the development of attitudes, knowledge and skills that promote physical and mental health.

To promote respect for truth, confidence in attaining goals and enthusiasm for learning as a life-long process.

To promote and encourage the utilization of the various tools of education in developing a sense of commitment toward responsible citizenship and an appreciation of the processes which sustain our society.

To recognize that close student-faculty-staff relationships contribute to a motivated and supportive atmosphere for learning and working.

College Functions

Transfer

The first two years of courses satisfying either the general education or major requirements for a four-year college (Baccalaureate) degree in the University of California system, California State University system or other colleges and universities to which our students commonly transfer.

General Education

A community college (Associate) degree, which includes a broad general education and selected fields of concentration most appropriate to the educational and occupational needs of our community.

Occupational Education

Specialized education and training in selected occupational fields leading to job skills preparation, promotion, retention and certification.

Developmental Education

Educational and learning assistance to help students succeed in a community college program once they have demonstrated minimum communication and computational levels.

Support Services

A multifaceted support program to assist students to assess their abilities and to establish and achieve realistic educational and career goals.

Beyond the Classroom

An appropriate co-curricular program including practical educational experiences, as well as opportunities for growth in leadership and citizenship.

Life-Long Learning

Selected continuing education programs and courses that are cost effective and provide life-long learning and training opportunities.

Economic Development

The Office of Economic Development provides workforce preparation programs and services to individuals to develop entry-level skills, new technical skills, career advancement and to regional industry to ensure business attraction, retention and global competitiveness.
College History

Long Beach City College is a two-year community college located in Long Beach, California. It is one of the largest of the 108 community colleges in California, and serves the same area as the Long Beach Unified School District, encompassing the cities of Long Beach and Signal Hill, two-thirds of Lakewood and Santa Catalina Island.

The college has 28,000 students and is governed by a five-member, elected Board of Trustees. It offers two-year, associate degree courses in business, health, services, trade and technical and liberal arts fields; one-year, vocational certificates in occupational trades and courses that transfer to four-year universities or offer job skills.

Long Beach City College has received state awards for its registered nursing and child care programs and is widely known for its extensive and technologically-advanced commercial music and electronics programs. It has special training partnerships with several corporations, including a diesel mechanics training program with Caterpillar.

The national newspaper, Community College Week has reported that Long Beach City College is one of the largest and most effective community colleges in the nation. In 1993, a study found that only nine other two-year colleges in the nation award more associate degrees to minority students than Long Beach City College, according to the magazine, Black Issues in Higher Education.

The college was founded in 1927, and initially housed at Woodrow Wilson High School until the 1933 earthquake, which destroyed the building. Classes were held outside and in tents at neighboring Recreation Park until the college moved to the site of its present-day Liberal Arts Campus at Carson Street and Clark Avenue in 1935.

From its earliest days, the college established traditions that are alive today, such as the mascot, Ole and team name, Vikings. A student newspaper, yearbook, and social, service and intramural programs were launched in the first year. Academic honors included having a library that was viewed as a model nationally and the state’s top junior college debate team. Athletic honors included southern California championships in wrestling, baseball, men’s and women’s swimming and the state championship in men’s basketball, all in the 1928-29 school year.

The college grew rapidly during and after World War II and added the Pacific Coast Campus, formerly Hamilton Junior High, in 1949. Numerous extension campuses and satellite locations were added as growth continued into the early 1970s. As a result of state law, the college separated from the Long Beach Unified School District. Retrenchment occurred during the late 1970s and early 1980s as Proposition 13 forced the end of many popular classes and services.

Changes in the workplace, and in the community’s demographics, brought about rapid changes in the mid-1980s. The influx of Southeast Asian refugees led to extensive courses in English as a Second Language and other programs to assist and acculturate this burgeoning population. A later wave of amnesty applicants ensured that ESL stayed the college’s largest program. The amnesty program garnered awards as a state model.

Computers entered nearly every instructional program necessitating acquisition of new equipment and revisions to curriculum. Apple Computer presented Long Beach City College with one of 10 grants nationally for its extensive commitment to computer technology.

In 1987, the college completed a decade of negotiations with the City of Long Beach to acquire the neighboring Veterans Stadium. Through the sale of surplus land to another neighbor, McDonnell Douglas (now Boeing), the college was able to finance the $3 million in renovations required to upgrade the facility. The college’s adapted physical education then moved to modernized facilities under the stadium. In 1992 the college celebrated completion of these and other projects, including an all-weather track and redesigned athletic fields.

Within the last five years the college has completed a multi-million dollar upgrade of its Pacific Coast Campus and renovation of the art and music, radio and television facilities at the Liberal Arts Campus.

Long Beach City College students also have access to more than 65 computer-based learning classrooms with full internet connection and a state-of-the-art math and science building which opened with the beginning of the 2000 fall semester.

Extended Instruction/Off-Campus Programs

Off campus classes are offered at several community sites to facilitate student access to a variety of course offerings. These sites enable students to attend classes at convenient locations near their homes or work. Many evening classes are offered at Lakewood High School.

Students can enroll for these classes through the regular college registration process or by “walk-in” classroom registration during the first class meeting. For further information, consult the schedule of classes or call (562)938-4810.

Senior Studies Program

The Senior Studies Program offers courses specifically designed for the needs and interests of mature students. Stimulating noncredit classes are available. Special theater programs, seminars, a campus senior club and mini tours are designed for the active adult (55 and older). The Senior Center, located at the Pacific Coast Campus, Room FF108, is open from 8 a.m. to 3 p.m., Monday-Thursday, and 8 a.m. to 1 p.m., Friday. Special assistance is given during registration and counseling is available. For further information, call (562)938-3048.
Distance Learning
Online/TeleWeb courses offer students an opportunity to take a variety of courses at a time and place convenient to them. Students access these courses at home or at other off-campus sites through a personal computer with Internet access or can make use of the college’s open access labs to log on to the course(s) web site(s). These course offerings are entirely web based and do not require students to be present on campus. TeleWeb courses, in addition to online course requirements mentioned above, require access to TV/Public Broadcast Stations (PBS) and/or LBCC Cable station.

Students can enroll for these classes through the regular college registration process or by accessing the college’s web site for downloading registration documents. For further information consult the schedule of classes or call (562)938-4025.

Televised Instruction
Televised courses offer students an opportunity to take a variety of courses at a time and place convenient to them. Students access these courses via TV at home or at other off-campus sites through Public Broadcast Stations and/or LBCC cable station (check channel numbers with your cable company). On-campus meetings for these courses are limited or conducted through a teleweb portion of the class. Televised courses are accompanied by a Website to provide access to course information, as well as communication and practice opportunities. Students may use the college Open Access computer labs to access the Web site.

Students can enroll for these classes through the regular college registration process. For further information consult the schedule of classes or call (562)938-4025.

Weekend Classes
Saturday morning classes meet each week during the semester. These classes involve academic, general education and vocational subjects. Students earn credits toward certificates and degrees. Enroll by routine college registration or during the first class meeting.

For further information, call (562)938-3904, Monday-Friday, 8 a.m.-5 p.m. and Saturday, 8 a.m.-12 p.m.

Accelerated College Education (ACE)
ACE (Accelerated College Education) is a two-year curriculum offered at the Pacific Coast Campus of Long Beach City College to meet the needs of busy people. This program is designed to satisfy the lower division, general education requirements for the Associate of Arts degree from Long Beach City College. CSU Dominguez Hills continues the format at the junior level in their Interdisciplinary Studies major. Classes are scheduled from 6-8 p.m. and from 8-10 p.m. on a week night and on Saturday from 8 a.m.-12 p.m. and 12:4-3:30 p.m.

Honors Program and Courses

For nearly 75 years, Long Beach City College has established innovative educational programs to serve the public. In 1980, the college established the Honors Program to better serve high-ability, high-achieving students. Today, the program is an important element of the college’s curriculum, and its graduates have proven records of success in professional and graduate schools, as well as at the baccalaureate level.

Major benefits of the program include Scholarships, Transfer Programs agreements and President’s Scholar and Academic Senate Scholar Awards.

Rotary Club Honors
Each year Rotary Club Honors Scholarships are available to entering Long Beach City College students who graduate from area high schools. Awarded on the basis of a student’s academic record and potential, these scholarships require students to have met the “a through f” subject requirements for entry into the University of California with a GPA of 3.5 or better (correspondingly high scores on the SAT or ACT are also necessary).

In addition, the Long Beach City College Foundation awards $150 scholarships to all graduates of Long Beach high schools who have a 3.5 or higher cumulative grade point average during the previous six semesters and who enroll at Long Beach City College.

Transfer Programs
The LBCC Honors Program is a member of the UCLA, UCI, UCR, UCSC, CSUDH, CSUF (Honors) CSULB (Honors), SDSU (Honors), Chapman University, Occidental College, Pepperdine University, Pitzer College, Pomona College and Whitman College Transfer Programs and can offer its graduates “guaranteed priority admission” to these universities for the Baccalaureate Degree. For further details about these and developing alliances, contact the Honors Program Office at (562)938-4354.

President’s Scholar Honors
The President’s Scholar designation with associate degrees is awarded in recognition of outstanding achievement in the college’s Honors Program.

I. To qualify, a student must complete a minimum of six Honors courses with a 3.5 or higher GPA. (Minimum units required: 15).*

In addition, a student must maintain a Long Beach City College cumulative GPA of 3.5 or higher with at least 80 percent of all units attempted in courses numbered 1-99. A student must also satisfy the college’s “units in residency” requirement.

*NOTE: Exceptions to the total number of units required and to the 80 percent rule may be made at the discretion of the Honors Program Committee.

II. The President’s Scholar designation is entered on the transcript, next to the associate degree notation. In addition, qualifying students receive a gold seal on their diplomas and are given special recognition at commencement. President’s Scholars are
the first to receive their diplomas and are awarded medallions which they wear at graduation.

III. As part of the President’s Scholar award, students customarily receive a cash scholarship at graduation.

Academic Senate Scholar Honors
The Academic Senate Scholar designation upon transfer is awarded in recognition of outstanding achievement in the college’s Honors Program.

I. To qualify, a student must complete a minimum of six Honors courses with a 3.5 or better GPA.

In addition, a student must maintain a Long Beach City College cumulative GPA of 3.5 or higher with at least 80 percent of all units attempted in courses numbered 1-99.* A student must also satisfy the college’s “units in residency” requirement.

The Academic Senate Scholar designation is entered on the transcript after a student has completed the 60 units required for transfer.

*NOTE: Exceptions to the total number of units required and to the 80 percent rule may be made at the discretion of the Honors Program Committee.

II. As part of the Academic Senate Scholar award, qualifying students will receive a certificate of recognition for this achievement.

Honors Student
The Honors Student designation is awarded to all transfer students that complete the Honors Program successfully.

To qualify, a student must have completed a minimum of six Honors classes, a minimum of 15 units, with a 3.0 GPA or higher.

In addition, a student must maintain a Long Beach City College cumulative GPA of 3.0 or higher with at least 80 percent of all units attempted in courses numbered 1-99. A student must also satisfy the college’s “units in residency” requirement.

The Honors Student designation is entered on the transcripts after the student has completed the 60 units required for transfer.

Honors Courses
General education Honors courses have as few as ten students and offer more intensive study than is normally possible. Over the years, Anatomy 1, Anthropology 2, Art 1, Art 2, Art 3, Art 4, Art 11, Biology 20, Biology 41, Economics 1A, English 1, English 3, English 44, English 45, English 48, Geology 1, Geology 3, German 3, German 4, History 1A, History 1B, History 2C, History 8A, History 8B, Humanities 1, Math 37, Music 40, Philosophy 6, Political Science 1, Psychology 1, Social Science 1 and Statistics 1 have been offered as Honors courses.

In addition, Honors courses sometimes offer an extensive approach to knowledge by considering the interconnections between disciplines and fields of knowledge. Guest speakers and field trips enhance this approach. Other extensive possibilities are available because many Honors classes are scheduled with instructors from different disciplines working together to encourage students to explore multi-disciplinary concerns as they fulfill the general education requirement.

If you have any questions, please call (562)938-4354.

Admission Requirements for Newly Enrolling Students
Students enrolling at Long Beach City College for the first time should have the following grades (overall GPA) and test scores (SAT, ACT or the equivalent) and are qualified for English 1 to qualify for the Honors Program:

<table>
<thead>
<tr>
<th>GPA</th>
<th>SAT TOTAL*</th>
<th>ACT</th>
</tr>
</thead>
<tbody>
<tr>
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<td>20</td>
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<tr>
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<tr>
<td>3.3</td>
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<td>27</td>
</tr>
<tr>
<td>3.25</td>
<td>1175</td>
<td>27</td>
</tr>
</tbody>
</table>

*NOTE: Students who meet both criteria (GPA and test score) are qualified for the Honors Program. Students whose test scores are lower than specified may be deemed qualified after a review of their application (including essay and letters of recommendation).

Admission Requirements for Currently Enrolled Students
Students currently enrolled at Long Beach City College qualify for the Honors Program if they have a 3.25 overall GPA on fifteen or more college units (at least 80 percent in courses numbered 1-99) and are qualified for English 1.

Continued superior academic achievement is required to remain in the Honors Program. A minimum 3.0 GPA is required in addition to completion of program requirements.

Some Benefits of the Long Beach City College Honors Program
• Merit Scholarships for entering students from local high schools
• Access to special research sources
• Free UCLA, UCI, CSULB library card
• Faculty mentors
• Honors academic counseling
• Informal degree checks
• Invitation to special honors forums, seminars and social events
• Participation in National Collegiate Honors Council (NCHC)
• Letters of recommendation, including a statement of the goals of the Honors Program and an evaluation of the student’s participation in the program
Matriculation is a process which brings together the college and a student who enrolls for credit into an agreement for the purpose of realizing the student’s educational goal through the college’s established programs, policies and requirements. Matriculation services include registration, orientation, assessment, counseling, post-enrollment evaluation and referral of students to services. The student is expected to participate in these services unless he/she requests a waiver from a particular service.

I. College’s Responsibility
In accordance with the matriculation agreement, the college agrees to provide guidance to students by evaluating basic skills, helping to place students in courses where they will encounter the greatest possible success, aiding them in developing realistic educational plans and providing the services to assist the student in achieving his/her goals.

II. Student’s Responsibility
a. All new non-exempt students must complete assessment and orientation before they enroll in their second term. If the student has not completed the assessment and orientation processes at that time, he/she will not be able to register until assessment and orientation are completed. All students affected by this policy will be notified by letter during their first term, if they have not completed these processes.

b. The agreement calls for the student’s expression of at least a broad educational intent at admission and the willingness to declare a specific educational objective by the semester after he/she has completed fifteen units of degree applicable credit coursework. Diligence in class attendance, completion of assigned coursework and maintenance of progress toward an educational goal are expected.

III. Components of Matriculation
Matriculation is composed of the following components to ensure student success:
*Admission to the college
*Assessment of English, math, reading (SOAR) and English as a Second Language skills
*Orientation to the college’s programs and services
*Counseling to receive assistance with course selection and planning of an educational goal.

Other Student Services are available to assist students in attaining an educational goal (See Page 12 of catalog for description of student services):
- EOP&S - Financial Aid - Health Center
- Job Placement - Transfer Center - DSPS
- Learning Center - Career Planning - Tutoring

*THESE COMPONENTS ARE REQUIRED OF ALL STUDENTS TO BE FULLY MATRICULATED. (See V. for exemptions)

IV. Matriculation Requirement
Admission, Orientation and Assessment. All new non-exempt students must complete assessment and orientation before they enroll in their second term. If the student has not completed the assessment and orientation process at that time, he/she will not be able to register until assessment and orientation are completed. All students affected by this policy will be notified by letter during their first term, if they have not completed these processes. (see V. below) The assessment test (SOAR) is required of any student who falls under one of the following categories:

a. All new, non-exempt (see below) students.
b. Students who want to enroll in any English composition, reading or math course.
c. Students who want to use this option to fulfill their associate degree math or reading proficiency.
d. Students who are financial aid recipients, including Extended Opportunities Programs and Services.
e. Candidates for any of the Nursing and Health Technologies programs.
f. Students wishing to fulfill English and/or math prerequisites as specified by a department program.

V. Matriculation Component Exemptions

a. Orientation - Students who are exempt from the matriculation service of orientation are those students who hold associate degrees or higher, or those students who demonstrate that they are taking courses only for personal enrichment or those students who are co-enrolled at a four-year college or university or those students who are enrolled only in:

1. Performance or activity classes.
2. Classes for advancement in current job/career (update job skills).
3. Distance education classes.
5. Non-Credit classes.

b. Assessment - The exemptions for orientation apply to the assessment component, unless a student plans to take a math, reading, English or English as a Second Language class and has not met the prerequisite. The assessment component for math, reading and writing can be partially met with documentation of coursework from another accredited college or high school.

VI. Matriculation Component Appeal/Waiver Process and District Policies of Handling

a. Admission - All students must participate in this component; there is no waiver process.

b. Orientation, Counseling and Assessment - Any student who feels that he/she is exempt from any of these components may appeal by filing a Matriculation Component Waiver form, which is available in the Assessment Office. These exemptions do not provide clearance for enrollment into specified English, math, reading or ESL courses. The waiver will be reviewed by the Matriculation Specialist and the student is then notified of the decision by mail. A student may request to participate in a previously waived component by contacting the Matriculation Specialist.

c. College Assessment Test -

1. Retest Policy: A student may retake any part of the College Assessment Test (SOAR) after a five-month period has passed.

2. Appeals of Initial Placement Recommendation: A student may appeal an initial placement recommendation in English, math, reading or ESL by completing the Placement Appeal form available at the Assessment Center, Counseling Office or the respective department. The student will be notified of the appeal decision by mail.

VII. Student Rights and Matriculation

A student may file a complaint against Long Beach City College matriculation practices by filing a complaint form, which is available at the Assessment Office. Complaints will be filed with the Dean of Counseling and Student Support Services, who is responsible for investigation and resolution of such complaints. The Dean will maintain a file on all formal complaints.

Student Grievance Policy

Long Beach City College is committed to resolving problems students may be encountering while working within the guidelines and policies established by the state of California and the Board of Trustees. For specific information on both the policy and process for student grievances, contact the office of the Dean of Student Affairs.

Procedures For Application To School of Health and Science Programs 2002

Applications for 2002 School of Health and Science Programs are accepted on a continuous basis. Qualified applicants will be accepted on the basis of date of application and number of required general education courses taken. Applications are carried over if there are more applicants than can be admitted. All applicants are encouraged to attend information sessions.

English as a Second Language Applicants
Applicants for whom English is a second language are encouraged to attend an information session for additional counseling. All applicants are encouraged to attend information sessions. (See current application procedure on back of curriculum guide, available in Division Office, Room C100, at LAC).

**High School Graduates (2001)**

Students in their senior year may apply as specified above.

**International Student Program/Admissions**

Long Beach City College encourages students from other countries to enroll. International student tuition is $149 per unit, subject to change. In addition, there is a student body fee, optional parking fee and a mandatory health fee.

Students may live in an apartment, with relatives or friends or with an American family in a homestay. The prices range widely. Contact the International Student Office for assistance. There is bus transportation directly to campus from throughout the community.

Through the college’s International Students Club, members plan local trips, parties and other events that help international students make friends, learn about other cultures and explore Southern California activities and attractions.

**How to Apply:**

Request an application packet containing the forms you need from:

Long Beach City College
Attention: International Student Admissions
4901 East Carson Street
Long Beach, CA 90808 USA

Complete and return your application, along with a $25 application fee. Application materials must be completed by July 1 for the fall semester and November 1 for the spring semester. The form I-20 will not be issued until all requirements are met. Those applicants who have properly submitted all necessary forms will be accepted in order of completion until the semester begins.

Your completed application file should contain:

1. A TOEFL test score. English proficiency, indicated by a score of 500 or better on the Test of English as a Foreign Language (TOEFL), is required to be considered for admission. Request a test application form from:

   TOEFL - Educational Testing Services
   Box 899
   Princeton, New Jersey 08540 USA

2. A financial statement, to comply with U.S. immigration requirements, showing access to sufficient funds to pay college and living expenses for the duration of your studies. Submit the College Financial Statement form with your application. The approximate cost per school year is $12,700 in U.S. dollars. The financial statement must be filled out using U.S. dollars.

3. Transcripts showing academic preparation equivalent to receipt of a U.S. high school diploma, which is twelve years of elementary and secondary school. Please request that official copies of your transcripts be sent to the college. They should show all courses taken in the last three years of second-ary school, the grade received in each course, grading method, the minimum passing grade allowed and the date of your completion of second-ary school. Transcripts for any college classes completed must also be supplied. All must be translated into English and notarized before being submitted.

4. Proof of medical insurance must be on file within one month of the start of classes. Such insurance must be maintained throughout enrollment at the college. Applicants must provide proof of not having tuberculosis.

5. An F-1 Visa Status application form must also be signed and returned directly to the college.

**American Language and Culture Institute**

Long Beach City College’s American Language and Culture Institute combines instruction for men and women at all levels of English proficiency with exposure to Southern California’s dynamic blend of arts, sports, entertainment and business.

Whether you want to master English to take a TOEFL exam, attend a U.S. university, travel in English-speaking countries or for your business or career, the Long Beach City College American Language and Culture Institute is for you.

Students, business people, professionals and others will benefit from this strong program of language acquisition enhanced by the opportunity to learn about U.S. culture and customs.

The American Language and Culture Institute offers the opportunity to acquire or improve English language skills rapidly through intensive study, augmented by individualized computer instruction. Adults of all ages and levels of proficiency will be able to benefit.

Nine-week sessions are held throughout the year. Classes are conveniently scheduled early in the day to permit free time to explore Southern California’s many attractions.

**Registration Procedures**
You are responsible for officially registering in classes. A registration receipt is proof of enrollment. You may not attend a class unless you are properly registered in that class. Registration may be done over the phone or on a walk-in basis. See the Schedule of Classes for the semester in which you wish to enroll to learn about registration dates, times and instructions.

You are also responsible for officially dropping classes and must do this at the Admissions and Records Office.

**Fees, Tuition and Other Expenses**

Students must pay all fees and tuition at the time of registration unless otherwise indicated. All students are required to purchase their own books and regular supplies. All fees are subject to change after the printing of the schedule of classes.

A $15 fee will be charged for all returned checks. Under Assembly Bill 1226, any person who writes a check dishonored for lack of funds is civilly liable, and under the law is liable for three times the amount of the check plus the face value of the check.

**Nonresident Tuition:** U.S. citizens who have been classified as non-residents (see residence section), shall be required to pay nonresident tuition at the rate of $142 per unit (rate subject to change without notice). The non-U.S. citizen rate is $149 per unit.

**Books, Supplies and Course Materials Fees:** You must purchase all books and many of the supplies required by instructors of the classes in which you enroll. If your class has a materials fee, it will be printed in the schedule of classes and that fee must be paid during registration. When possible, the bookstore sells used books at reduced prices. The bookstore generally stocks the supplies you may be required to purchase.

**College Services Card Fee:** This optional fee, administered by the Associate Student Body, underwrites many of the services, programs and extracurricular classroom experiences that otherwise cannot be provided. Some of these services include: telephone registration, scholarships, five percent discount on textbooks, on-campus check cashing, bus pass purchases, legal advice, accident insurance, theatre, music and athletic events. The College Services Card fee is $15 for fall and spring and $10 for summer sessions.

**Student Health Fee:** All students enrolling in credit courses must pay a health fee to support student health services. The fee, $12 each semester and $9 each summer session, also supports short-term psychological counseling and student accident insurance.

**Parking Fee:** Students must purchase a parking pass if using on-campus parking. The parking fee for automobiles or motorcycles is $25 for students during the fall or spring semester. For students receiving financial aid, the fee is $20. The fee for all students during summer sessions is $15. Citations are issued starting the third week of each semester for vehicles not displaying a valid parking permit.

**Printing Fee:** A printing fee of $.10/page will be charged for each page duplicated in the open access labs and library on campus. Students are welcome to save the information to a disk to print at home or take to another source for duplicating.

**Indebtedness:** The college cannot extend credit for expenses. In the event that the student becomes indebted to the college due to library fines, books or athletic equipment damage or loss, student loan defaults, breakage of equipment, bad checks, failure to meet attendance regulations involving veteran support or financial aid or for any other reason, the college may deny further enrollment, refuse to release transcripts and refuse to release information to potential employers or other agencies until all indebtedness has been cleared.

**Refunds**

For purposes of this section, the “first week of instruction” is the first week scheduled in that class in that semester, not necessarily the first week of student enrollment or attendance.

**Service Charge:** $10 shall be charged for processing each refund transaction except for those resulting from the cancellation of a class by the college or overpayment of fees.

Long Beach City College will determine the amount of federal financial aid that a student has earned in accordance with federal law. Students who receive federal financial aid and do not attend any classes will be required to repay all of the funds they received. Students who withdraw from all classes prior to completing more than 60 of the semester will have their financial aid eligibility recalculated based on the percentage of the semester completed and will be required to repay any unearned financial aid they received.

At LBCC a student’s withdrawal date is:

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

Long Beach City College does not have leaves of absence.

**Transfer Rules and Refunds**

Students may transfer from one class to another within the same academic discipline upon the approval of the instructors involved. Transfers shall not be considered withdrawals.
Definition of a Course Transfer: After the refund/transfer period, transfers may only be made between classes in the same academic discipline. Furthermore, transfers will only be allowed under the following conditions:

1. Both classes are of equal length and start in the same week.
2. The class from which the transfer is being made is shorter than the new class and both start in the same week.
3. The class from which the transfer is being made is longer than the new class and both end in the same week.

Fee Refund/Transfer Period: In order to receive a refund or transfer enrollment fees or nonresident tuition from one class to another, students must officially withdraw or transfer within the period defined below. Transfer of fees and tuition will be made at the 100 percent rate; refunds will be 100 percent less the service charge of $10. The period depends on the length of the class, regardless of when the student enrolls.

1. For classes that are scheduled for the entire semester, the refund/transfer period is the first two weeks of the semester. After the second week, no refund can be made and transfers may only be made within the same academic discipline provided that permission is granted by the instructors.
2. For all other classes that are scheduled for shorter or longer periods of time than the regular semester, the refund/transfer period is the first ten percent of the total scheduled class meetings, excluding holidays. After ten percent of the scheduled class meetings have passed, no refunds can be made and transfers may only be made within the same academic discipline provided that permission is granted by the instructors.

Nonresident tuition, health fees, materials fees and enrollment fees will be automatically refunded to students who officially withdraw or transfer during the refund period. After this period, they will not be refunded. All refunds except those caused by cancellation of classes are subject to a service charge of $10.

In the case of a verified military withdrawal, enrollment fees will be refunded with no service charge, provided no academic credit is earned.

College Services Card and Parking Fees will be refunded from the ASB Bank within the refund/transfer period defined above. After this time there are no refunds. All requests must be accompanied by the College Services Card and/or parking permit. No refunds will be granted without the appropriate documentation.

Appeal for Refund Due to Special Circumstances
1. The Dean, Admissions and Records, and Registrar shall consider all appeals for refund of tuition and enrollment fees.

2. The Dean, Student Affairs, shall consider all appeals for refund of College Services Card and parking fees.

Change of Address

Change of address or name must be reported immediately to the Admissions and Records Office to ensure that the student’s grades and transcripts are correct. Change of address for payroll purposes is made in the Fiscal Affairs Office to ensure correct delivery of paychecks and W-2 Forms.

Student Conduct

Student conduct must conform to the Standards of Student Conduct, which has been established by students and college staff and has been approved by the Board of Trustees. The Standards of Student Conduct are listed in the Academic Policies section of this catalog and are strictly upheld.

Knowing Your Responsibilities

Long Beach City College provides you with a wide variety of academic assistance and personal support, but it is up to you to know when you need help and to seek it out.

It is your responsibility to keep informed and to obey the rules, regulations and policies which control your academic standing and your life as a Long Beach City College student.

Meeting deadlines, completing prerequisites and satisfying the degree and certificate requirements, as found in the curriculum guides and in this catalog, are all part of your duties as a student.

Consult this catalog, the college and school announcements and the schedule of classes for the information you need. Watch for official announcements in the Viking and on-campus bulletin boards.

Family Educational Right to Privacy Act (FERPA)

All student records of Long Beach City College are maintained in accordance with the provisions of the Family Rights and Privacy Act of 1974. Copies of the complete text of this act are available in the college library (see “Family Educational and Privacy Rights” in Shepherd’s Acts and Cases by Popular Names). The two basic elements of the act are the student’s right to review and challenge his/her record and the conditions under which information in the record can be released to outside parties.

1. Students may request access to challenge the correctness or appropriateness of any part of the record. However, students are advised that grades, though a part of the record, are considered final as assigned by the instructor and can only be challenged on the basis of clerical error, fraud, bad faith or incompetency.
2. Student information, except for directory information as defined below, cannot be released by the college to any outside agency, except for those entitled to access under the act, without signed permission of the student. The student may further restrict the release of name and attendance verification by completing the appropriate form in the Admissions Office. In the absence of having this form on file, the college may release directory information to any person or agency. Directory information is defined as dates of attendance, degrees, certificates or awards received, verification of student participation in school activities and sports and weight and height of members of athletic teams.

3. Parents may have access to records of their children but only if the children are still their dependents as evidenced by a claim of same on federal income tax returns. Parents desiring access to the records of a dependent child must present the full name, social security number and birth date of the child, their own personal identification and a copy, that the college district may keep, of the current year’s federal income tax return indicating the child has been claimed as a dependent. Parents seeking to review records of a dependent child during the early months of the year must be able to demonstrate that they have already filed for the year even though the filing deadline isn’t until April 15th.

4. By law, notwithstanding any of the above, all student records must be released under court order. The student will be notified by mail to the last address on file of any such access, and the student shall have the right to request a copy of any information released in this manner.

5. Any questions regarding the student’s rights under this act should be directed to the Dean, Admissions and Records.

**Drug-Free College Statement**

In compliance with federal legislation, it is the policy of the Long Beach Community College District to maintain a drug-free environment and support a drug prevention program for students use. The unlawful manufacture, distribution, dispensation, possession, use or sale of illicit drugs or alcohol is prohibited by all students in all buildings, property, facilities, service areas and satellite centers of the district or as part of any district activities. Any student violating this policy will be subject to appropriate disciplinary action.

**Student Right-To-Know and Campus Security Act**

The Long Beach Community College District is committed to making the campuses of Long Beach City College as safe as possible for students, employees and visitors. A College Police Department exists to inform, educate and make individuals aware of personal safety, as well as the safety of others. Students are encouraged to promptly and accurately report all criminal and emergency actions to the College Police Department on either campus. Those actions requiring further reporting should also be reported to the appropriate law enforcement agency. Assistance will be provided, as needed, to accomplish this task.

Policies exist identifying Long Beach City College as a secure facility. Access to all facilities outside of class hours require prior approval from the Office of Administrative Services.

Under the auspices of the College Police Department, monthly crime reports are compiled and distributed for both student and employee consumption. These reports are intended to inform individuals about current criminal experience, as well as educate individuals regarding crime prevention. The Police Department also recommends and conducts programs designed to inform students and employees about campus security procedures and practices which encourage individuals to be responsible for their own security, as well as the security of others. In addition, pamphlets are prepared and distributed by the College Police Department on a regular basis to new students and employees regarding campus safety and crime prevention.

College Police Officers have the authority and responsibility to enforce all policies, rules and regulations of the District, as well as local, state and federal laws.

In compliance with the Student-Right-to-Know and Campus Security Act of 1990, it is the practice of the Long Beach Community College District to make available its completion and transfer rates to all current and prospective students.

In accordance with this legislation, beginning in Fall, 1998, all certificate, degree and transfer-seeking first-time, full-time students were tracked over a three-year period; their completion and transfer rates are listed below. These rates do not represent the success rates of the entire student population at Long Beach City College, nor do they account for student outcomes occur-
ring after this three-year tracking period. The Fall 1998
group represents only 2% of the students enrolled at the
college that term.

Based upon the group defined above, 29.1%
atained a certificate, degree or became "transfer-
prepared" during the three-year period (Fall 1998 to
Spring 2001). Students who are "transfer prepared" have
completed 56 transferable units with a GPA of 2.0 or
better.

Based upon the group defined above, 15.4% trans-
ferred to another California postsecondary institution
(CSU, UC or another California Community College)
prir to attaining a degree, certificate or becoming
"transfer prepared" during a five semester period
(Spring 1999 to Spring 2001).

Of the original cohort group, 46% were still
enrolled at Long Beach City College the academic year
following the three-year tracking period. Based on
another study, the average time to degree for Long
Beach City College students is 4 1/2 years (9
semesters).

More information about Student-Right-to-Know
rates and how they should be interpreted can be found at
the California Community Colleges "Student-Right-to-
Know Information Clearinghouse Website" located at
Counseling & Student Development

The Counseling Center assists students in the selection of career and educational goals consistent with their interests and aptitudes. The counseling program is designed to complement the instructional program by providing specialized services, including testing and counseling on personal problems which may affect a student’s progress in college. Counselors are available to help each student utilize to the best possible advantage the educational opportunities offered by Long Beach City College. Counseling services are available Monday-Tuesday, 8 a.m.-8 p.m., Wednesday-Thursday, 8 a.m.-5 p.m. and Friday, 8 a.m.-4:30 p.m. Call LAC (562)938-4560, 938-4561 or PCC (562)938-3920.

Campus Child Development Center

Child care services make attending classes more convenient for many students. Quality care is available for children between 2-5 years of age (before kindergarten entrance). Both campuses have child care facilities. The facility you use is NOT dependent on the location of your classes. Both Centers have scheduled four-hour sessions and extended times to accommodate students. The Centers are open Monday-Friday, 6:30 a.m.-6 p.m. CalWORKs students may take advantage of this service while working toward their combined school and work requirement. For information about fees, space availability and parent responsibilities, contact the PCC Center at (562)938-3079 or 938-3080 and/or the LAC Center at (562)938-4253 or 938-4728.

Transfer Center

The College Transfer Center, located in Room A151 in the Administration building at LAC, offers services to students in the process of transferring. Some of these services include individualized counseling/advising, a written academic plan, transcript evaluation, academic assessment and information about financial aid, housing, parking and getting around a larger campus. Students may make an appointment with a Transfer Center counselor and/or with representatives from a variety of four-year colleges and universities. The Transfer Center is open Monday through Thursday from 8 a.m. – 7 p.m. and Friday from 8 a.m. – 4:30 p.m. Appointments may be made in the Transfer Center at the Liberal Arts Campus by calling (562)938-4030.

Student Affairs

The Student Affairs program is an integral part of the educational experience at Long Beach City College. Students have the opportunity to participate in campus governance, as well as the extensive activity program of the college.

Students are authorized by the governing board to form an organization of their own, and Long Beach City College provides an effective means for full student participation in college-wide governance. The activity program includes clubs, dramas, forensics, student publications, athletics, musical programs, rallies, speakers, films, elections, cultural programs and scheduled social events.

All students are encouraged to become involved at LAC and PCC in some phase of this comprehensive student affairs program. For more information, contact your student leaders at (562)938-4551 (LAC) or (562)938-3984 (PCC).

Career Planning Center

The average person spends 14 years getting an education, 20 years parenting–but 45 years in a career. People spend more time working at their career than virtually anything else. Career decisions have an enormous impact on people’s lives.

The Career Planning Centers are here to assist individuals in their career decisions. This dynamic process is life-long and can entail individual counseling or group counseling in a classroom setting.

The programs to help this personal exploration include: assessments, discussion and exploration, use of an expansive career library, computer assisted career guidance systems and “hot files” on job exploration and future career trends.

The opportunity to explore choices is what the centers are all about. The centers are staffed with counselors, a resource technician and student assistants. Centers are located on the Liberal Arts Campus and the Pacific Coast Campus. For more information and hours, call: LAC (562)938-4283 or PCC (562)938-3915.

Job Placement Services

The Job Placement Service posts new jobs daily on a bulletin board at each campus. Students seeking more information about a job listing may visit the Job Placement Services Office for an interview and an appoint-ment with prospective employers. Office hours at LAC and PCC are: 8 a.m.-5 p.m., Monday-Friday.

Job Placement Offices

LAC–Southeast corner, Library PCC–Admin. Bldg. (562)938-4500 (562)938-3900

Office of Economic Development

Economic Development develops and implements economic development and workforce development (WFD) programs and services directly and indirectly related to instructional programs at the College, regional and community workforce preparation needs, and mandated vocational education and workforce preparation initiatives from the federal government, state legislature and the California Community College Chancellor’s Office. Economic development refers to the activities

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that support the attraction, expansion and retention of jobs. Workforce preparation refers to programs and services which prepare people for entry-level work and career advancement including technical preparation, basic skills and employability skill sets.

All programs and services are designed to improve local and regional workforce preparation and regional economic development. This includes professional development courses for the community at large, customized training for business and industry, technical assistance and employee assessment and skills development programs. These programs and services are performance based and can be customized to meet specific business/industry needs. All activities of the Office of Economic Development are linked to the strategic goals and initiatives of the College. For more information please call (562)938-5005.

**Continuing Education Center for Women**

The center provides services and activities designed to help individuals pursue career and educational goals through the development of skill, capability and confidence. These services include: referrals to college and community resources, weekly educational workshops and seminars, parenting education workshops, support groups, crisis counseling, a student lounge and study area with a student dedicated computer and staff to provide individual assistance.

The Women’s Center is located on the Pacific Coast Campus in room DD142. For additional information, please call (562)938-3987. Hours: Monday-Thursday 8 a.m. – 3:30 p.m.; Friday 8 a.m. – 1 p.m.

**Student Health Services**

A Student Health Center on each campus provides health education and promotion, health assessment, selected health screenings and limited illness care. Scheduled health education and promotion events include the health fair, smoking cessation activities and breast cancer awareness programs. In cooperation with Student Health Services, the Long Beach Public Health Department provides counseling and testing for human immunodeficiency virus (HIV) and other sexually transmitted diseases (STDs).

In the event of accidental injury while on campus or while engaged in college sponsored activities, students must contact the Student Health Centers to initiate the coverage for student accident insurance. The college student accident insurance, after a $50.00 deductible, will pay for most of the necessary medical care provided by approved physicians in approved health care facilities.
Voluntary Health Insurance

Both medical and dental insurance plans are available for students and their dependents. These are supplemental plans which have costs attached to them. Brochures and application forms are available in the office of the Dean of Student Affairs and in the Student Health Centers.

Psychological Counseling Services

Student Health Services and the Counseling Departments on both campuses have cooperated to provide brief psychological counseling for students with personal problems. Appointments are made and the counseling sessions are held in the offices of the Counseling Departments at LAC and PCC. The personal counseling is provided by professional counselors of Family Service of Long Beach and is both strictly confidential and entirely separate from college records.

Student Parking Regulations

Parking permits are required for all Long Beach City College lots; that is, a current semester student parking permit or a daily permit. Student permits and daily permits do not authorize parking in staff or other reserved areas except where posted otherwise. Parking is available on a first-come, first-served basis. Having a permit does not guarantee that a student will find a parking space near his or her class. At the LAC, there is additional parking in the Veterans Stadium Parking Lot. Parking permits are purchased each semester during registration at the time the College Services Card is purchased or may be obtained later at the Associated Student Body Bank.

Emergency Services

Contact the College Police Department with any questions or problems regarding security, first aid, fire, lost and found items, thefts or other crimes. The Police Department office is located north of the Library in Parking Lot C, phone (562)938-4910. The PCC office is located in Room EE165, phone (562)938-4910.

Evening Escorts

Student Aid escorts are available to students at both LAC and PCC. Students should call College Police to arrange for an escort to meet them on campus. Phone (562)938-4910 for LAC and PCC.

Parking and Traffic Regulations

These rules are enforced to ensure the rights of permit holders, as well as to provide for the safety of people and property:

1. Parking permits are required at all times in both LAC and PCC parking lots, except for Friday evening and Saturday classes. To obtain a new or an additional parking permit during the semester, contact the ASB Bank on the Liberal Arts Campus or the Pacific Coast Campus. For students who do not desire to purchase a semester parking permit and wish to park in college parking lots, a one-day parking permit machine is available at both campuses. The permit machine for the Liberal Arts Campus is located on the west side of parking lot “J” and at the Pacific Coast Campus in parking lot “2.”

2. The student parking permit should be attached to the rear view mirror so that it is visible from the front of the vehicle. The one-day parking permit is to be placed in plain view on the vehicle dashboard with the permit information facing upward. Students who have difficulty displaying their permits should go to the College Police Department for assistance. Students, who drive a convertible-type vehicle, can obtain a special convertible permit, after obtaining a semester parking permit. The convertible permit can be obtained through the College Police Office at the Liberal Arts Campus only.

3. Citations are issued starting the third week of each semester for vehicles not displaying a valid parking permit.

4. Citations will be issued by the Long Beach Community College District Police Department to automobiles which do not display a properly placed current permit when parked in marked student lots. Students parked in staff or other specially designated areas will also be cited.

5. Students may not double park nor circle the parking lots to await a parking space.

6. Long Beach City College has no jurisdiction over off-campus street parking. No adjustments will be made for parking citations for violation of parking regulations at the level of the College Police Department. Persons contesting citations must do so through the Long Beach Community College Parking Citation Office at (888)255-9711.

7. No adjustments will be made for parking citations issued for violation of parking regulations at the level of the College Police Department. Persons contesting citations must do so through the Long Beach Community College Parking Citation Office at (888)255-9711.

8. Motorcycles may be parked only in areas specifically posted for their use. Operators of motorcycles must also purchase a parking permit and keep it in their possession. Motorcycles and mopeds may not be driven or parked on sidewalks of the college. Violators will be cited.

9. Students and staff with state-issued disabled placards may park in the marked handicapped spaces and in other student and staff spaces. Disabled permits are not valid in carpool spaces nor in reserved spaces.

10. Questions about these and other applicable parking and traffic regulations should be directed to the College Police Department at LAC, in Parking Lot C, phone (562)938-4910.

Student Financial Aid

Long Beach City College administers a comprehensive student financial aid program to assist students
in meeting college costs. The amount of financial aid awarded varies from student to student, depending on the individual’s need and resources.

Financial aid awards are based on calculated financial need as determined by the Free Application for Federal Student Aid. The FAFSA may be completed via the paper application which is available at the LAC Financial Aid office or the PCC office, or may be completed on the Web at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). Student budgets include educational expenses, such as tuition, fees, books, supplies, housing, food, transportation, child care and personal expenses.

Financial aid recipients must adhere to the standards of progress of the financial aid programs.

**Federal Programs**

To be eligible for the five federal programs, the student must be a U.S. citizen or an eligible non-citizen as defined by federal regulations.

Federal regulations also require financial aid recipients to either have graduated from high school or have completed a recognized equivalent (such as the California High School Equivalence examination or the GED). Those who do not meet the above requirements must pass a federally approved Ability to Benefit test through the Long Beach City College Assessment Center.

**Federal Pell Grants** provide federal grants that range from $400 to $3500. In order to be eligible for a Pell grant, the student must have financial need as determined by a formula which is applied uniformly to all applicants throughout the nation.

**Federal Supplemental Educational Opportunity Grants (FSEOG)** are federal grants which may range from $100 to $1000 per year at Long Beach City College.

The **Federal Work Study Program (FWS)** provides part-time employment. Students are employed a maximum of fifteen hours per week while school is in session. The pay rate for most Federal Work Study positions is currently $6.25 per hour for the first year ($40 hours) and $6.75 per hour during subsequent years.

The **Federal Perkins Loan Program (formerly the National Direct Student Loan Program)** provides low-interest, long-term loans. No interest is charged, nor is repayment required while the borrower is enrolled in school at least half-time. Payments and interest of five percent per year begins nine months after the borrower ceases to be enrolled or is enrolled less than half-time.

The **William D. Ford Direct Loan Program** provides loans to students to be used for educational expenses. Community college students may borrow up to $2625 for the first year of study and up to $3500 per year after successful completion of the first year.

The amounts awarded to the student from the FSEOG, FWS, Perkins Loans and the William D. Ford Direct Loan programs will vary depending upon the financial need of the student. Financial need for these programs is determined by the use of the Free Application for Federal Student Aid (FAFSA) which is available at the Financial Aid Offices at LAC and PCC. FSEOG, FWS and Perkins Loans funds are limited and early application is strongly advised. Be sure to check the financial aid calendar published in the current schedule of classes for financial aid deadlines.

**State Programs**

Cal Grant A helps low- and middle-income students with tuition/fee costs at four-year colleges and universities. Grant recipients are selected on the basis of financial need and grade point average.

If you qualify for a Cal Grant A and want to attend a public community college first, the Student Aid Commission will hold the tuition/fee award on reserve until you transfer to a four-year school, provided you continue to qualify.

Cal Grant B provides a living allowance and tuition/fee help for low-income students. Cal Grant B’s may be used at community colleges, as well as at four-year schools.

Cal Grant C helps vocational school students with tuition and training costs. Recipients must be enrolled in a vocational program at a community college, independent college or vocational school, in a program of study from four months to two years in length.

The application period for all Cal Grants is from January 1 until March 2 for the following academic year. Application materials and help with filling them out are available in the Financial Aid Offices at LAC and PCC during the application period.

**Applications, Program Guidelines and Deadlines**

Students who plan to apply for financial assistance to meet their educational costs at Long Beach City College are encouraged to obtain the following information from the Financial Aid Office.

**USDE Student Guide**

**Financial Aid Workbook, 2002-2003**

**Long Beach City College Financial Aid**

**Satisfactory Progress Policy**

Students are invited to visit the Financial Aid Office to talk to any of the staff members for further clarification and financial counseling.

**Extended Opportunity Program and Services (EOP&S)**

The Extended Opportunity Program provides services and activities that are “over and above” what is traditionally provided to community college students. EOP&S is designed to help low-income and education-
ally disadvantaged students have a successful college experience and complete their career goals.

The following services are provided by the program at Long Beach City College: priority registration, academic and personal counseling, peer advisement, study skills workshops, developmental courses, individual tutoring and financial assistance.

Students who would like to apply for the program must first complete an application for financial aid at the Financial Aid Office.

**EOP&S Eligibility:** Students must be enrolled full-time, be eligible for the California Board of Governors' Grant (BOGG) and meet the educationally disadvantaged criteria.

**Cooperative Agencies Resources for Education (CARE):** The CARE program provides support services to assist students in EOP&S who are single parents with children under the age of fourteen and recipients of CalWorks or GAIN. The objective of the program is to help eligible students complete college-level training and educational programs.

**G. I. Bill**

Generally, veterans’ eligibility for benefits expires 10 years after release from active duty. (Extensions are sometimes granted in cases of disability.)

At the beginning of each semester, all veterans and dependents must pick up an Attendance Verification Card and return it to the Veterans’ Affairs Office at PCC with all of their instructors’ signatures within the first two weeks of class. Other information is available at the Veterans’ Affairs Office (in the administration wing at the Pacific Coast Campus).

G. I. Bill benefits will be paid according to the following schedule:

**Regular Semester**

- Full payment............................... at least 12 units
- 3/4 payment.................................. at least 9 units
- 1/2 payment................................. at least 6 units
- 1/4 payment................................. at least 3 units

*1/4 payment is not available in all programs and may not be advisable under certain conditions. Check with the Veterans Affairs office for more information, (562)938-3929.

**College Programs**

Long Beach City College administers more than 1000 scholarships each year. These scholarships are funded by campus and community organizations, local businesses and private donors. Applications for scholarships will be available October 1, 2002 and due December 20, 2002.

The Scholarship Office/Foundation Office is located in Building “I,” Martha Knoebel Center, near Parking Lot C at the Liberal Arts Campus.

The Scholarship Office is located in AA128 at the Pacific Coast Campus.

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**Support Services for Disabled Student Programs and Services (DSPS)**

The Department of DSPS provides assistance to disabled students requiring special services at the college. They include:

1. Specially designated parking spaces.
2. Ramps and elevators for accessibility to main campus facilities.
3. Registration assistance for students unable to negotiate regular registration procedures.
4. Specialized academic, personal and vocational counseling.
5. Special equipment for campus use and home loan, such as tape recorders, visual enlarging machines, a talking calculator and adaptive computer equipment.
6. Services of the State Department of Rehabilitation, such as vocational counseling and guidance, training (with payment of costs, such as books, fees, tuition, etc.) and job placement.
7. Specialized instruction for the physically limited, as well as for individuals working with the disabled.
8. An innovative Special Learning Center for disabled students to provide self-pacing programs and vocational exploration packages, located at the Pacific Coast Campus.
9. Specialized services for the deaf and hard of hearing, including speechreading (lipreading) instruction, courses in total communication, as well as the coordination of classroom interpreters for deaf students. Students who may need these services should inform the DSPS office before they enroll.
10. Adapted physical education for physically limited students requiring specialized physical education.
11. The Speech, Language and Hearing Clinic provides diagnosis and therapeutic remediation of specific communication problems through individual and group assistance.

In addition to these services, the program has as its goal the integration of the student with a disability into the mainstream of college activities. For information or appointments, please call: LAC (562)938-4558; PCC (562)938-3921; (562)938-4833 TDD.

**Civil Rights Compliance Statement**

The Long Beach Community College District does not discriminate in its admissions, educational programs, activities or employment policies on the basis of race, age (over 40), sex, religious creed, ancestry, color, national origin, disability, medical condition, marital status, sexual orientation or status as a Vietnam era veteran. The District is subject to Title VI and VII of the Civil Rights Act of 1964, Title IX of the Educational

The lack of English language skills will not be a barrier to admission and participation in the District’s programs.

Anyone with a question or a discrimination complaint should contact Irma Ramos, Director of Human Resources and Staff Diversity, 4901 E. Carson St., Long Beach, CA 90808, (562)938-4095.

**Title IX. Prohibiting Sex Discrimination in Education**

The Long Beach Community College District is committed to support all regulations under Title IX. “No person in the U.S. shall, on the basis of sex, be excluded from participation in, be denied the benefits of or be subjected to discrimination under any operation of an educational institution that receives federal funds.”

Anyone with a question or a discrimination complaint should contact Irma Ramos, Director of Human Resources and Staff Diversity, 4901 E. Carson St., Long Beach, CA 90808, (562)938-4095.

**Americans with Disabilities Act of 1990**

The Americans with Disabilities Act (ADA) of 1990 prohibits discrimination against people with disabilities in employment, public services including public and private transportation, public accommodations and telecommunications services.

Support services for students with a disability are provided through the Disabled Student Services Program. Anyone needing information about our services for students with a disability should contact this office at (562)938-4558 voice or (562)938-4833 TDD.

Anyone with a question or a discrimination complaint should contact Irma Ramos, Director of Human Resources and Staff Diversity, 4901 E. Carson St., Long Beach, CA 90808 at (562)938-4095.

**Sexual Harassment Policy Statement**

Harassment on the basis of sex is a violation of an individual’s civil rights. It is the policy of the Long Beach Community College District to provide an educational, employment and business environment free of unwelcome sexual advances, requests for sexual favors and other verbal or physical conduct or communications constituting sexual harassment, as defined and otherwise prohibited by state and federal statutes.

Anyone with a question or a sexual harassment complaint should contact Irma Ramos, Director of Human Resources and Staff Diversity, 4901 E. Carson St., Long Beach, CA 90808, (562)938-4095.
Section 504, Rehabilitation Act

In compliance with Section 504 of the Rehabilitation Act, the District has developed a Disabled Student Services Program headed by Mark Matsui. He is located at 4901 E. Carson St., Long Beach, CA 90808. Anyone needing information about our program for students with a disability should contact this office at (562)938-4558 voice or (562)938-4833 TDD.

The Long Beach Community College District encourages the full participation of students with a disability in regular classes. The college offers support services to provide students with an equal educational experience. Disabled Student Services provides sign language interpreters, note-takers, readers, disability related counseling, test-taking accommodations, speech services, adapted equipment and a variety of other services.

Anyone with a question or a discrimination complaint should contact Irma Ramos, Director of Human Resources and Staff Diversity, 4901 E. Carson St., Long Beach, CA 90808, (562)938-4095.

Declaracion Del Cumplimiento De Los Derechos Civiles

El distrito del colegio de la comunidad de Long Beach no discrimina en sus normas de admisión, programas educacionales, actividades o regulaciones de empleo en lo referente a raza, edad (mas de 40 años), sexo, religión, descendencia, color, nacionalidad, incapacidad, condición médica, estado civil, orientación sexual o el ser veterano en la guerra de Vietnam. El distrito está sujeto a los artículos VI y VII del Acta de 1964 de los derechos civiles, el artículo IX de la enmienda educacional de 1972, el Acta de Rehabilitación de 1973 secciones 503, 504 y el Acta de Americanos incapacitados de 1990.

La falta de habilidad en la lengua inglesa no será una barrera para la admisión y participación en los programas del distrito.

Para preguntas o quejas de discriminación comunícase con Irma Ramos, Director of Human Resources and Staff Diversity, 4901 E. Carson St., Long Beach, CA 90808, (562)938-4095.

Artículo IX Prohibe La Discriminación Sexual En La Educación

El distrito del colegio de la comunidad de Long Beach está comprometido a apoyar todas las regulaciones bajo el artículo IX que especifica que: Ninguna persona en los Estados Unidos, por condición de su sexo, tendrá que ser excluida de participar o serle negada los beneficios o ser sujeta a discriminación bajo ninguna operación que se lleve a cabo en una institución educacional que reciba fondos federales.”

Para preguntas o quejas de discriminación comunícase con Irma Ramos, Director of Human Resources and Staff Diversity, 4901 E. Carson St., Long Beach, CA 90808, (562)938-4095.

Americanos Con Incapacidad–Acta De 1990

El Acta (ADA) de 1990 de Americanos con incapacidades prohibe la discriminación contra personas con incapacidad en el trabajo, servicios públicos incluyendo transportes público y privados, alojamientos públicos y servicios de telecomunicación.

Se proveen servicios de ayuda para estudiantes con incapacidades mediante el Programa de Servicios Para Estudiantes Incapacitados. Para informarse de estos servicios, llame al (562) 938-4558 (Voz) o (562) 938-4833 TDD.

Para preguntas o quejas de discriminación comunícase con Irma Ramos, Director of Human Resources and Staff Diversity, 4901 E. Carson St., Long Beach, CA 90808, (562)938-4095.

Declaracion De Las Normas De Acosos Sexuales

Acosos relacionados con el sexo es una violación de los derechos civiles de un individuo. La norma del distrito del colegio de Long Beach es la de proveer un ambiente educativo, de trabajo y profesional, libre de insinuaciones sexuales no deseadas, de petición de favores sexuales, conductas verbales y físicas o comunicaciones que constituyan acosos sexuales, como está definido y de otra forma prohibida por los estatutos federales y estatales.

Para preguntas o quejas de discriminación comunícase con Irma Ramos, Director of Human Resources and Staff Diversity, 4901 E. Carson St., Long Beach, CA 90808, (562)938-4095.

Sección 504, Acta de Rehabilitacion

De acuerdo con la Sección 504 del Acta de Rehabilitación, el distrito ha desarrollado un programa de servicios para los estudiantes incapacitados, dirigido por Mark Matsui. El está localizado en 4901 E. Carson St., Long Beach CA 90808. Cualquier persona que necesite información acerca de nuestro programa para estudiantes con incapacidades puede ponerse en contacto con esta oficina al (562) 938-4558 voz o (562)938-4833 TDD.
El distrito del colegio de la comunidad de Long Beach invita a los estudiantes con incapacidades a participar de lleno en clases regulares. El colegio ofrece servicios de apoyo para proporcionar a los estudiantes una experiencia educacional equitativa. Los servicios para los estudiantes incapacitados proporciona intérpretes de lenguaje por señas, tomadores de notas, lectores, consejos relacionados con incapacidad, adaptaciones para tomar exámenes de acuerdo a las necesidades de cada individuo, servicios de lenguaje, equipo adaptado, y una extensa variedad de otros servicios.

Para preguntas o quejas de discriminación comunicarse con Irma Ramos, Director of Human Resources and Staff Diversity, 4901 E. Carson St., Long Beach, CA 90808, (562) 938-4095.
Learning Resources & Services

Libraries
Libraries at each of the two main campuses have a combined collection of more than 150,000 volumes and are fully automated with an online union catalog and computer-based literature searching available at each site. In addition to books, the collections include periodicals, pamphlets and various types of non-print materials, such as compact discs and audio cassettes. Librarians are available for assistance all hours the libraries are open and instruction in the use of library resources is offered at both campuses.

Liberal Arts Campus
Hours (fall and spring)
Monday-Thursday 7 a.m.-10 p.m.
Friday 7 a.m.-4 p.m.
Saturday and Sunday 10 a.m.-4 p.m.
For additional information or summer hours, call (562)938-4853.

Pacific Coast Campus
Hours (fall and spring):
Monday-Thursday 8:30 a.m.-9 p.m.
Friday 8:30 a.m.-2:30 p.m.
Saturday 10 a.m.-2 p.m.
Sunday CLOSED
For additional information or summer hours, call (562)938-3028.

PCC Learning Center

Pacific Coast Campus
The PCC Learning Center provides personal learning assistance in reading, arithmetic, spelling, vocabulary and English at all levels. Using computers and a variety of teaching methods and materials, students can progress at their own speed.

- The center is designed to aid students who:
  - plan to enroll or are enrolled in regular classes and need to improve or refresh their basic educational skills.
  - plan to take the college assessment tests or examinations for employment, special educational programs or equivalency diplomas (GED).
  - Wish to review their basic education skills.

The center is open year round, and students may begin or complete their program at any time. Scheduling is arranged to meet the personal timetable of students. At the time of their first attendance, students will plan with the instructor their specific goals and hours.

The PCC Learning Center at the Pacific Coast Campus, Room GG129, is open: Monday -Thursday, 8 a.m.-9 p.m. and Friday, 8 a.m.-2 p.m. For information, call (562)938-3978.

Center for Learning Assistance Services

Liberal Arts Campus  Pacific Coast Campus
North Wing of the L Building  GG Building
(562)938-4474  (562)938-3991

The Center for Learning Assistance Services (CLAS) offers a variety of programs to help students achieve their academic and occupational goals. For more information about CLAS services, check the CLAS web page at http://clas.lbcc.cc.ca.us.

Learning and Study Skills
Skills to enhance learning, such as test taking and note taking, are taught in a variety of ways. Study skills assistance is offered through a series of free workshops. Learning skills are taught through individualized instruction or through a comprehensive learning skills course such as LEARN11.

Media Materials
At the Liberal Arts Campus, CLAS houses the videotape collection for televised instruction courses which may be viewed in the Center. Music tapes and CDs are available for students who have listening exercises required by their music class. CLAS also maintains a large teacher reserve section for instructors who would like to have media materials available for their students.

Tutoring
Tutoring is offered in a variety of college subjects, including accounting, biology, chemistry, physics, foreign languages and math. Students work individually and in small groups. Interested students should inquire in person in Room L119 at LAC or GG116 at PCC. Limited on-line tutoring is available. Visit our web page at http://clas.lbcc.cc.ca.us/onlinetutoring for more information.

Open Access Computer Lab
Both Macintosh and Gateway PC computers, software, laser printers and Internet access are available to students in a large open-access computer lab on the second floor of the L Building at LAC. Interested students may obtain information about the lab policies and services by visiting the facility.

A Campus Computing Center with a mix of Power Macintosh and Gateway PC computers with laser printers and Internet access is available in GG113 on the Pacific Coast Campus. For information on the lab hours and policies, students may visit the lab.

Instructional Technology Student Support Center
A technology support center for students using multimedia technology as a component of their courses is available in rooms L135/133 at the Liberal Arts Campus. Students can receive assistance with their computer projects. Both Macintosh and Gateway PC computers with a wide variety of software are available. Web-based supplemental instruction is also available in the Center.
Supplemental Instruction

Supplemental Instruction (SI) services in selected courses offers organized discussion sessions designed to help students master course concepts and improve relevant learning skills. Regularly scheduled discussion sessions are conducted by trained SI Leaders in selected course sections. Students should check the schedule of classes to determine which courses offer supplemental instruction.

Computer & Office Technologies Self-Paced Classrooms

Pacific Coast Campus

Register at any time during the semester. Please see Schedule of Classes for specific deadlines for each course.

AA202

Courses are offered in this self-paced classroom in Beginning Keyboarding/Typewriting using Microsoft Word, Microsoft Excel (Beginning, Intermediate and Advanced), Telecommunications and the Internet, Business Machines, Filing A and B, Business English, Business Telephone Procedures, Employment Testing and Interviewing, Professional Development for the Office and Desktop Publishing—Small Business I & II using Microsoft Publisher.

Hours of Operation Phone No. (562)938-3033
Monday-Friday, 8:00 a.m.-4:00 p.m.
Monday-Thursday, 5:00-8:00 p.m.
Saturday 8:00 a.m.-noon

AA205

The self-paced courses offered in this classroom include Intermediate and Advanced Keyboarding/Typewriting, Speed and Accuracy Building for Typists, Microsoft Access for Office Applications A and B, Access MOUS Core-User Exam Preparation, Computer Transcription, Data Entry (Levels I-III), Microsoft Outlook, Electronic Records Management and Computerized Office Job Training, which includes a variety of simulated entry-level office jobs and computer applications.

Hours of Operation Phone No. (562)938-3035
Monday-Thursday, 8:00 a.m.-1:00 p.m.
Tuesday and Thursday, 5:30-9:00 p.m.

AA206

Word processing courses (Microsoft Word and Word Perfect) provide instruction at beginning, intermediate, advanced and expert levels. The word processing curriculum provides students with the broad background necessary for success in a variety of office environments. Students also have courses in Word MOUS Proficient-User Exam Preparation, Word MOUS Expert-User Exam Preparation, Microsoft Windows Operating System (Beginning and Advanced), PowerPoint and Proofreading.

Hours of Operation Phone No. (562)938-3032
Monday-Friday (closed Wednesday) 9 a.m.-2:30 p.m.
Monday and Wednesday 5:30-9:30 p.m.
Tuesday 5:15-9:15 p.m.

Liberal Arts Campus

M107/M109


Hours of Operation
Monday, Wednesday, and Friday 8:00 a.m.-2:00 p.m.
Tuesday and Thursday 5:00-9:00 p.m.
Saturday 9:00 am-1:00 p.m.
Phone Numbers: (562)938-4064, 938-4061, 938-4461

Writing and Reading Center

(Formerly English Skills Center)

Liberal Arts Campus and Pacific Coast Campus

The Writing and Reading Center offers a wide range of materials and instruction to help students improve their language skills: writing, grammar, punctuation, usage, spelling, vocabulary and reading. Help is also available in techniques for writing research papers and the analysis of literature. Qualified certified instructors and peer tutors are on duty to help students on an individual basis.

The Writing and Reading Center at the Liberal Arts Campus is located in the north wing of the Library in L149. At the Pacific Coast Campus, the Writing and Reading Center is located in Room GG129. For additional information, call (562)938-4520.

Aviation Learning Center

Liberal Arts Campus

The Center provides videotapes and computer-based instruction to students enrolled in aeronautics courses. Subjects available include private pilot, instrument rating, commercial pilot, multi-engine rating, flight and ground instructor and airline transport pilot. Flight training devices (single and multi-engine airplane simulators) are also located in the center for the use of students enrolled in simulator flight training classes.

The Aviation Learning Center is located in Room Z111. For additional information, call the Center at (562)938-4387.

Life Science Learning Center

The Life Science Learning Center offers a wide range of audiovisual materials and books to assist students in learning the concepts taught in Biology, Anatomy, Physiology and Health Education courses. The Life Science Learning Center also provides a “hands-on” experience for the student through the use of
scientific models, microscopes and plant and animal specimen collections. In addition, Macintosh computers with CD-ROM drives and a printer are available. A collection of software and courseware are provided for student use in the Learning Center. Internet access is also available.

The Life Science Learning Center is located in D214. The Center is open during posted hours.

**Foreign Language Multimedia Learning Center**

**Liberal Arts Campus**

The Foreign Language Learning Center offers technological and linguistic support in a multimedia environment for students enrolled in foreign language classes. The Center also operates as an open access lab to support computer assisted learning.

The Center is open Monday-Thursday from 8 a.m.-8 p.m.; Fridays, 8 a.m.-2 p.m. and Saturdays, 9 a.m.-2 p.m. For additional information, please call (562)938-4331.

**Mathematics Learning Center**

**Liberal Arts Campus**

The Math Learning Center houses state-of-the-art computers to provide students with a broad range of educational tools. With PC workstations, students can access a variety of software that includes word processing, graphics, spreadsheets, statistics, Geometers' Sketchpad and Mathematica. Software is available that corresponds with many of the math textbooks to allow additional practice opportunities for students. Students can also use the computer labs for engineering courses, such as C++ and Engineering Graphics.

The Math Learning Center provides free peer tutoring to those students needing help in any math course offered at LBCC. In addition, students can arrange to meet others enrolled in the same course for informal group study or a study room can be reserved. Chemistry and physics tutors are also available. Math faculty are on hand for supplemental instruction.

The Math Learning Center is located in D103. Hours of operation are from 9 a.m.-8 p.m. Monday through Thursday; from 9 a.m.-4 p.m. Friday; and from 12 p.m.-4 p.m. Saturday. Students are invited to use the Math Learning Center facilities on a drop-in basis throughout the semester.

**Nursing and Allied Health Learning Center**

**Liberal Arts Campus**

The Nursing and Allied Health Learning Center provides supplementary material and skills practice for students enrolled in a nursing and/or allied health course. A variety of self-paced, print media, multimedia programs and skills equipment are available.

The center is located in Room C201 and is open during posted hours. For additional information, call (562)938-4299.
**Faculty Office Hours**

All full-time faculty hold five regularly scheduled office hours per week. Ask your instructors for their hours and office location.

**Class Syllabus**

All instructors are required to publish a course information sheet and distribute it no later than the end of the second week of classes. A copy must be kept on file in the office of the school to which the department belongs. The information sheet must contain a brief course description, including goals or purpose, grading standards for the class, a description of the means by which the course is to be taught, attendance requirements, and office location and hours for full-time faculty. Other recommended items are: exam dates, text, assignments and outline of topics.

**Student Attendance**

Attendance is the responsibility of the student. Students not attending the first class session may be dropped from the class at the discretion of the instructor. In the event of excessive absences, the instructor may drop a student from a course or may lower a student’s grade. Students who are absent in excess of 20 percent of the total class hours or for two consecutive weeks shall be dropped from class. The grade assigned by the instructor upon dropping a student for non-attendance shall be in accordance with Regulation 4020.3. Such students may be reinstated only at the discretion of the instructor for extenuating circumstances.

Extenuating circumstances shall be defined as reasons for absence beyond the control of the student. Typical examples of such circumstances would be extended illness, hospitalization, court appearances or death in the immediate family.

**Auditing of Classes**

An “auditor” shall mean a person who attends a course but is not regularly enrolled, and does not receive credit or a grade for the course. To be eligible to audit, a person must be currently enrolled in at least one other course.

Students may enroll as an auditor by permission of the instructor only. The level of auditor participation in a class shall be subject to the ongoing discretion of the instructor. Students may audit a specific course only once and shall be limited to auditing two courses per term. Audited units shall be included in determining student unit load maximums. However, audited units shall be excluded in determining student status for credit unit load for purposes such as financial aid, scholarships and athletic eligibility.

All official restrictions to enrollment shall apply to auditors, including placement and prerequisite requirements. Priority in class enrollment shall be given to students taking the course for credit. Auditors may enroll only after the conclusion of the open and “by petition” enrollment period and before the end of the fourth week of class for an 18-week course or equal percentage of the course length.

The fee for auditing a class shall be $15 per unit and any materials fees that are ordinarily required for the course. Students enrolled in classes to receive credit for ten or more units shall not be charged a fee to audit three or fewer units per semester. Fees are to be paid before auditing the course, and fees are non-refundable.

Auditors shall not be permitted to change their enrollment status in order to receive credit for the course. Regularly enrolled students may not change to audit status. Auditors shall not be permitted to earn credit by examination for an audited course.

**Grading Regulations**

**Grading System** - Final grades are issued after the end of the semester or summer session in which the class ends. Grades will be mailed to the last known address after the grades are posted. The significance of grades is as follows: A,” excellent; “B,” good; “C,” satisfactory; “D,” passing; less than satisfactory; “F,” failing; “W,” withdrawal; “MW,” military withdrawal; “CR,” credit (at least satisfactory-units awarded not counted in G.P.A.); “NC,” no credit (less than satisfactory-units not counted in G.P.A.). Courses numbered in the 600-band do not award a grade.

**Make-Up Grades for Incomplete Work**

Permission for making up incomplete work may be granted when unforeseeable emergencies and justifiable reasons cause the student to be unable to complete the academic work by the end of the course. It is the responsibility of the student to initiate the request for the incomplete, but the “I” grade is assigned at the instructor’s discretion.

The instructor gives the grade of “I” and indicates the grade to be assigned in the event the student does not complete the required work within one year from the end of the term in which the “I” was assigned. The grade must be “A,” “B,” “C,” “D” or “F” except that “CR” and “NC” grades may be assigned where the course provides for grading on this basis and the student has elected to be graded on the CR/NC basis by the appropriate deadline. This grade shall be based on the total requirements for the course and a grade of “W” may not be assigned.

The necessary make-up work and any other conditions required for the student to complete the course shall be filed in the Records Office by the instructor in writing. The Records Office shall make a reasonable attempt to provide the student with a copy. The student must complete the course within one year from the time the original grade is assigned. If upon completion of the course the grade is to be different than originally recorded, the instructor shall file the appropriate grade change with the Records Office. If the course is not completed within the one-year limitation, the originally recorded grade becomes final. Petitions to change these grades or to exceed the one-year make-up period must
Academic Policies

1. **Students withdrawing or being dropped** after the final week for “W”’s must be assigned a grade of “A,” “B,” “C,” “D,” “F,” “MW,” “CR,” or “NC.” The grade assigned shall be based on the total semester requirements for the course.

2. **Classes of nine weeks to full semester in length** - If the date of last attendance is within the first two weeks of the class, the grade recorded must be “NA.” If the date of last attendance is between the beginning of the third week and the end of the deadline week, then the recorded grade must be a “W.” After the deadline week a letter grade other than “W” must be assigned and must be based on the total course requirements.

3. **Classes of less than three weeks in length** - If the date of last attendance is the first class meeting, the grade recorded must be a “W” which will automatically be converted to an “NA” and will not be recorded on the transcript. If the date of last attendance is between the first and last class meeting, the grade recorded must be a “W.” A letter grade other than “W” must be recorded if the student attends the last class meeting.

4. **Classes meeting longer than a full semester (18 weeks)** - If the date of last attendance is within the first two weeks, the grade recorded is a “W” which will automatically be converted to an “NA” and will not be recorded on the transcript. If the date of last attendance is between the beginning of the third week and the end of the week which represents 75 percent of the term length rounded off to the nearest whole week, the recorded grade must be a “W.” After this time, a letter grade other than “W” must be assigned based on the total course requirements.

5. **For classes involving fractional weeks**, like the 5.5 week summer session, use the next lower whole number (five in this example) and apply the above rule.

6. **Students may petition for a “W” grade after the final limit for “Ws” only for extenuating circumstances beyond the control of the student**, such as verified accident or illness. Petitions must be reviewed and approved by the Grade Review Committee.

**Military Withdrawal** - The grade of “MW” may be assigned to students who are members of an active or reserve military service and who receive orders compelling a withdrawal from classes. Upon verification of such orders, the grade of “MW” may be assigned at any time from the beginning of the period that “Ws” may normally be assigned, through the end of the course. The “MW” grade shall in no way adversely affect a student’s academic record. The “MW” grade shall not be counted in completion ratio or GPA calculations. The grade of “MW” may be applied as appropriate retroactively to January of 1990.

**Change of Grades**

A systems of grade points is used to determine a student’s standing for graduation or transfer. Grade points are assigned to the respective scholarship grades as follows: for each unit of credit, the scholarship grade of “A” is assigned 4 points; “B,” 3 points; “C,” 2 points; “D,” 1 point; “F,” 0 points. CR (credit) and NC (no-credit) units are not counted in one’s GPA.

**Open Entry/Open Exit Courses**

Students completing 0-29 percent of the work or time required in an open entry/open exit course will be given an “NA” grade. Students completing 30-74 percent of the work or time required will be assigned a “W” grade. The “Ws” will be included in completion ratio calculations. Students completing 75 percent or more of the work or time required will be assigned the grade earned, i.e., “A,” “B,” “C,” “D,” “F,” “CR” or “NC.” The exception to this is the grade of “MW.”
Academic Policies

When Grades are Awarded

If the last day of a scheduled class falls within a term (fall, spring or summer), credit shall be awarded in the term in which the class ends. If the last day of a scheduled class falls between terms, credit shall be awarded in the subsequently scheduled term unless prior arrangements are made through the department offering the class.

Repetition of Courses

Credit courses that may be repeated fall into two categories, those that may be repeated only once under certain conditions and those that may be repeated up to three times (meaning a course may be taken a total of four times).

A. All courses except those indicated in section B may be repeated only once and only under one of the following conditions:

1. A course may be repeated provided that a grade of D, F or NC has been recorded. For all course repeats in which a grade of D, F or NC has been recorded, the grade of the repeated course, whether higher or lower, will be used in lieu of the repeated course for determining the grade point average. Unit credit is allowed only once. Neither credit nor grades shall be allowed for unauthorized repeats. The grade for the earlier course and the repeated course shall both be recorded on the student’s permanent record, insuring a true and complete academic history.

or

2. A course may be repeated when a grade of “B,” “C” or “CR” has been recorded provided that the district finds that the previous grade was the result of verified cases of accidents, illness or other circumstances beyond the student’s control. Students desiring to repeat a course under this section must have prior approval from the Grade Review Committee before enrolling in the course. Application for such approval must be made in writing to the Dean, Admissions and Records, and must be supported by documentation that will verify the extenuating circumstances and must include a statement from the instructor of record (or department head if the instructor is unavailable) indicating that the recorded grade was lower than it might otherwise have been, had the extenuating circumstances not arisen.

3. A course may be repeated when a grade of A, B, C or CR has been recorded provided that a minimum of two semesters has elapsed since the student previously took the course for all courses numbered 1-99, except for Directed Study, or one semester has elapsed for all courses numbered 100 or higher, except for 600 band courses and that the District has determined the student would benefit by repeating the course in order to ensure that the student’s knowledge is current. For course repeats in which a grade of A, B, C or CR has been recorded, the grade of the repeated course shall not be counted in calculating a student’s grade point average. The grade of the earlier course and the repeated course shall both be recorded on the student’s permanent record, insuring a true and complete academic history. Unit credit is allowed only once. Neither credit nor grades shall be allowed for unauthorized repeats.

B. Certain courses may be repeated up to a maximum of three times for a total of four enrollments regardless of the grades earned. These courses are identified in the college catalog and in the schedule of classes. They include courses in which skills or proficiencies are enhanced by supervised repetition and practice within class periods or those in which active participatory experience in individual or group assignments is the basic means by which learning objectives are met. All grades earned for the authorized repeats shall be counted toward the grade point average and these courses are not subject to the repeat rules of Section A. These courses are designated with a fixed course number followed by letters indicating the number of semesters the course may be taken for credit. The letters following the course number are not separated by a hyphen. (Example: “AB” = 2 semesters, “AC” = 3 semesters, “AD” = 4 semesters) For example, Journalism 85AD may be taken a maximum of four times. All grades and units earned in these types of courses are counted.

C. It shall be the student’s responsibility to ensure that the repetition of a course is authorized by these regulations. Any student who is determined to be repeating a course when not authorized to do so shall be administratively removed from the class and any fees or tuition paid may be forfeited. Any grades or credit submitted for unauthorized repeats shall be disallowed.

D. Credit by examination is not subject to the course repetition rules.

E. Courses in the 600-number band (non-credit courses) are not subject to the course repetition rules.

Academic Renewal

The purpose of academic renewal is to alleviate a portion of a student’s prior substandard academic work when such performance does not reflect current demonstrated ability. Students wishing to alleviate prior work must petition the Dean, Admissions and Records, in writing, for the alleviation of substandard grades under the following conditions:

A. The student must have completed 45 units of work at Long Beach City College with at least a 2.0 cumulative GPA subsequent to the work to be alleviated.
B. Work to be alleviated shall be on a semester (or term) basis with all work for the designated semester to be ignored in determination of the requirements for graduation, including GPA, field of concentration, honors, general education and units. Any work thus ignored, which would otherwise meet a particular requirement, will have to be fulfilled by retaking a course or by other legitimate means.

C. A maximum of two semesters (or terms) may be thus alleviated.

D. Academic renewal may be applied only at the time of application for graduation.

E. Work to be alleviated must have been recorded at least five years prior to the intended date of graduation.

F. All course work alleviated shall remain on the official record. The transcript shall be appropriately annotated to indicate that academic renewal has been applied, including the specific semester(s) (or terms) that were ignored.

**Academic and Progress Probation**

A. A student shall be placed on probation whenever the student’s academic record indicates any of the following conditions:

1. The student’s grade point average falls below 2.0 (C) in all units graded over the 4.0 grading scale after the student has attempted more than 12 units at Long Beach City College.

2. After enrolling in a minimum of 12 units at Long Beach City College, the student has completed fewer than one-half of all units in which the student has enrolled as reflected in the academic record.

B. For the purposes of section A.2, the entries of W, NC and I are counted as incomplete work while entries of A, B, C, D, F and CR are counted as complete.

C. Students on academic and/or progress probation shall be subject to Counseling Intervention. Counseling Intervention shall include the following provisions:

1. Meeting with a counselor in the Counseling Department, DSPS or EOP&S;

2. Completing a student “Strategy for Success” contract and/or an Education Plan;

3. Being limited to a maximum of 12 units each semester until the student is off probation; and

4. Completing the sequence of basic skills courses in the Education plan.

D. Any student on probation shall be reclassified as “satisfactory” whenever the cumulative grade point average reaches or exceeds 2.0 (C) and the ratio of units-completed to units-enrolled is one-half or better based on the number of units indicated in section A above.

**Academic and Progress Dismissal**

A student on probation for at least two semesters and who has not completed the Counseling Intervention and made up the deficiencies in the student’s academic record as outlined in the probation section shall be dismissed from Long Beach City College unless satisfactory progress is indicated during the semester in which the dismissal should normally occur. Satisfactory progress is defined as follows:

A. In the case of academic dismissal, the student must complete at least three units during the semester with a semester grade point average of at least 2.0.

B. In the case of progress dismissal, the student must enroll in at least three units during the semester. If enrolled in 3 to 5.5 units, the student must have a 1.00 completion ratio (complete all units). If enrolled in six or more units, the student must have a completion ratio of at least .80 (four-fifths).

Academic dismissal shall occur only at the end of the Spring semester.

**Readmission After Dismissal**

A. If a student is dismissed from the college and at the time of dismissal has not completed the Counseling Intervention, the student will not be readmitted to the college for at least one full year, consisting of Fall, Spring and Summer, in that order.

B. Only students who have completed Counseling Intervention may petition for readmission immediately after dismissal.

C. Students desiring to return after one year of dismissal must complete a readmission petition, which is reviewed by the Readmission Committee.

D. A dismissed student who is readmitted shall be readmitted as a student on probation and shall be subject to further readmission restrictions and dismissal in accordance with this policy.

**Scholarship**

Long Beach City College acknowledges outstanding student scholarship in three ways: on the Dean’s Honors List, in the graduation ceremonies and through a scholarship honor society. “Outstanding Scholarship” is classified in the following ways:

1) Scholarship with Honors 3.500-3.749 GPA

2) Scholarship with Distinction 3.750-3.999 GPA

3) Scholarship with Great Distinction 4.000 GPA

**Dean’s List**

Students on the Dean’s List are recognized at the close of each semester on a posted list and with a personal letter. To be eligible for the Dean’s List, a student must meet the following requirements:
Either: All students with 12 or more units attempted that semester with 75 percent or better overall completion ratio who maintain the necessary semester GPA to qualify for “outstanding scholarship” described above.

Or: All students with 6 to 11.9 units attempted that semester with both a 75 percent or better overall completion ratio and an overall cumulative GPA of at least 3.50 in 12 or more previously earned units (including the current semester at Long Beach City College) and who maintain the necessary semester GPA to qualify for “outstanding scholarship” described above.

*Note: Units attempted are shown on the grade slip and are classes with grades of “A,” “B,” “C,” “D” or “F.” A class taken for a grade of “CR” or “NC” does not count in computing the number of units attempted.

Scholarship Society (A.G.S.)

Long Beach City College has two chapters of Alpha Gamma Sigma, the California Community College honor scholarship society. Students eligible for the Dean’s List are encouraged to apply for membership. Students with a 3.0 overall cumulative GPA in 12 or more units are also eligible for membership.

Kappa Chapter is located at the Liberal Arts Campus. Information and applications are available in Room M226. Delta Chi Chapter is located at the Pacific Coast Campus. Information and applications are available in the Student Affairs Office.

Honors at Entrance

High school graduates are accorded “Honors at Entrance” as a form of recognition for outstanding scholarship. To be eligible, the graduate must have earned a 3.5 GPA or better and must have matriculated to LBCC.

Honors at Graduation

Students graduating with outstanding scholarship are recognized during the graduation ceremony and in the commencement program. To be eligible for honors at graduation, a student must have a cumulative overall GPA based on all college work applied to the degree, no matter where completed, that qualifies for “outstanding scholarship” as described above.

Course Credit & Class Preparation

To earn one unit of credit in a lecture class, you must spend one hour each week, for 18 weeks, in a lecture class session. In addition, you are expected to devote a weekly average of two hours in outside-of-class preparation for each one hour of lecture class time.

To earn one unit of credit in a laboratory, demonstration or practice situation class, you must spend three hours each week, for 18 weeks, in a class session. Some additional outside-of-class preparation will be expected.

For work experience classes, one unit of credit represents 75 hours of paid employment or 60 hours of volunteer work per semester.

Credit/No Credit Courses and Grading

Students may petition to take course(s) on such a basis, rather than for a letter grade. Students choosing this option must complete and submit a Credit/No Credit Option Request Form (available in the Admissions Office), following the instructions on the form, before the term is 30 percent complete (sixth week for semester-long courses).

Students are required to do all work assigned and take examinations as though they were getting a grade. To receive credit, a student must do the work equivalent to a “C” grade or better. Students seeking an associate degree are limited to 20 units on a credit/no credit basis. All courses not applicable to the degree (courses in the 800-band) shall be graded credit/no-credit.

Method of Evaluation

Although courses taken on a credit/no-credit basis do not affect the grade point average at Long Beach City College, the student should consult the catalog of the school to which she/he intends to transfer to determine its policy. Some universities apply the same criteria as Long Beach City College; others count the no-credit (NC) grade as an “F” grade (as do some with an unresolved incomplete) and still others count the credit grades as “C” grades in establishing the total grade point average. The method of evaluation is subject to change. At the time this catalog was published, the method for evaluation (grading) for each course is listed in the catalog description.

Maximum Student Unit Load

The full-time unit load definitions for a regular academic semester are as follows:

A. Minimum full-time unit load: 12 units
B. Normal full-time unit load: 15 units
C. Maximum full-time unit load with waiver: 21 units

For students with good academic standing, i.e., students who are not on any form of probation, the maximum full-time unit load definitions for any one or combination of summer terms are as follows:

A. Minimum unit load for full-time summer status: 6 units
B. Maximum full-time unit load: 10 units
C. Minimum unit load for half-time summer status: 3 units
The requirements by residency category are as follows:

A. **Residents of California** may enroll for up to the maximum full-time unit loads, as stated, during the academic year and summer school.

B. **Non-residents** (unless restricted by visa) may enroll for up to the maximum full-time unit loads, as stated, during the academic year and summer school and must pay non-resident tuition.

C. **High School Students**
   During the academic year eligible high school students may enroll in a maximum of 12 units. During the summer school session eligible high school students may enroll for up to the maximum summer school full-time unit load. High school students who have completed at least the tenth grade may attend with permission of the high school counselor. Others must have a letter of recommendation from the principal.

**Waiver of Maximum Unit Load Limitation**

A. A student may request a **waiver of maximum unit load limitation**, except for the summer session. Under no circumstances will a student be permitted to exceed the defined maximum unit load limitation with waiver. The determination to waive the maximum unit load limitation is the responsibility of the Counseling Department and will be made only for extraordinarily capable students of proven academic ability and excellent past academic performance.

B. To apply for a waiver, a student must meet the following regulations:
   1. The student must be matriculated so that his or her college placement examination scores, transcripts of previous academic performance and other pertinent data are available to the counselor.
   2. The student must apply to the Counseling Office for a waiver no later than two weeks prior to the first day of walk-in registration for the semester concerned. A waiver request after the two-week deadline requires the approval of the Dean, Counseling and Student Support Services.

C. The Vice President, Student Services, reserves the right to grant special waivers in unusual circumstances.

Students enrolled in more units than permitted for his or her classification by these regulations will have his or her program of studies reduced to the applicable allowable maximum by the Dean of Admissions and Records or designated representative.

**Credit by Advanced Placement**

Long Beach City College recognizes the Advanced Placement Program of the College Entrance Examination Board. Course credit is granted for Advanced Placement examinations with a score of three, four or five in those instances in which the department concerned has determined that the material covered is comparable to a specific course offering within that department.

Credit for Advanced Placement will be granted only during the fall and spring semesters to students who have successfully completed or are enrolled in at least 12 units at Long Beach City College. Further information may be obtained from the Dean of Admissions and Records.

Advanced Placement credit is granted for fulfillment of Long Beach City College degree requirements. However, when a student transfers to any other college or university, that institution routinely re-evaluates advanced placement units in accordance with its own internal policies. Thus, advanced placement units remain intact and do not transfer as Long Beach City College courses. Unless otherwise stated, credit is awarded for an AP test score of three, four or five. The number in parentheses after each course is the number of units awarded.

**AP Courses and AA/AS Degree General Education Requirements**

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<th>AP Examination</th>
<th>LBCC Credits Granted</th>
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<td>ART 1P (3) and ART 99P (3)</td>
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<td>Biology</td>
<td>BIO 41P (3), BIO 41LP (1) and BIO 99P (2)</td>
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<td>Calculus AB</td>
<td>Math 60P (5)</td>
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<tr>
<td>Calculus BC</td>
<td>Math 60P† (5) and Math 70P (5)</td>
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<td></td>
<td>†Students who pass both the AB and BC exams receive credit for Math 60P once.</td>
</tr>
<tr>
<td>Chemistry</td>
<td>CHEM 1AP (5) and CHEM 99P (1)</td>
</tr>
<tr>
<td>Comparative Government/Politics</td>
<td>POLSC 2P (3)</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>ENGR 54P (3), and fulfills A.A./A.S. computer proficiency requirement</td>
</tr>
<tr>
<td>Computer Science AB</td>
<td>CBIS 9P (3), and fulfills A.A./A.S. computer proficiency requirement</td>
</tr>
</tbody>
</table>
# Academic Policies

**English (Language and Composition and/or Literature and Composition†)**

*ENGL 99P (6) with an AP score of 3

*Students who have earned a three on either English Advanced Placement exam and have qualified for ENGL on the basis of the English Placement Test may petition to have four units of elective credit substitute for ENGL 105.

ENGL 1P (3) and ENGL 99P (3) with an AP score of 4; ENGL 1P (3) and ENGL 2P (3) with an AP score of 5

†Students who pass both exams receive a maximum of six-units of credit.

**European History**

HIST 1BP (3)

**French Language**

FREN 4P (5) and FREN 99P (1) with an AP score of 5

FREN 3P (5) and FREN 99P (1) with an AP score of 4

FREN 99P (6) with an AP score of 3

**French Literature**

HUMAN 99P (3), to fulfill GE Humanities requirement and FREN 99P (3)

**German Language**

GER 4P (5) and GER 99P (1) with an AP score of 5

GER 3P (5) and GER 99P (1) with an AP score of 4

GER 99P (6) with an AP score of 3

**Latin/Vergil**

HUMAN 99P (3) to fulfill GE Humanities requirement

**Latin/Catullus, Horace**

HUMAN 99P (3) to fulfill GE Humanities requirement

**Macroeconomics**

ECON 1AP (3)

**Microeconomics**

ECON 1BP (3)

**Music Listening and Literature**

Music 40P (3) and MUSIC 99P (3)

**Music Theory**

Music 1P (5) and MUSIC 99P (1)

**Physics B**

PHYS 99P (4) with an AP score of 3

PHYS 2AP (4) with an AP score of 4

PHYS 2AP (4) and PHYS 2BP (4) with an AP score of 5

**Physics C Mechanics**

PHYS 2AP (4) with an AP score of 3

PHYS 3AP (5) with an AP score of 4 or 5

**Physics C Electricity/Magnetism**

PHYS 99P (4) with an AP score of 3

PHYS 3BP (4) with an AP score of 4 or 5

**Psychology**

PSYCH 1P (3)

**Spanish Language**

SPAN 4P (5) and SPAN 99P (1) with an AP score of 5

SPAN 3P (5) and SPAN 99P (1) with an AP score of 4

SPAN 99P (6) with an AP score of 3

**Spanish Literature**

HUMAN 99P (3), to fulfill GE Humanities requirement and SPAN 99P (3)

**Statistics**

STAT 1P (3)

**Studio Art - General**

ART 9P (3)

**Studio Art - Drawing**

ART 15P (3)

**United States Government/Politics**

POLSC 1P (3) - To receive credit for POLSC 1P, student must take POLSC 48 (1), which covers California government and which may be taken Credit by Exam.

**United States History**

HIST 10P (3)

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## High School Articulation Project

Long Beach City College is involved in the High School Articulation Project, which is a joint program with local high schools (i.e. Long Beach Unified School District). The aim of the High School Articulation Project is to assist students to move seamlessly from high school to college. One of the ways this is achieved is through joint faculty articulation agreements. These agreements identify high school courses that overlap all or some of the content of LBCC courses and, therefore, permit students to receive credit and/or take advanced courses at LBCC. Agreements have been approved in a variety of areas. Please contact the LBCC Articulation Office at (562)938-4469 for a current list of articulated courses.

## Credit by Examination

Credit by Examination is a provision whereby a student who is enrolled in the college and is in good standing may, with departmental approval, take an examination for credit in a specific course. The student must have completed at least 12 semester units at Long Beach City College and have the prior approval of the department head and school dean before being allowed to take the examination for credit. Exceptions to the 12-unit limitation must be approved by the office of the School Dean. For courses identified in the High School Articulation Project as eligible for Credit by Examination, the 12-unit limitation does not apply. In all cases, courses eligible for Credit by Examination will be determined by the department.

A. In addition, the department concerned also determines specific standards of student eligibility.
B. The method of evaluation, including a copy of any written exam or a description of its contents, must be approved by the department and kept on file in the department and the office of the School Dean. For courses identified in the High School Articulation Project, a description of the contents of the examination, as developed and approved in the articulation process, must be kept on file in the department.

C. Students who take an exam for credit will be given the grade earned. For high school articulated courses, they will be given the grade earned or receive a “Credit” depending on the method of grading for the course; if they do not pass the examination, there will be no notation made on the transcript and no credit awarded. Units earned through Credit by Examination may not be counted toward the 20-unit residence requirement for the associate degree.

D. A fee will be charged to take Credit by Examination. The fee will be waived for participants in the High School Articulation Project.

Credit by Directed Study Program

The Directed Study Program provides challenge for the talented student. It allows the student in-depth study on any approved topic within a subject area. The following are the basic elements of the program:

1. Students must have earned at least a cumulative 3.0 (B) grade point average.
2. Students must have completed 24 units, at least 12 of which must be earned at Long Beach City College. Credit applied from other colleges must be supported by official transcripts on file with the Records Office.
3. Prior approval of the faculty mentor (the faculty member who directs the study), Department Head and School Dean must be obtained before commencing work on the project under the mentor’s direction. Failure to do so may result in denial of credit for the project.
4. Directed Study may not parallel or equate with work in an approved course within the department. It is expected that Directed Study is of an advanced nature and goes beyond the treatment in an approved course or series of courses. Work involving simply the production of a book report or term paper is not deemed an appropriate project.
5. While the student’s work is of an autonomous nature, it is expected the student will meet at regular intervals with his/her faculty mentor to discuss progress and seek guidance and direction.
6. The product of the directed study will be a written report or an equivalent project which demonstrates an amount of work equal to an approved course of the same number of units—54 hours of work for each unit of credit earned.
7. The project will be evaluated on a standard comparable to that used in the courses within the department granting the credit. The project will be evaluated by the faculty mentor and kept on file in the department office. The completed form will be forwarded through the approval process.
8. One to three units of credit will be granted upon satisfactory completion of a project. Each unit of credit shall be equal to 54 hours of work.
9. Units will be placed on the student’s transcript as Directed Study 99 in the subject matter area.
10. The student shall earn no more than six units in directed study courses.

Statement of Policies for Transfer Credit, Advanced Placement and Credit by Examination for the Associate Degree Nursing Program

General Policy:

Candidates for transfer credit, Credit by Examination and Advanced Placement must meet the same general entrance requirements as all regular students at Long Beach City College. Acceptance into the Associate Degree or Vocational Nursing program is a prerequisite (see the curriculum guides in this catalog or in the Counseling Office for more specific information) for transfer, Credit by Examination and Advanced Placement.

Transfer Credit:

Credit for nursing courses taken at an accredited school of nursing (RN and VN) will be granted upon the following conditions:

1. Candidates must qualify for admission as listed in the general policy statement.
2. Candidates must be recommended by previous school of nursing.
3. Prior approval of the faculty mentor (the faculty member who directs the study), Department Head and School Dean must be obtained before commencing work on the project under the mentor’s direction. Failure to do so may result in denial of credit for the project.
4. Course work must have been completed within the last three years.
5. Credit will be given for science courses comparable to those offered at Long Beach City College or applicant must complete the following science courses at Long Beach City College:
   - Biology 60 - Human Biology I
   - Biology 60L - RN only
   - Biology 61 - Human Biology II
   - Biology 62 - Human Biology III (RN only)
5. Credit for General Education courses will be granted according to the college policy.

Advanced Placement:

Qualifying students will be granted Advanced Placement upon completing the following conditions:

1. All students must qualify for admission as listed in the general policy statement.
2. Request advanced placement in a specific course, in writing, within the first week of that course.

3. Achieve 75 percent on a written objective examination covering the material in that course.

4. Satisfactorily pass a clinical performance examination for that course.

5. Advanced placement for the clinical portion of a course is determined by the individual teaching team.

### Advanced Placement: LVN to RN (Career Ladder)

Licensed Vocational Nurses seeking advanced placement into the Registered Nursing program are urged to review the curriculum guide in this catalog and available in the Counseling Office. The Credit by Examination policy for the college is explained in this catalog and the Nursing Department follows the college policy for granting Credit by Examination.

### Credit by Examination (Challenge Option):

Both Nursing Departments follow the college policy for granting Credit by Examination. Applicants with previous nursing experience must qualify for admission as listed in the General Policy statement.

Applicants with 12 semester units at Long Beach City College are granted credit upon successful completion of theory and practical examinations in the area they are challenging.

Applicants without 12 semester units at Long Beach City College will be allowed to proceed in the program after successful completion of theory and practical examination. To comply with college policy, the credit is withheld until 12 semester units are successfully completed.

Syllabi for nursing courses are available in the Learning Center for the School of Health and Science.

### Credit for Vocational Cooperative Work Experience Education

Long Beach City College recognizes job experience as a valuable learning resource. The Vocational Cooperative Work Experience Education Program affords students the opportunity to earn college credit for the learning, which occurs while working on their jobs.

The creation of measurable learning objectives, to be accomplished by semester’s end, involves the employer directly in the learning process of the student/employee. The work experience instructor visits each job site to validate learning and maintain good communication between the employer and the college.

The student must enroll in two courses: Work Experience (1-3 units), which represents on-the-job learning and does not involve class time; and the coordination class, Work Experience Issues (1 unit), which meets once a week.

### Work hours required for the following amount of units:

<table>
<thead>
<tr>
<th>Units</th>
<th>Paid Employment</th>
<th>Volunteer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 unit Work Experience Class</td>
<td>75 hours</td>
<td>60 hours</td>
</tr>
<tr>
<td>2 units Work Experience Class</td>
<td>150 hours</td>
<td>120 hours</td>
</tr>
<tr>
<td>3 units Work Experience Class</td>
<td>225 hours</td>
<td>180 hours</td>
</tr>
</tbody>
</table>

Further, the student must satisfactorily complete a minimum of seven units (which must include Work Experience and Work Experience Issues) for each semester of enrollment in the Vocational Cooperative Work Experience Education Program. With the completion of both Work Experience and Work Experience Issues, before the end of the semester, a student may earn up to four units per semester, not to exceed 16 units at Long Beach City College. Vocational Cooperative Work Experience Education units meet eligibility requirements for veteran benefits, Social Security and financial aid. Vocational Cooperative Work Experience operates without regard to race, age, sex, religion, color, national origin, handicap, sexual orientation, marital status, ancestry, medical condition (e.g., cancer related) or status as Vietnam era veteran.

Additional information on the program and enrollment is available at the Cooperative Work Experience Education Office, located on the Pacific Coast Campus, (Room AA113), or by calling (562)938-3938.

### Credit for Educational Experience In Military Service

Long Beach City College presently requires three units in a combination of physical education and health education classes for the associate degree. Veterans may be granted these three units of credit toward graduation if they served on active duty for at least 12 continuous months. The student who needs these credits for a degree must have a copy of his/her DD-214 and file number from the Veterans’ Administration to request such credit. Please contact the Veterans Affairs Office at PCC for additional assistance.

If a veteran feels his/her military schooling provided sufficient knowledge in a particular subject area and this credit is needed for graduation or advanced placement, he/she should refer to the section, “Credit by Examination.” Each Department Head handles the particular subjects under his/her administration. Not all departments allow Credit by Examination so check the eligibility requirements carefully, then contact the Department Head involved to make the necessary arrangements for an exam, if permissible.

### Policy on Academic Honesty

It is the policy of the Long Beach Community College District to establish an academic environment in which inquiry is nurtured, individual responsibility is rewarded and academic dishonesty, cheating and plagiarism are not tolerated.
**Policy on Open Courses**

It is the policy of the Long Beach Community College District that, unless specifically exempted by statute, every course, course section or class, the full time equivalent student (FTES) units of which are to be 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.

**Creating a Collegiate Environment**

**In the Classroom**

Creating a proper teaching environment is the cornerstone of getting a good education. Everyone at Long Beach City College is responsible for helping to create this environment, including students. Simple rules of courtesy apply.

1. **Respect for the Instructor** - This means arriving on time, not leaving early, bringing appropriate materials, not speaking with other students while a lecture is in progress, not bringing food or drink to the classroom, not being loud, boisterous or argumentative.

2. **Respect for Other Students** - This means not interfering with the rights of others to listen and participate, not being disrespectful, not using inappropriate language or harassing others in any way.

3. **Academic Honesty** - Lack of honesty in the classroom is considered a very serious offense. Any form of cheating on tests, turning in work which is not one’s own (plagiarism), talking during tests, furnishing false information to instructors or knowingly misrepresenting oneself to the college is grounds for disciplinary action. The consequences of cheating are severe and may include the possibility of expulsion.

4. **Instructor’s Rights** - An instructor has the right to remove a student from class at any time he/she considers a student’s actions to be interfering with a proper collegiate environment. The instructor may also refer the incident to the Dean of Student Affairs for disciplinary action as warranted.

5. **Student’s Rights** - All students have a right to due process. If classroom conflicts occur, discuss them with your instructor during his/her office hours. Additional resources for help include the Department Head, School Dean and Dean of Student Affairs.

**On the Campus**

Like the classroom, creating a proper campus environment is of great importance to assure academic and individual success. The Board of Trustees has established campus-wide standards of student conduct and simple campus rules, which are enforced at all times. These are particularly important in large common areas, such as the cafeteria, bookstore, vending, campus offices, College Center, Student Center, Activities Center, campus quads, athletic areas and other highly frequented areas.

**Standards of Student Conduct**

These standards of student conduct and disciplinary action for violation of rules were established by a student-college staff committee in compliance with section 22635 of the State Educational Code, printed and distributed for students’ information and guidance.

Students shall respect and obey civil and criminal law and shall be subject to the legal penalties for violation of the laws of the city, county, state and nation.

Student conduct at Long Beach City College must conform to district policy and regulations and college procedures. Violations, for which students are subject to disciplinary action, include but are not limited to the following:

1. Willful disobedience to directions of college officials (including faculty) acting in the performance of their duties.

2. Violation of college rules and regulations, including those concerning student organizations, the use of college facilities or the time, place and manner of public expression or distribution of materials.

3. Dishonesty, such as cheating or knowingly furnishing false information to the college.

4. Forgery, alteration or misuses of college documents, records or identification.

5. Unauthorized entry to or use of the college facilities.

6. Obstruction or disruption of classes, administration, disciplinary procedures or authorized college activities.

7. Theft or damage to property belonging to the college, a member of the college community on campus or at a campus activity or a visitor to the campus.

8. Disorderly, lewd, indecent or obscene conduct.

9. Conduct which disrupts orderly operation of the college, or which disrupts educational activities of individual members of the college community including, but not limited to, the harassment of another member of the college community based on race, religion, national origin, gender, sexual orientation or any other legally protected status.

10. Use, possession, distribution or being under the influence of alcoholic beverages, illicit drugs or other controlled substances while on campus or in connection with college activities.

11. Assault or battery, abuse or any threat of force or violence directed toward any member of the college community or campus visitor engaged in authorized activities.

12. Possession, while on the college campus or at a college sponsored function, of any weapons (except by persons given permission by the superintendent-president or members of law enforcement agencies, such as police officers acting in their capacity as officers).
Academic Policies

13. Possession of any article, not usually designated as a weapon, when used to threaten bodily harm.

14. Misuse of any computer technology, including equipment, software, network or Internet access. This includes non-compliance with any policy, regulation, rule or guideline developed by any segment of the College which relates to computer technology.

Campus Rules

1. Smoking is prohibited in all buildings.

2. Eating and drinking are prohibited in all buildings except where food is sold or is part of an approved and scheduled activity.

3. Gambling on the campus is prohibited. Gaming is restricted to the PCC Student Lounge and the LAC Activities Room.

4. Animals not indigenous to the campus grounds are not allowed on campus. Exceptions shall be made for certified companion animals and those animals previously approved by college officials for specific educational purposes.

5. Literature to be distributed must be approved in the office of the Dean of Student Affairs.

6. Children are not allowed on campus unless under the supervision of a parent/guardian or are officially enrolled in an approved college program. Children may not attend classes with a parent/guardian unless the course is specifically designed to include children. Children must be supervised so educational activities are not interrupted and may not be left unattended in common areas, such as the library, computer labs, cafeterias, quads or lounges.

7. Unauthorized vehicles (vehicles without a parking permit) must use visitor parking or purchase a one-day parking permit.

8. Students are required to be fully attired, including shirts or blouses and footwear.

9. Skateboarding, skating and bike riding are prohibited on campus grounds.

10. The use of radios, electronic recording devices, tape or compact disc players without headphones is prohibited on campus except in connection with approved campus/classroom activities.

11. Electronic recording devices may not be used in classrooms without the permission of the instructor.

Summary Suspension

When serious violations of college regulations or procedures occur as a result of inappropriate student conduct, the college shall take immediate action to resolve the problem. This action may occur as follows:

1. Removal from Class by Instructor - Any instructor is authorized to remove a student from his/her class for the class meeting where the infraction occurs, as well as the next scheduled class meeting. The instructor shall immediately report the removal of the student to the Dean of Student Affairs or designee, including the reason for removal, for appropriate action.

2. Summary Suspension by Administration - A summary suspension is an administrative action for the purpose of removing any immediate tension or threat to the well being of students and staff in order to assure that an appropriate academic environment exists. It is also for the purposes of further investigation of reported inappropriate conduct and to determine what disciplinary action, if any, is appropriate. The Dean of Student Affairs or designee may summarily suspend a student for good cause for a period of up to 10 instructional days to ensure that the intended purpose is served.

Disciplinary Action

Violations of the above regulations and rules subject students to the following types of disciplinary action which are to be administered by the appropriate college authorities. These disciplinary actions are listed in degree of severity but not necessarily in sequential order. Disciplinary actions may be imposed singly or in combination. A student has the right to appeal any of the actions through established procedures of due process.

1. Warning - Notice to the student that continuation or repetition of specified conduct may be cause for other disciplinary action.

2. Reprimand - Notice to the student in writing that officially recognizes a violation of the standards of student conduct or campus rules. The reprimand admonishes the student to avoid future infractions in order to avoid additional formal action.

3. Probation - An official disciplinary action which returns the offender to the college community on a promise of appropriate future behavior. Any violation of this promise mandates formal action.

4. Social Suspension - Social Suspension limits a student’s attendance on campus to scheduled classroom hours. Other privileges can be set forth in the Notice of Social Suspension for a specified period of time. The imposition of social suspension involves notification in writing of the reason for social suspension to the student(s) or president of the student organization involved.

5. Disciplinary Suspension - Disciplinary suspension follows a hearing based on due process of law. It shall be invoked by the college president, appropriate administrator, or other staff members designated by the president upon students for misconduct when other corrective measures have failed or when the seriousness of the situation warrants such action.
6. **Expulsion** - An expulsion is a long-term or permanent denial of all campus privileges including class attendance. The Board of Trustees may expel a student after a hearing by a campus body or upon recommendation of the Superintendent-President. Permanent expulsion and active prosecution shall automatically result for any student found to be in possession of a gun. Board action is not necessary in this instance.

7. **Restitution** - Reimbursement for damage or for mis-appropriation of property. Reimbursement may take the form of appropriate service to repair or otherwise compensate for damage.
Degrees and Programs

Associate Degree and Transfer Programs

In accordance with the Long Beach City College mission statement, our school offers three possible degree patterns. These three patterns are listed below as Plan A, B and C. If a student wants to select courses to prepare for a career immediately after graduation from Long Beach City College, he or she should choose Plan A. Under Plan A a student can finish an Associate Degree and combine it with one of Long Beach City College’s Certificate Programs or prepare for transfer. Many employers prefer their employees to have both a degree and a certificate. If students are interested in an Associate Degree and a career, then Plan A should be followed. All students, however, should be aware that such a plan requires continuous enrollment. All students seeking such career goals need advice to achieve good results. To accomplish the most with your time in school, students are encouraged to meet with a counselor. Counselors know best how to combine a degree with a Certificate program.

If a student wants to complete an Associate Degree and transfer to a B.A./B.S. program, then the general education (G.E.) patterns Plan B and C should be followed. Plan B will prepare students for transfer to the California State University System. Plan C will prepare students for transfer to either the University of California or the California State University systems. It is imperative for students to see a counselor for use of this plan. Students may also choose to attend a private university or college, or they may wish to transfer out of state. If you have such plans, see a counselor or go to the Transfer Center. While the UC System requires continuous enrollment, the CSU adds a definition of continuous attendance for successful transfer. If students are careful in the courses they select, they will be able to complete an Associate Degree and a transfer program at the same time. The best way for a student to prepare such a program would be to make an appointment with a counselor. Long Beach City College’s counselors have a complete list of transfer requirements and can help to design the most efficient program to meet your needs.

Finally, the G.E. patterns listed as Plan A, B and C represent three different ways one can prepare for a degree. The plan best suited for you requires careful consideration. Long Beach City College Counselors have the knowledge you need to get the most out of your education. If a student wanted a program that combined a career, transfer and a degree, a counselor could show him/her how to achieve all three in the shortest amount of time. Therefore, making an appointment with a counselor as soon as possible is probably the first logical step everyone should take in their educational career.

STUDENTS SHOULD BE ADVISED THAT THE ASSOCIATE DEGREE COMPRISSES TWO MAJOR COMPONENTS: A GENERAL EDUCATION PATTERN AND A FIELD OF CONCENTRATION. A TRANSFER PROGRAM COMPRISSES THREE MAJOR COMPONENTS: ADMISSION REQUIREMENTS, A GENERAL EDUCATION REQUIREMENT AND A MAJOR FIELD OF PREPARATION.

Determination of Requirements to be Used for Certificates, the A.A./A.S. Degree and General Education Certification

Students may be granted an A.A./A.S. Degree and/or be certified for general education based on the requirements in effect at any time between their initial enrollment at Long Beach City College and the present, provided continuous enrollment is maintained throughout. If continuous enrollment is not maintained, students may only use requirements in effect beginning with such time as continuous enrollment was established and maintained to the present.

Definition of Continuous Enrollment

“Continuous enrollment” shall be defined as enrollment in, and receiving a grade for, at least one class per academic year at Long Beach City College or any other accredited higher educational institution, after having initially enrolled at Long Beach City College. Continuous enrollment secures “catalog rights” for the student. Catalog rights are defined as guaranteeing students the specific degree requirements of the year they first enrolled. Continuous enrollment applies to all students interested in earning an Associate Degree or transferring to the University of California.

“Continuous Attendance” is a definition of enrollment that applies to those Long Beach City College students interested in transferring to the CSU system. Since the CSU system defines “continuous attendance” as enrollment at an accredited college “...for at least one semester or two quarters in any one calendar year,” transfer students must be careful to combine “continuous enrollment” with “continuous attendance.” The difference between these two definitions rests on how a school defines a “year.” Long Beach City College must use the academic year (fall and spring semesters) and the CSU system must use the calendar year (January to December). When students combine continuous enrollment and attendance definitions, they need to attend at least one class every semester until they transfer. Only this way can they secure their catalog rights. Because of the confusion these two definitions might create, Long Beach City College strongly recommends that all new students see a counselor.

Acceptable grades that will satisfy continuous enrollment are A-F, CR and NC. This policy is effective for students who established continuous enrollment at the start of the Fall 1983 semester or later. Coursework transferred from other institutions will be evaluated for satisfaction of all Associate Degree requirements, including the proficiency requirements and for certificates of completion.
Military personnel who had to withdraw with grades of MW because of military orders will be given one academic year after the end of the military conflict to return to college without losing their continuous enrollment status and catalog rights.

**Students who encounter problems fulfilling both the general education and the field of concentration requirements in effect for any one year may appeal immediately to the Graduation Appeals Committee.**

**Awarding of a Second Associate Degree:**
An additional Associate Degree may be awarded to students who have met all requirements, including residency requirements, for another field of concentration. Degrees may be earned concurrently. For an additional degree, students may use any Long Beach City College catalog rights for which they are eligible (see the section of the college catalog titled Associate Degree and Transfer Programs or consult a counselor).

**Philosophy of Education Leading to a Career, a Career Certificate or a Certificate of Completion.**

Long Beach City College provides many opportunities for students to gain marketable skills. Critical thinking experiences are included as part of the training. Changing technologies have placed greater demands on workers and critical thinking skills are necessary for success in most occupations.

Occupational programs teach the theory and the practical applications of a career. The goal of an occupational program is gainful employment. The course of study for such a program will enable students to become familiar with the requirements and methods of an occupation to progress beyond an entry-level position. One of the college’s goals is to help students make informed career decisions.

A career certificate is defined as a course of study consisting of at least 18 units; a certificate of completion is defined as a course of study consisting of less than 18 units—both in a specific occupational area. Students must complete 50 percent or more of the total units required for a certificate while enrolled at Long Beach City College. For specific unit requirements, consult the program director. All career certificates and certificates of completion are reviewed by advisory committees comprised of representatives of the industry, students and faculty. This assures that programs meet the current and future needs of industry.

**Criteria**
A goal of education leading to a career is to make occupations accessible to students. The elements of such an education include: understanding the origins, technology, skills and theories involved in that occupation. Part of any occupational program should include the ability for students to analyze changing conditions in their areas of employment. Finally, an understanding of how a career fits into the current economy helps students to find alternatives when their career changes over time.

**Philosophy of General Education, Associate Degrees**
General education is designed to introduce students to the variety of means through which people comprehend the past, present and future world. It reflects the conviction of Long Beach City College that those who receive an Associate Degree should possess in common certain basic principles, concepts and methodologies of the various disciplines. The general education experience should enable individuals to use this knowledge when evaluating and appreciating the physical environment, arts, culture and the society in which they live. Most importantly, since education is a life-long process, general education should lead to better self-understanding and the capacity to adapt, respond and grow in a changing world.

In its general education program, Long Beach City College strives to create coherence and integration among the separate requirements. Further, through this program, the college involves students in examining the values inherent in proposed solutions to major social problems.

**Criteria**
Since it is expected to produce the skills, methods or knowledge common to all, a course which satisfies the general education requirement should be of an introductory or survey nature. In addition, a non-survey course may qualify as general education if its course design incorporates a substantial integration of the basic principles and methodologies of the discipline in relation to the specific subject matter of the course.

**Plan A:**

**Associate Degree (Degree and/or Career Option)**

1. Students may use this plan to simply complete an Associate Degree.
2. Those students interested in preparing for a career upon graduation may use this plan by combining the Associate Degree with a Certificate Program.
3. This plan may also be used to combine a career, degree and transfer goals.
4. Students must maintain continuous enrollment and complete a field of concentration.
5. If you are considering transferring to CSU or UC and need additional units to complete the 18 unit general education requirement for Plan A, it is recommended that you select needed units from the CSU General Ed/Breadth or the Intersegmental General Education Transfer Curriculum (IGETC).
6. For the best program see a counselor.
**Plan B:**  
*General Education Certification Pattern for CSU Transfer and The Associate Degree*

1. Students may use this program to combine the CSU general education requirements with an Associate Degree.
2. Those students interested only in transfer to a CSU can achieve that goal by following the certification pattern listed here.
3. To complete an Associate Degree with this program, a student must complete a field of concentration and the Associate Degree general education and proficiency requirements.
4. Students must maintain continuous attendance.
5. See a counselor to select courses which meet both CSU and Associate Degree requirements at the same time.

**Plan C:**  
*Intersegmental General Education Transfer Curriculum (IGETC) for the UC/CSU Systems and the Associate Degree*

The Intersegmental Committee of the Academic Senates for the combined university and college systems in the state of California recently approved the Intersegmental General Education Transfer Curriculum (IGETC) which was implemented Summer 1991.

1. The IGETC is a series of courses that community college students can use to satisfy lower division general education requirements at any CSU or UC campus.
2. The IGETC provides an option to the California State University General Education requirements and replaces the University of California Transfer Core Curriculum.
3. Completion of the IGETC is not a requirement for transfer to a CSU or UC, nor is it the only way to fulfill the lower-division general education requirements of the CSU or UC prior to transfer. Students may find it advantageous to take courses at the community college fulfilling CSU’s General Education requirements or those of a particular UC campus.
4. To complete an Associate Degree with this program, a student must complete a field of concentration and the Associate Degree general education and proficiency requirements.
5. Students must maintain continuous attendance.

**Plan A**

*Additional Graduation Requirements*

1. **Units** - The Associate Degree requires a minimum of 60 units passed, including the field of concentration, required general education courses and free electives (if applicable) as defined in the college catalog. The curriculum guide for the field of concentration and the LBCC graduation requirements identify the exact number of units.
2. **Scholarship** - An overall grade point average (G.P.A.) of 2.0 (“C” average) based on all accredited college work which is applied to the degree, no matter where completed.
3. **Residence** - Either a.) a minimum of 20 units within the last 30 units of work applied to the degree must be completed at LBCC or b.) at least 50 percent of the units required for the degree must be completed at LBCC.
4. Students must maintain continuous attendance.
5. **Field of Concentration** - Completion of 50 percent or more, in residence (which may include credit earned by exam, where applicable), of the requirements for the chosen field of concentration as defined in the appropriate curriculum guide. The field of concentration, the general education and the proficiency requirements must be those in effect for the same year. In addition, a curriculum guide may be developed to meet the educational needs of individual students which would include two or more appropriately related subject areas.

Such an alternate plan requires the approval of the appropriate School Dean and the office of School and College Relations.

**Note:** There is no “double-counting”—that is, courses required for the field of concentration may not also fulfill general education requirements, unless specifically noted.

5. **General Education and Proficiency requirements** - Refer to Plan A for the requirements in general education and proficiency in reading, writing, mathematics and computers. The field of concentration, the general education and the proficiency requirements must be those in effect for the same year. A student may use a course to fulfill a general education requirement in effect at the time the course was completed, even though the course may have been subsequently removed from the list of approved general education courses.

6. **Matriculation** - Matriculation materials must be submitted to the Admissions and Records Office prior to the application for graduation.

Changes to the Associate Degree requirements may be made after the printing of the catalog. Students should consult a counselor or the appropriate Associate Degree curriculum guide to determine the current status of degree requirements. Students who encounter problems...
fulfilling both the general education and the field of concentration requirements in effect for any one year may appeal immediately to the Graduation Appeals Committee. Completing the degree requirements is the responsibility of the student.

These requirements become effective for students entering the 1992 Summer session. Students who entered Long Beach City College prior to the 1992 Summer session and who have been continuously enrolled may use the graduation requirements in effect at any time between their initial enrollment at Long Beach City College and the present.

“Continuous enrollment” is defined as enrollment in, and receiving a grade for, at least one course per academic year at either Long Beach City College or any other accredited higher education institution, after having initially enrolled at Long Beach City College. Acceptable grades that will satisfy continuous enrollment are A-F, CR and NC. Students enrolled in non-credit courses may qualify for continuous enrollment if the instructor has noted their satisfactory participation in the class rollbook. This policy is effective for students who established continuous enrollment at the start of the Fall 1983 semester or later.

Coursework transferred from other institutions will be evaluated for satisfaction of all associate degree requirements, including the proficiency requirements, and for certificates of completion.

**Plan B**

**Additional Requirement Information for California State University**

1. To obtain a Bachelor’s Degree from any of the California State University campuses, students are required to complete a minimum of 48 semester units of general education courses in the following areas: Area A (9 units), Area B (12 units), Area C (12 units), Area D (12 units), Area E (3 units).

Up to 39 lower-division units may be completed at and certified [see below] by California community colleges. Long Beach City College recommends the pattern of 39 lower-division units as listed in Plan B. After the student has transferred, the CSU campus will then specify a minimum of nine more upper-division units to be taken primarily in Areas B, C and D.

[Certification] means that LBCC will officially designate on transcripts sent to any CSU those general education courses, which have been completed, and then the CSU campus will accept those courses toward fulfillment of the breadth requirements. It is very important for students to consult with their counselor regarding the selection of courses from a valid list for certificate purposes.

2. No course may be used to fulfill more than one general education requirement. In most cases you may not use courses from your major department to also fulfill general education requirements (“double-counting”) unless the same course is required both in your major and in general education and no alternative is available.

3. All courses numbered 1-99 in the catalog will transfer to the CSU at least as elective credit.

4. Completing the general education requirements and the major requirements is the responsibility of the student.

**General Education-Major Requirements**

The Baccalaureate Degree has two major components: general education and a major field of study. The major allows one to concentrate in depth in a field of study. General education, which should be done primarily at the lower division level (first two years of college), is designed to provide a common educational overview of the great accomplishments of humanity.

While attending Long Beach City College, students planning to transfer to the California State University system should follow the recommended pattern of general education-breadth requirements listed. (Note: Courses that fulfill these CSU requirements do not necessarily meet the requirements for the University of California system).

In addition, students should take the specific lower division courses required for their chosen major; these are listed on transfer curriculum guides available in the Counseling Centers. Careful educational planning will enable students to prepare for transfer and also complete the graduation requirements for an Associate Degree. Consult a counselor for assistance in correlating these requirements.

**Admission Requirements**

Students may apply to any of the 22 campuses of the California State Universities: Bakersfield, Channel Islands, Chico, Dominguez Hills, Fresno, Fullerton, Hayward, Humboldt, Long Beach, Los Angeles, Monterey Bay, Northridge, Pomona, Sacramento, San Bernardino, San Diego, San Francisco, San Jose, San Luis Obispo, San Marcos, Sonoma and Stanislaus.

**Lower Division Transfers** - Undergraduate transfer applicants with fewer than 56 transferable semester units of study may qualify for regular admission if they are eligible as freshmen and have been in continuous attendance since high school graduation; or were eligible as freshmen except for the subject requirements and have completed appropriate college courses in the missing subjects (all transfers must have a 2.0 minimum grade point average and be in good standing at last college attended). Applicants not eligible as freshmen cannot be admitted as lower division transfers. They must establish eligibility by completing the requirements for upper division transfers.

Undergraduate transfer applicants with fewer than 56 semester units of transferable college credit, who have not completed the subject requirements, may do so by:
1. Completing appropriate courses with a “C” or better in adult school or high school summer sessions; OR
2. Completing appropriate courses in college with a “C” or better. One course of three semester (or four quarter) units will be considered equivalent to one year of high school study; OR
3. Earning appropriate scores on specified examinations.

Upper Division Transfers - Upper division transfers may qualify for admission if they have completed 56 transferable semester (84 quarter) units and have completed appropriate college courses to make up any missing college preparatory subject requirements. (It is also possible for an applicant eligible as a freshman to be admitted as an upper division transfer.)

The missing college preparatory subject requirements may be made up in the following ways:
1. Complete the missing subjects in ways specified for lower division applicants; OR
2. a. High school graduates prior to 1988: Complete with grades of “C” or better the CSU general education requirements in communication in the English language (9 units in Areas A1, A2, A3) and math (from Area B4); OR
   b. 1988 and later high school graduates: Complete with grades of “C” or better a minimum of 30 semester (45 quarter) units selected from courses in English, arts and humanities, social science, science and math of at least equivalent level to courses that meet general education or transfer curriculum requirements. Each student must complete all of CSU general education requirements in communication in the English language (9 units in Areas A1, A2, A3) and the general education requirement in math (from Area B4) as part of the 30-semester unit requirement.

Please consult with the Long Beach City College Counseling Department and Transfer Center regarding appropriate courses and tests to satisfy the subject requirements, as well as continuous attendance issues and criteria used to determine eligibility as first-time freshman.

Courses numbered 1-99 in the Long Beach City College catalog are transferable as general education and/or elective credit to the CSU. Students with 60 transferable units will be admitted as juniors. A maximum of 70 semester transferable units earned in a California community college will be accepted by a CSU campus towards the baccalaureate degree.

Some programs are impacted at various CSU campuses when the number of applicants received in the first month of the admission filing period is greater than the number of spaces available. For these pro-grams, students are urged to consult with a Long Beach City College counselor to be aware of the filing deadlines and any supplemental admissions criteria.

Plan C

Additional Information for University of California

A student who plans to transfer to one of the nine campuses of the University of California system (Berkeley, Davis, Irvine, Los Angeles, Riverside, San Diego, San Francisco, Santa Barbara and Santa Cruz) is well advised to concentrate on university and college requirements and on available prerequisite and introductory courses required by the major. The specific UC requirement for American history and institutions is met by those students who have earned a grade of “B” or better in their high school history and government classes.

Courses acceptable at the University of California are identified as such at the end of each catalog description (see courses of instruction). A student may transfer up to 70 semester units from Long Beach City College.

Admission Requirements

There are basically three options by which a transfer student from Long Beach City College may meet University of California admission requirements. In all cases, transfer students who are California residents must have at least a “C” average (2.0) in all transferable coursework to be admitted to the University. Other requirements depend on whether a student was eligible for admission to the university when he/she graduated from high school. (Note: There are changes in the “A-F” subject requirements for students who graduated from high school June 1986 and later.) The options are as follows:

Option 1: If a student was eligible for admission to the university when he/she graduated from high school, that student may transfer at any time provided that a “C” average in transferable community college courses has been maintained.

Option 2: If a student was not eligible for admission after high school because subject requirements were not met, the student may take college courses in the subjects which were missed and transfer upon their completion. Students need a grade of “C” or better in their high school history and government classes. The specific UC requirement for American history and institutions is met by those students who have earned a grade of “B” or better in their high school history and government classes.

Option 3: If a student was not eligible for admission after high school graduation because they did not achieve the required score on the Eligibility Index and may also have lacked the required “A-F” subjects, the student must:

1. Complete 60 semester units of transferable college credit with a grade point average of at least 2.4 and satisfy either (2) or (3) below.
(2) Complete appropriate college courses with a “C” grade or better in the “A-F” subjects that were lacking. (The university will waive up to two units, i.e., two academic years, of the required high school coursework except in math and English.)

(3) Complete with grades of “C” or better the following college courses:
   (a) English: one transferable college course in English.
   (b) Math: math courses equivalent to three years of high school math (i.e., elementary algebra, intermediate algebra and geometry); or one course in math or statistics for which intermediate algebra is the prerequisite (for applicants who graduated prior to June 1986, the math course must have elementary algebra as a prerequisite).
   (c) U.S. history, lab science, foreign language: one transferable college course selected from these subjects. Students are advised to see a counselor to ensure they are following the correct academic program.

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Private Colleges and Universities

Transfer Information

Private colleges and universities, often called independent institutions, offer a diversity of educational programs and opportunity. There are great differences in size, educational purpose and emphasis among the more than 50 independent colleges and universities in the state of California.

Long Beach City College has developed curriculum guides for many popular majors at nearby independent colleges and universities. The Library, Transfer Center and Career Planning Center also have complete sets of college catalogs for inspection and reference. It is advisable for students to write directly to the independent college or university for a catalog and information concerning their particular interest or major.

Transfer students who plan to attend a private college or university are encouraged to consult with a college counselor to plan their academic program.

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Long Beach City College Certificate and Degree Programs

Long Beach City College provides students with an instructional program in higher education that may culminate in a Completion Certificate, a Career Certificate, an Associate in Arts or an Associate in Science Degree or appropriate preparation for transfer to a four-year college or university.

Certificate (Career or Completion) and/or Associate Degrees are offered in the fields of concentration on the following lists(s). The requirements for each field of concentration are listed on the curriculum guides available in the Counseling Center at the Liberal Arts and the Pacific Coast campuses as well as the LBCC Catalog.

In addition, a Curriculum Guide may be developed to meet the educational need of individual students that would include two or more appropriately related subject areas. Such an alternate plan requires the approval of the appropriate instructional dean and the Office of School and College Relations.

The notations used in the following table are:

- **T=Transfer Preparation** – College courses in general education and the major taken during the freshman and sophomore years to prepare for transfer to a university (i.e. CSU-Long Beach, Chapman, UC-Irvine, USC, etc.)
- **A=Associate Degree** – Two-year college degree awarded by Long Beach City College which includes general education courses and a major.
- **CA=Career Certificate** – One to two year programs in occupational/technical areas at Long Beach City College which provide training in job skills and employment opportunities.

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<th>CA</th>
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**BUSINESS**

| X | X | X | Accounting |
| X | X | Accounting Clerk |
| X | X | Business Administration |
| X | X | Business, General |
| X | X | Business, International |
| X | X | Business, Management |
| X | X | Marketing |
| X | X | Merchandising |
| X | X | Real Estate |
| X | X | Retail Management |
| X | X | Retail Management, Food Industry Emphasis |
| X | X | Retail Merchandising Management |

**Computer & Business Info Systems**

| X | X | Computer Application Specialist |
| X | X | Computer Programming (Bus. Info. Systems) |

**Computer & Office Technologies**

| X | X | Administrative Assistant |
| X | X | Computer Application Specialist |
| X | X | Data Entry (Office Technologies) |
| X | X | Desktop Publishing |
| X | X | Legal Secretary |
| X | X | Medical Transcription |
| X | X | Office Assistant |
| X | X | Word Processing Specialist |

**Tourism**

| X | X | Baking |
| X | X | Culinary Arts |
| X | X | Hotel Management |
| X | X | Food & Beverage Management |
| X | X | Travel Industry |
### Degrees and Programs

**SCHOOL OF CREATIVE ARTS & APPLIED SCIENCE**

**CREATIVE ARTS**

- **Art**
  - Desktop Publishing
  - Photography

**Music/Radio/Television**

- Music
- Commercial Music: Arranger
- Commercial Music: Professional Instrumentalist
- Commercial Music: Professional Technology
- Commercial Music: Professional Vocalist
- Commercial Music: Record Producer
- Commercial Music: Recording Engineer
- Commercial Music: Songwriter
- Radio/Television: Broadcast News
- Radio/Television: Multimedia Production
- Radio/Television: Performance
- Radio/Television: Producer

**Speech Communication**

- Speech Communication

**Theatre Arts**

- Dance
- Film
- Theatre: General, Acting, and Technical Emphases

**APPLIED SCIENCES**

**Child Development**

- Child Development
- Early Childhood Education
- School Age Child Care
- Special Education Assistant

**Family & Consumer Studies**

- Dietetics Program: Dietetic Technician and Dietetic Service Supervisor
- Family and Consumer Studies

### SCHOOL OF HEALTH & SCIENCE

**MATHEMATICS & SCIENCE**

- Life Science
- Biological Sciences

**Mathematics & Engineering**

- Engineering
- Mathematics
- Physical Science
- Physical Sciences

**NURSING & ALLIED HEALTH**

**Allied Health**

- Medical Assisting: Clinical and/or Administrative Certificate
- Diagnostics Medical Imaging (Radiology Technology)

**Nursing**

- Associate Degree (RN Program)
- LVN to RN Career Ladder Program
- Vocational

### SCHOOL OF LANGUAGE ARTS & PHYSICAL EDUCATION

**LANGUAGE ARTS**

- English
  - Desktop Publishing
  - English: Language & Literature, Creative Writing Sequence
  - Journalism: Newspaper/Magazine, Public Relations, Publication Specialist

**PHYSICAL EDUCATION**

- Physical Education/Recreation

### SCHOOL OF TRADES & INDUSTRIAL TECHNOLOGIES

**TRADE & INDUSTRIAL**

**Aero-Pilot Training**

- Aviation (Professional Pilot)
- Aviation Administration

**AutoBody**

- Auto Body Repair
- Auto Mechanics/Diesel
- Advanced Transportation

**Technology: Alternate Fuels**

- Advanced Transportation
**Degrees and Programs**

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**COMPLETION CERTIFICATES**

Long Beach City College offers a variety of Completion Certificates. A completion certificate certifies a competency in a given area and requires 18 units or less. Listed below is a list of Completion Certificates as well as a list of curriculum guides that provide detailed information required to obtain a Completion Certificate, etc.

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### COMPLETION CERTIFICATE
- Hotel, Restaurant: Institutional Cooking 1
- Hotel, Restaurant: Institutional Cooking 2
- Introduction to Baking
- Java Web Programmer
- Legal Secretary
- Mammography
- Mechatronics
- Medical Insurance Billing
- Microsoft Access
- Microsoft Excel
- Microsoft Word
- Network Cabling Specialist
- Network Installation
- Network Installation and Design
- Nurse Aide
- Oracle Developer
- Phlebotomy
- Pre-apprenticeship Training
- Professional Gourmet Cooking
- Travel Destinations
- Travel Industry Management Specialist
- Windows 2000 Network Administrator

### CURRICULUM GUIDES
- Culinary Arts
- Medical Assisting
- Electronics Technology
- Veterinary Technology
- Computer Business Information Systems
- Legal Secretary
- Diagnostic Medical Imaging
- Network Installation and Design
- Medical Assisting
- Data Entry
- Administrative Assistant or Computer Application Specialist or Office Assistant or Word Processing
- Administrative Assistant or Legal Secretary or Office Assistant or Word Processing
- Electronics Technology
- Vocational Nursing
- Computer Business Information Systems
- Medical Assisting
- Carpentry Technology/Trade
- Culinary Arts
- Travel Industry
- Computer Business Information Systems
The following certificate and Associate Degree programs are offered by Long Beach City College. Consult Curriculum Guides available in the Counseling Centers for information regarding grade point average, general education/graduation requirements and additional procedures and references. Please refer to this key for the symbols used in the following pages:

†This course has a prerequisite; prerequisite courses must be completed with at least a "C" or "CR" grade (see catalog or schedule of classes).

‡If you have been awarded the LBUSD articulation certificate for this course, you may be eligible to receive college credit. Consult Counseling or School/College Relations Office for procedure to follow.

*In general, “double-counting” is not allowed. That is, one course may not be used to fulfill both a field of concentration requirement and to fulfill a general education requirement. This class is an exception to that rule.

¶Meets the computer proficiency requirement for the degree.

ACCOUNTING
Career Certificate and/or Associate in Arts
Students prepare for an entry-level position in the accounting office. Student is provided partial lower division preparation for the baccalaureate degree in Business Administration. This certificate will prepare students for a variety of entry-level accounting positions. This Associate Degree will prepare students for career advancement once a certificate has been earned. Appropriate course selection will also facilitate transfer in a related major. For more departmental information call (562)938-4330 or 938-4332.

REQUIRED COURSES UNITS
ACCTG1A Principles of Accounting (F, SP, S) 4
†ACCTG1B Principles of Accounting (F, SP, S) 4
ACCTG205 Fundamentals of Tax (F, SP) 3
†ACCTG228 Computerized General Ledger Accounting Systems (F, SP) 2
†ACCTG229 Spreadsheet Accounting (F, SP) 3
CAOTC35 Microsoft Office (F, SP) 3
CAOT015 Business Communications (F, SP) 3
CAOTT233 Computer Keyboarding (F, SP, S) 1
GBUS 5 Introduction to Business (F, SP, S) 3
LAW 18A Business Law (F, SP, S) 3

TOTAL UNITS 29

RECOMMENDED but not required courses:
ACCTG18 Credit & Financial Statement Analysis (SP) 3
ACCTG200A Introduction to Accounting 3
ACCTG230 Quick Books Accounting 1
CBIS 6 Introduction to Information Systems (F,SP,S) 4
GBUS 216A-B Fundamentals of Investments (F, S) 1:1
IBUS 40 International Banking and Finance (F) 3

ACCOUNTING CLERK
Career Certificate and/or Associate in Arts
Students prepare for an entry-level position in the accounting office. Student is provided partial lower division preparation for the baccalaureate degree in Business Administration. This certificate will prepare students for a variety of entry-level accounting positions. This Associate Degree will prepare students for career advancement once a certificate has been earned. Appropriate course selection will also facilitate transfer in a related major. For more departmental information call (562)938-4330 or 938-4332.

REQUIRED COURSES UNITS
ACCTG1A Principles of Accounting (F, SP, S) 4
†ACCTG1B Principles of Accounting (F, SP, S) 4
ACCTG205 Fundamentals of Tax (F, SP) 3
†ACCTG228 Computerized General Ledger Accounting Systems (F, SP) 2
†ACCTG229 Spreadsheet Accounting (F, SP) 3
CAOTC35 Microsoft Office (F, SP) 3
CAOT015 Business Communications (F, SP) 3
CAOTT233 Computer Keyboarding (F, SP, S) 1
GBUS 5 Introduction to Business (F, SP, S) 3
LAW 18A Business Law (F, SP, S) 3

TOTAL UNITS 29

RECOMMENDED but not required courses:
ACCTG18 Credit & Financial Statement Analysis (SP) 3
ACCTG200A Introduction to Accounting 3
ACCTG230 Quick Books Accounting 1
CBIS 6 Introduction to Information Systems (F,SP,S) 4
GBUS 216A-B Fundamentals of Investments (F, S) 1:1
IBUS 40 International Banking and Finance (F) 3

ADMINISTRATION OF JUSTICE
Career Certificate and/or Associate in Arts
Students are educated and trained for immediate employment in the criminal justice system. Technical education courses prepare students in the concepts and methodologies of the disciplines. This program also provides partial lower division preparation for the baccalaureate degree in this field. This certificate will prepare students for an entry-level position in a variety of settings and will serve as a foundation for specialization.

This Associate Degree will prepare students for career advancement once a certificate has been earned. Appropriate course selection will also facilitate transfer in a related major. For more departmental information call (562)938-4220.

REQUIRED CORE COURSES UNITS
¶ADJUS2 Introduction to Administration of Justice (F, SP) 3
ADJUS3 Introduction to Criminal Procedures (F, SP) 3
ADJUS4 Criminal Law (F, SP) 3
ADJUS5 Community and Human Relations (F, SP) 3
ADJUS6 Introduction to Evidence (F, SP) 3
ADJUS8 Introduction to Investigation (F, SP) 3

Subtotal units 18

IN ADDITION, select SIX (6) units from the following:
ADJUS10 Writing for Criminal Justice (F, SP) 3
ADJUS12 Crime and Delinquency (F, SP) 3
ADJUS14 Juvenile Law and Procedure (F, SP) 3
ADJUS16 Vice, Narcotics & Organized Crime (F, SP) 3
ADJUS17 Computer Use in Criminal Justice (F, SP) 3
ADJUS18 Police Field Operations (F, SP) 3
ADJUS19 Fingerprint Classification & Identification (SP) 3
ADJUS20 Introduction to Corrections (F, SP) 3
ADJUS40 Street Gangs and Law Enforcement (F, SP) 3
ADJUS45 Drug Abuse and Law Enforcement (INF) 3
ADJUS250 Basic Law Enforcement Training (INF) 16
ADJUS253 Understanding Domestic Violence (F, SP) 3
ADJUS269 Pre-Employment Prep for Law Enforcement (F, SP) 3
ADJUS270AB Work Experience Issues—Administration of Justice (F, SP) 1:1
ADJUS271AB or 272AB or 273AB Work Experience—Administration of Justice (F, SP) 1:1 or 2:2 or 3:3
PUBAD1 Introduction to Public Administration (F, SP) 3

Subtotal units 6

TOTAL UNITS 24

NOTE: Any 200, 300 or 400 band course in Administration of Justice or Public Administration can be applied as an elective to a degree or certificate for this program.

CAREER CERTIFICATE

REQUIRED CORE COURSES UNITS
¶ADJUS 2 Introduction to Administration of Justice (F, SP) 3
ADJUS 3 Introduction to Criminal Procedures (F, SP) 3
ADJUS 4 Criminal Law (F, SP) 3

Subtotal units 9

Complete SIX (6) units from ADJUS and PUBAD courses listed for Associate Degree.

Subtotal units 6

Select NINE (9) units from the following:
†ENGL 1 Reading and Composition (F, SP) 3
†ENGL 105 Fundamentals of Writing 4
POLSC 1 Introduction to Government 3
PSYCH 1 Introduction to Psychology 3
SOCIO 1 Introduction to Sociology 3
†SP 10 Elements of Public Speaking (F, SP) 3
†SP 30 Elements of Group Discussion (F, SP) 3

Subtotal units 9

ALSO complete SIX (6) units from any Foreign Language, Computer/BIS, or other Administration of Justice courses.

Subtotal units 6

TOTAL UNITS (for Career Certificate) 30

NOTE: Any 300 or 400 band course in Administration of Justice or Public Administration can be applied as an elective to a degree or certificate.

ADMINISTRATIVE ASSISTANT

Career or Completion Certificate and/or Associate in Arts

Students prepare for an entry-level administrative assistant position. The Career Certificate courses provide students with the broad background necessary for success in a variety of office environments. This certificate will prepare students for an entry-level position in a variety of business settings and will serve as a foundation for specialization. This Associate Degree will prepare students for career advancement once a certificate has been earned. Appropriate course selection will also facilitate transfer in a related major. For more departmental information call (562)938-3033.

REQUIRED COURSES

UNITs
• CAOTC 31A Microsoft Windows, Beginning (F, SP, S) 1
• CAOTC 39C, D Microsoft Word for Office, Levels 3-4 (F, SP, S) 1:1
• CAOTC 41F Excel for Windows, Intermediate (F, SP, S) 1:1
• CAOTC 44D PowerPoint for Windows, Beginning (F, SP) 1
• CAOTC 45 Telecommunications and the Internet (F, SP) 2
• CAOTC 47A Access for Office Applications, Beginning (F, SP) 3
• CAOTC 215A Microsoft Outlook (F, SP) 2
• CAOTC 15 Business Communications (F, SP) 3
• CAOTC 30 Business Calculating Machines (F, SP) 2
• CAOTC 214A, B Filing A and Filing B (F, SP, S) 1:1
• CAOTC 216 Proofreading Skills (F, SP) 1
• CAOTC 222 Employment Testing and Interviewing (F, SP) 3
• CAOTC 260 Business Telephone Procedures (F, SP, S) 1
• CAOTC 261 Business English (F, SP, S) 3
• CAOTC 263 Customer Service (F, SP) 1
• CAOTT 201 Intermediate Typing/Keyboarding (F, SP) 2

Subtotal Units 30

REQUIRED COMPETENCY: Students must earn a Typewriting Certificate with a minimum typewriting speed of 50 wpm with no more than 5 errors on a 5-minute test by the end of the program.

Select any THREE (3) units from the following:
• ¶CAOTC 31B Microsoft Windows, Advanced (F, SP, S) 1
• CAOTC 35 Microsoft Office (F, SP, S) 3
• CAOTC 39A, B Microsoft Word for Office, Levels 1-2 (F, SP) 1:1
• ¶CAOTC 41E, J Excel for Windows, Beginning & Advanced (F, SP) 1:1
• CAOTC 42A, B Desktop Publishing-Small Business 1 & 2 (F, SP, S) 1:1
• ¶CAOTC 43A-D Desktop Publishing-Business 1-4 (F, SP) 1:1:1:1
• CAOTC 44E PowerPoint for Windows, Adv. (F, SP) 1
• • CAOTC 47B Access for Office Applications, Intermediate (F, SP) 3
• CAOTC 215B Electronic Records Management (F, SP) 2
• CAOTC 220 Hand-Held Electronic Organizers (F, SP) 1
• ¶CAOTC 236A-D WordPerfect, Levels 1-4 (F, SP, S) 1:1:1:1
• CAOTC 246 Computer Financial Calculations (F, SP) 3
• CAOTC 262 Professional Development for the Office (F, SP) 1
• • CAOTC 265 Computer Transcription (F, SP) 2
• CAOTT 202 Advanced Typing/Keyboarding (F, SP) 2
• • CAOTT 209AB Speed/Accuracy Building for Typists (F, SP) 1:1

Subtotal Units 3
### Curriculum Guides

**Completion Certificates:**

**Basic Business Communications Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAOTC 39A</td>
<td>Microsoft Word for the Office, Beg.</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 44D</td>
<td>PowerPoint for Windows</td>
<td>1</td>
</tr>
<tr>
<td>CAOTO 15</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>CAOTO 261</td>
<td>Business English</td>
<td>3</td>
</tr>
<tr>
<td>CAOTO 262</td>
<td>Professional Development for the Office</td>
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</table>

**Total Units:** 9

**Basic Microsoft Office Certificate**

<table>
<thead>
<tr>
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<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CAOTC 35</td>
<td>Microsoft Office</td>
<td>3</td>
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**Total Units:** 3

**Basic Office Skills Certificate**

<table>
<thead>
<tr>
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<th>Title</th>
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</thead>
<tbody>
<tr>
<td>CAOTC 39A</td>
<td>Microsoft Word for the Office, Beg.</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 45</td>
<td>Telecommunications and the Internet</td>
<td>2</td>
</tr>
<tr>
<td>CAOTO 214A</td>
<td>Filing</td>
<td>1</td>
</tr>
<tr>
<td>CAOTO 260</td>
<td>Business Telephone Procedures</td>
<td>1</td>
</tr>
<tr>
<td>AND EITHER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAOTT 200A</td>
<td>Beginning Typing/Keyboarding</td>
<td>1</td>
</tr>
<tr>
<td>CAOTT 200B</td>
<td>Beginning Typing/Keyboarding</td>
<td>1</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAOTT 200</td>
<td>Beginning Typing/Keyboarding</td>
<td>3</td>
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</tbody>
</table>

**Total Units:** 7-8

**Corel WordPerfect Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CAOTC 236A</td>
<td>Word Processing-WordPerfect, Beginning</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 236B</td>
<td>Word Processing-WordPerfect, Intermediate</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 236C</td>
<td>Word Processing-WordPerfect, Advanced</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 236D</td>
<td>Word Processing, WordPerfect, Expert</td>
<td>1</td>
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</table>

**Total Units:** 4

**Microsoft Access Certificate**

<table>
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<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAOTC 47A</td>
<td>Access for Office Applications, Beg</td>
<td>3</td>
</tr>
<tr>
<td>CAOTC 47B</td>
<td>Access for Office Applications, Int</td>
<td>3</td>
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</table>

**Total Units:** 6

**Microsoft Excel Certificate**

<table>
<thead>
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<th>Course Code</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CAOTC 41E</td>
<td>Excel for Windows-Beginning</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 41F</td>
<td>Excel for Windows-Intermediate</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 41J</td>
<td>or Excel for Windows-Advanced</td>
<td>1</td>
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</table>

**Total Units:** 3

**Microsoft Word Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAOTC 39A</td>
<td>Microsoft Word for the Office, Beg.</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 39B</td>
<td>Microsoft Word for the Office, Int</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 39C</td>
<td>Microsoft Word for the Office, Advanced</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 39D</td>
<td>Microsoft Word for the Office, Expert</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Units:** 4

### Advanced Transportation Technology

**Alternate Fuels**

**Associate in Science/Career Certificate**

(Pending CPEC Approval)

The certificate and degree programs will prepare students for an entry-level position as a light/medium and heavy-duty technician in such fields as car, bus, truck and specialty equipment diagnosis and repair industry. Students prepare for a career in alternative fuel vehicle conversion, maintenance and repair using state-of-the-art equipment. Computerized engine management is emphasized. For more departmental information call (562)938-3067.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMECH 490</td>
<td>Introduction to Alternative Fuels</td>
<td>3.5</td>
</tr>
<tr>
<td>AMECH 491</td>
<td>Heavy Duty Alternative Fuels</td>
<td>3.5</td>
</tr>
<tr>
<td>AMECH 492</td>
<td>Heavy Duty Alternative Fuel Diagnosis &amp; Repair</td>
<td>3.5</td>
</tr>
<tr>
<td>AMECH 493</td>
<td>Alternative Fuel Conversion, Diagnosis &amp; Repair</td>
<td>3.5</td>
</tr>
</tbody>
</table>

**Total Units:** 14

Select one (1) class from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMECH 233</td>
<td>Electrical &amp; Fuel</td>
<td>9</td>
</tr>
<tr>
<td>AMECH 236</td>
<td>Computers &amp; Emissions</td>
<td>9</td>
</tr>
<tr>
<td>AMECH 333M1</td>
<td>Electrical Systems (9 weeks)</td>
<td>4.5</td>
</tr>
<tr>
<td>AMECH 333M2</td>
<td>Fuel Systems (9 weeks)</td>
<td>4.5</td>
</tr>
<tr>
<td>AMECH 336M1</td>
<td>Computer Systems (9 weeks)</td>
<td>4.5</td>
</tr>
<tr>
<td>AMECH 336M2</td>
<td>Emissions Controls (9 weeks)</td>
<td>4.5</td>
</tr>
<tr>
<td>AMECH 438</td>
<td>Emission Controls (night)</td>
<td>6</td>
</tr>
<tr>
<td>AMECH 440</td>
<td>Computer Systems (night)</td>
<td>6</td>
</tr>
<tr>
<td>AMECH 442</td>
<td>Fuel Systems (night)</td>
<td>6</td>
</tr>
<tr>
<td>AMECH 444</td>
<td>Electrical Systems (night)</td>
<td>6</td>
</tr>
<tr>
<td>DIESL 282</td>
<td>Diesel Four-Cycle Engine</td>
<td>10</td>
</tr>
<tr>
<td>DIESL 289</td>
<td>Caterpillar 3406 AND 3116</td>
<td>10</td>
</tr>
<tr>
<td>DIESL 293</td>
<td>293AD General Engines</td>
<td>4</td>
</tr>
</tbody>
</table>

**Subtotal Units:** 24

**Total Units:** 31-44

**Completion Certificates**

**Advanced Transportation Technology—Light–Medium Duty Alternate Fuels Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMECH 490</td>
<td>Introduction to Alternative Fuels</td>
<td>3.5</td>
</tr>
<tr>
<td>AMECH 493</td>
<td>A/F Conversion, Diagnosis &amp; Repair</td>
<td>3.5</td>
</tr>
</tbody>
</table>

**Total Units:** 7

**Advanced Transportation Technology—Heavy Duty Alternate Fuels Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMECH 491</td>
<td>Heavy Duty Alternative Fuels</td>
<td>3.5</td>
</tr>
<tr>
<td>AMECH 492</td>
<td>H/D Alt. Fuel Diagnosis &amp; Repair</td>
<td>3.5</td>
</tr>
</tbody>
</table>

**Total Units:** 7

### Advanced Transportation Technology

**Electric Vehicles**

**Completion Certificates**

**Advanced Transportation Technology—Light–Medium Duty Alternate Fuels Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMECH 490</td>
<td>Introduction to Alternative Fuels</td>
<td>3.5</td>
</tr>
<tr>
<td>AMECH 493</td>
<td>A/F Conversion, Diagnosis &amp; Repair</td>
<td>3.5</td>
</tr>
</tbody>
</table>

**Total Units:** 7

**Advanced Transportation Technology—Heavy Duty Alternate Fuels Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMECH 491</td>
<td>Heavy Duty Alternative Fuels</td>
<td>3.5</td>
</tr>
<tr>
<td>AMECH 492</td>
<td>H/D Alt. Fuel Diagnosis &amp; Repair</td>
<td>3.5</td>
</tr>
</tbody>
</table>

**Total Units:** 7

**Consult guides available in Counseling Centers for specific general education and required grades.**
Associate in Science/Career Certificate  
(Pending CPEC Approval)

The certificate and degree programs will prepare students for an entry-level position as a light/medium and heavy-duty technician in such fields as car, bus, truck and specialty equipment diagnosis and repair industry. Students prepare for a career in electric vehicle conversion, maintenance and repair using state-of-the-art equipment. For more departmental information call (562)938-3067.

REQUIRED COURSES  UNITS
AMECH 480 Introduction to Electric Vehicles 3  
AMECH 481 Advanced Electric Vehicles 3  
AMECH 483 Competition Electric Vehicles 3  
AMECH 490 Introduction to Alternative Fuels 3.5
Subtotal Units 12.5
Select SIX (6) units from the following:
ABODY 211 Introduction to Basic Autobody 9
ABODY 214 Painting Techniques 9
ABODY 419AD Auto Body Repair 4  
AMECH 233 Electrical & Fuel 9
AMECH 236 Computers & Emissions 9
AMECH 333M1 Electrical Systems (9 weeks) 4.5
AMECH 336M1 Computer Systems (9 weeks) 4.5
AMECH 336M2 Emissions Controls (9 weeks) 4.5
AMECH 438 Emission Controls (night) 6
AMECH 440 Computer Systems (night) 6
AMECH 444 Electrical Systems (night) 6
DIESL 391A Hydraulics (Forklift) 3
SHMET 201 Sheet Metal 1 10
SHMET 220A Surface Development & Fabrication 1 5
SHMET 420AD Sheet Metal Fabrication 3
Subtotal Units 6
TOTAL UNITS 18.5

COMPLETION CERTIFICATE
Advanced Transportation Technology–Electric Vehicle Certificate

REQUIRED COURSES  UNITS
AMECH 480 Introduction to Electric Vehicles 3  
AMECH 481 Advanced Electric Vehicles 3
TOTAL UNITS 6

AIR CONDITIONING/REFRIGERATION
THEORY & PRACTICAL EXPERIENCE
Career Certificate and/or Associate in Science

Students prepare for entry-level positions in air conditioning and refrigeration. The program includes H.V.A.C.R. (Heating, Ventilation, Air Conditioning and Refrigeration) technology for commercial and industrial applications. Emphasis will be placed on training an individual to have the theory and manipulative skills that will enable that person to be a productive member of the air conditioning and refrigeration industry. For more departmental information call (562)938-3053 or 938-3054.

REQUIRED COURSES  UNITS
†AC/R 213 Psychrometrics, Ducting & Load Calculations 10  
†AC/R 214 Troubleshooting Total Comfort Systems 10
TOTAL UNITS 40

AIR CONDITIONING/REFRIGERATION
THEORY ONLY
Career Certificate and/or Associate in Science

Student is provided the basic theory, upgrading and/or continuing education in H.V.A.C.R. (Heating, Ventilation, Air Conditioning and Refrigeration). For more departmental information call (562)938-3053 or 938-3054.

REQUIRED COURSES  UNITS
Subtotal Units 24
Select SIX (6) units from the following courses:
†AC/R 421A-B Automatic Controls for Refrigeration, Air Conditioning & Heating 3:3
AC/R 422 Air Conditioning System Design & Installation 3
AC/R 400A-B Uniform Mech. Code I & II 3:3
AC/R 450A-B Transport Refrigeration 5:5
AC/R 270AD Work Experience Issues 1
†AC/R 271AD or 272AD or 273AD Work Experience (Maximum 3 units) 1-3
Subtotal units 6
TOTAL UNITS 30

ARCHITECTURAL DESIGN (Transfer)
Career Certificate and/or Associate in Science

This field of concentration is designed to provide foundation knowledge of the practice of architecture with the option of maximizing the number of lower division transfer units. This certificate will prepare students for an entry-level position in a variety of design profession settings and will serve as a foundation for specialization. This Associate Degree will prepare students for a design-related career, and appropriate course selection will facilitate transfer to a professional degree program. The Associate Degree requires only 24 units from the following courses identified with "*". The Program Certificate requires 37 units as specified below. For more departmental information call (562)938-4467.

Complete with a "B" average SIXTEEN (16) units from the following:
†+ARCHT ¶60, ¶61, †64, ¶†62, †65, †66 Architectural Design (F, SP) 8:8:4:4:4:4
Subtotal Units 16

Select EIGHT (8) units from the following:
†+ARCHT 70AB OR †71AD Architectural Design (F, SP) 8:8 or 4:4:4:4
Consult guides available in Counseling Centers for specific general education and required grades.
### ART 3 Modern & Contemporary Art (F) 3
### ART 4 Tribal Art (S) 3
### ART 5 History of Asian Art (F) 3
### ART 11 Pre-Columbian Art (F, SP) 3
<table>
<thead>
<tr>
<th><strong>Subtotal Units</strong></th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL UNITS (including CORE)</strong></td>
<td>27</td>
</tr>
</tbody>
</table>

**RECOMMENDED courses but not required:**
- History 1A-B (History of Western Civilization)
- Art 6 (Art on the Town/Museum Study Visits)
- Art 7 (Art on the Town/Studio and Gallery Visits)
- Art 60AD (Sculpture)

**NOTE:** Students considering transferring should be aware that most four-year schools also require a foreign language proficiency usually in German or French.

### COMPUTER ART & DESIGN PROGRAM

**REQUIRED**
- Art 41 Introduction to Computergraphics (F, SP) 3

**Select SIX (6) units from the following:**
- †Art 42 Intro to 3D & Multimedia Computergraphics 3
- †Art 43AD Computer Art for the Internet (F, SP) 3
- †Art 44AD Computer Art for Graphic Design (F, SP) 3
- †Art 45AD Computer Art for Drawing & Painting (F, SP) 3
- †Art 46AD Computer Art & Design in 3-D Modeling (F, SP) 3
- †Art 47AD Computer Art & Design for Multimedia (F, SP) 3

<table>
<thead>
<tr>
<th><strong>Subtotal Units</strong></th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL UNITS (including CORE)</strong></td>
<td>30</td>
</tr>
</tbody>
</table>

**RECOMMENDED courses but not required:**
- Art 3 (Modern & Contemporary Art)
- †Art 24 (Beginning Watercolor)
- Art 25AD (Applied Design/Crafts)
- Art 35AD (Jewelry/Metalsmithing)
- Art 70AD (Printmaking, Silkscreening)
- Art 80 (Elements of Photography)

### GRAPHIC DESIGN PROGRAM

**Select a minimum of NINE (9) units from the following:**
- †Art 43AD Computer Art for the Internet (F, SP) 3
- Art 44AD Computer Art for Graphic Design (F, SP) 3
- †Art 45AD Computer Art for Drawing & Painting (F, SP) 3
- †Art 55AD Introduction to Graphic Design (F, SP) 3
- Art 56AB Lettering & Typography (One semester only) (F) 1.5

<table>
<thead>
<tr>
<th><strong>Subtotal Units</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>TOTAL UNITS (including CORE)</strong></td>
<td>30</td>
</tr>
</tbody>
</table>

**RECOMMENDED courses but not required:**
- †Art 18AD (Illustration Rendering II)
- Art 19AD (Life Drawing)
- Art 80 (Elements of Photography)
- Art 3 (Modern and Contemporary Art)

### ILLUSTRATION PROGRAM

**Select NINE (9) units from the following:**
- Art 17AD Illustration I: Perspective (F) 3
- Art 18AD Illustration II: Rendering (S) 3
- Art 19AD Life Drawing (One semester only) (F,SP) 3
- †Art 26AD Figure Painting 3
- †Art 45AD Computer Art for Drawing & Painting (F, SP) 3

<table>
<thead>
<tr>
<th><strong>Subtotal Units</strong></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL UNITS</strong></td>
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</tbody>
</table>

**RECOMMENDED courses but not required:**
- Art 25AD (Applied Design/Crafts)
- Art 24/T25AD (Watercolor)
- †Art 32 (Intermediate Design)
- Art 80 (Elements of Photography)

### PRINTMAKING PROGRAM

**Select EIGHT - NINE (8-9) units from the following:**
- †Art 45AD Computer Art for Drawing & Painting (F, SP) 3
- Art 70AD Printmaking, Silkscreen (One semester only) (F, SP) 3
- Art 71AD Printmaking, Intaglio (One semester only) (F, SP) 3
- †Art 72AD Printmaking, Advanced (One semester only) (F, SP) 3
- Art 74AD Advanced Printmaking Overview (Two semesters only) (F, SP) 1.5:1.5

<table>
<thead>
<tr>
<th><strong>Subtotal Units</strong></th>
<th>8-9</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL UNITS (including CORE)</strong></td>
<td>29-30</td>
</tr>
</tbody>
</table>

**RECOMMENDED courses but not required:**
- Art 3 (Modern & Contemporary Art)
- †Art 72AD (Printmaking, Advanced)
SCULPTURE PROGRAM
Select NINE (9) units from the following:
ART 60AD Beginning Sculpture (F, SP) 3
†ART 61AD Intermediate Sculpture (One semester only) (F, SP) 3
ART 62AD Sculpture-Metal Fabrication (One semester only) (F, SP) 3
ART 63AD Sculpture-Metal Casting (One semester only) (INF) 3
†ART 64AD Sculpture-Carving (Two semesters only) (INF) 1.5:1.5
Subtotal Units 9
TOTAL UNITS (including CORE) 30
RECOMMENDED but not required courses:
†ART 32 (Intermediate Design), ART 3 (Modern & Contemporary Art), ART 34AD (Applied Design & Crafts), ART 35AD, †36AD, †37AD, †38AD (Jewelry & Metalsmithing), ART 50, †51AD, †52AD, †53AD (Ceramics).

AUTO BODY REPAIR
Career Certificate and/or Associate in Science
Students learn skills necessary for entry-level jobs in the automotive industry relating to painting & collision repair. For more departmental information call (562) 938-3072 or 938-3054.

REQUIRED COURSES  UNITS
ABODY 211 Introduction Basic Auto Body Repair 9
†ABODY 212 Minor Collision Repair 9
ABODY 213 Major Collision Repair 9
†ABODY 214 Painting Techniques 9
§AMECH 421 Auto Mechanics I 3
SHMET 220A Surface Development & Fabrication 5
WELD 452AD Welding (Acetylene Gas) (Two Semesters Only) 2
WELD 454AB Welding (Inert Gas) (One Semester Only) 2
TOTAL UNITS 48

AUTO MECHANICS
Career or Completion Certificate and/or Associate in Science
Students prepare for entry-level jobs in the automotive service industry. The 200 series of courses are taught during the day and the 400 series in the evening. Students may take day or evening classes or a combination of the two to fulfill the Career Certificate and degree requirements. For more departmental information call (562)938-3075 or 938-3054.

REQUIRED COURSES  UNITS
†AMECH231Engine Repair & Automatic Transmissions 9
OR
AMECH 434 Engine Repair 6
AND
†AMECH 436 Automatic & Standard Transmission 6
†AMECH 232 Brakes/Steering Systems 9
OR
AMECH 430 Auto Wheel Alignment 6
AND
AMECH 432 Automotive Brake Systems 6
†AMECH 233 Auto Electrical & Fuel Systems OR
AMECH 442 Automotive Fuel Systems 6
AND
AMECH 444 Automotive Electrical Systems 6
†AMECH 236 Automotive Emission & Computer Control 9
OR
AMECH 438 Auto Emission Controls 6
AND
AMECH 440 Automotive Computer Systems 6
MACHT 50A Machine Tool Operations and Practices 3
WELD 452AD Welding (General)(one semester only) 2
TOTAL UNITS 41-53

COMPLETION CERTIFICATE
Advanced Transportation Technology–Electric Vehicle Certificate
REQUIRED COURSES  UNITS
AMECH 480 Introduction to Electric Vehicles 3
AMECH 481 Advanced Electric Vehicles 3
TOTAL UNITS 6

Advanced Transportation Technology–Light–Medium Duty Alternate Fuels Certificate
REQUIRED COURSES  UNITS
AMECH 490 Introduction to Alternative Fuels 3.5
AMECH 493 A/F Conversion, Diagnosis & Repair 3.5
TOTAL UNITS 7

Advanced Transportation Technology–Heavy Duty Alternate Fuels Certificate
REQUIRED COURSES  UNITS
AMECH 491 Heavy Duty Alternative Fuels 3.5
AMECH 492 H/D Alt. Fuel Diagnosis & Repair 3.5
TOTAL UNITS 7

NOTE: See LBCC Advanced Transportation Technology Guides for Electric Vehicles or Alternate Fuels for Career Certificate and/or Associate Degree.

AVIATION ADMINISTRATION
(Transfer)
Associate in Science
Students prepare for transfer to four year institutions with similar majors, including the Aviation Administration/B.S. Industrial Tech with option in Aviation Administration at Cal State University, Los Angeles. In addition, students prepare for an entry-level position in any aviation business office. For more departmental information call (562)938-4387.

REQUIRED COURSES  UNITS
ACCCTG 1A Principles of Accounting 4
*ECON 1B Micro Economics Analysis 3
Consult guides available in Counseling Centers for specific general education and required grades.
AVIATION MAINTENANCE
(Airframe/Powerplant Mechanic)

Career Certificate and/or Associate in Science

Students prepare to take FAA Airframe and Powerplant (A & P) Mechanics License Test. With the A & P Mechanic’s license, men and women find excellent career opportunities in general, commercial and military aviation. For more departmental information call (562) 938-3069 or 938-3054.

REQUIRED COURSES UNITS
AVMNT 211 General Aviation Maintenance Tech. 7
AVMNT 241 Airframe Structures 8
AVMNT 242 Aircraft Systems/Components 1 8
AVMNT 243 Aircraft Systems/Components 2 8
AVMNT 251 Powerplant Theory & Maintenance 8
AVMNT 252 Powerplant Systems/Components 1 8
AVMNT 253 Powerplant Systems/Components 2 8
TOTAL UNITS 55

NOTE: Students who are unable to schedule a required course should consult with the department head regarding course substitution. For additional requirements for the aviation administration major at four-year schools, see the Aviation Transfer Curriculum Guide available in the LBCC Counseling Office or online at the LBCC website. To prepare for transfer to Aviation Administration at CSULA, the full 39 unit CSU General Education Certification Pattern should be completed at Long Beach City College.

AVIATION PROFESSIONAL PILOT
(Transfer)

Career Certificate and/or Associate in Science

This field of concentration (when combined with the flight training necessary to get appropriate pilot certificates and ratings) prepares students for an entry-level commercial pilot position. It also provides a foundation for airline and corporate pilot careers. It also prepares students for transfer to four-year institutions with similar majors, including the Professional Pilot/B.S. Industrial Tech with option in Aviation Administration at Cal State University, Los Angeles. For more departmental information call (562)938-4387.

REQUIRED COURSES UNITS
AVPLT 49 Professional Pilot Career Orientation (FS 2 Sat) 1
AVPLT 50 Basic Aeronautical Ground School (Fde, Sde, SSe) 5
AVPLT 51 Commercial Ground School (Se) 3
AVPLT 52 Instrument Ground School (Fe, Se) 3
AVPLT 54 Navigation (Fe) 3
AVPLT 55 Meteorology (Se) 3
*CBIS 2 Software for Business 3
Subtotal Units 30

Select FOUR (4) UNITS from the following courses:
AVPLT 49 Professional Pilot Career Orientation (FS 2 Sat) 1
AVPLT 57 Aircraft Powerplants & Related Systems (Fe.) 3
AVPLT 59 Aero Systems 3
AVPLT 60 AeroLaw 2
AVPLT 61 Basic Simulator Flight Training (Fde, Sde) 2
AVPLT 62AD Advanced Simulator Flight Training (Two units max.) (Fde, Sde) 2
AVPLT 63AD Commercial Pilot-Single Engine Simulator (Two units max.) (Fde, Sde) 2
†AVPLT 65AD Commercial Pilot-Multi Engine Simulator (Two units max.) (Fde, Sde) 2
†AVPLT 66AD Airline Transport Pilot Multi-Engine Simulator (Two units max.) (Fde, Sde) 2
AVPLT 71 Flight & Ground Instructor (Fe) 3
AVPLT 74 Flight Engineer-Turbojet 6
PEPF 70A Physical Fitness for Aviators (Fe) 1
PEPF 70B Physical Fitness for Aviators (Se) 1
Subtotal Units 8
TOTAL UNITS 38

NOTE: Students who are unable to schedule a required course, PEPF 70A, is only offered in fall semesters during their first two semesters (in either order). The required course, PEPF 70A, is only offered in fall semesters. PEPF 70B is only offered in spring semesters.

Subtotal Units 8
TOTAL UNITS 46

NOTE: Students should take PEPF 70A and PEPF 70B during their first two semesters (in either order). The maximum of six (6) units from simulator courses:
AVPLT 56 Meteorology (Se) 3
AVPLT 57 Aircraft Powerplants & Related Systems (Fe) 3
AVPLT 59 Aero Systems (Se) 3
AVPLT 60 AeroLaw (Fde, Sde, SSe) 5
AVPLT 61 Basic Simulator Flight Training (Fde, Sde) 2
AVPLT 62AD Advanced Simulator Flight Training (One semester max.) (Fde, Sde) 2
AVPLT 63AD Commercial Pilot-Single Engine Simulator (One semester max.) (Fde, Sde) 2
†AVPLT 65AD Commercial Pilot-Multi Engine Simulator (One semester max.) (Fde, Sde) 2
†AVPLT 66AD Airline Transport Pilot Multi-Engine Simulator (One semester max.) (Fde, Sde) 2
AVPLT 71 Flight & Ground Instructor (Fe) 3
AVPLT 74 Flight Engineer-Turbojet 6
PEPF 70A Physical Fitness for Aviators (Fe) 1
Subtotal Units 19

Select EIGHT (8) units from the following courses (maximum of six (6) units from simulator courses):
AVPLT 50 Basic Aeronautical Ground School (Fde, Sde, SSe) 5
AVPLT 51 Commercial Ground School (Se) 3
AVPLT 52 Instrument Ground School (Fe, Se) 3
AVPLT 54 Navigation (Fe) 3
AVPLT 55 Meteorology (Se) 3
*PEPF 70A Physical Fitness for Aviators (Fe) 1
Subtotal Units 19
TOTAL UNITS 55

NOTE: It is extremely important to take PHYS 10, or a similar course (a one-semester general physics class) to satisfy the general education science/lab science requirement. This should be done early in the student’s program. PHYS 10 has limited availability at LBCC. If it is
not available when needed, the student should take an equivalent class at another college, such as Cypress or Cerritos College.

**BAKING**

Associate in Science/Career or Completion Certificate

Students learn skills for entry-level positions in retail baking and the food service industry preparing baked goods, fancy desserts and cake decorating. Students can enhance their skills in baking. For more departmental information call (562)938-4502 or 938-4332.

**REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>F&amp;N 250</td>
<td>Nutrition for Culinary (F, SP)</td>
<td>2</td>
</tr>
<tr>
<td>FDSRV 20</td>
<td>Applied Food Service Sanitation Hotel/Restaurant Management (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>FDSRV 204</td>
<td>Introduction to Baking (F)</td>
<td>5</td>
</tr>
<tr>
<td>†FDSRV 205</td>
<td>Baking &amp; Pastry I (SP)</td>
<td>5</td>
</tr>
<tr>
<td>†FDSRV 206</td>
<td>Baking &amp; Pastry II (INF)</td>
<td>5</td>
</tr>
<tr>
<td>FDSRV 207</td>
<td>Commercial Cake Decorating (INF)</td>
<td>5</td>
</tr>
<tr>
<td>†¶FDSRV 213A</td>
<td>Food Preparation I (F, SP)</td>
<td>11.5</td>
</tr>
<tr>
<td>FDSRV 270AD</td>
<td>Work Experience Issues: Food Services (F, SP)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Complete a minimum of three (3) units from the following:**

- †FDSRV 271AD Work Experience: Food Services (F, SP) 1:1:1:1
- †FDSRV 272AD Work Experience: Food Services (F, SP) 2:2:2:2
- †FDSRV 273AD Work Experience: Food Services (F, SP) 3:3:3:3

**TOTAL UNITS** 40.5

**COMPLETION CERTIFICATE**

Applied Food Service Sanitation in Hotel/Restaurant Management Certificate

**REQUIRED COURSE**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDSRV 20</td>
<td>Applied Food Service Sanitation Hotel/Restaurant Management (F, SP)</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS** 3

**BIOLOGICAL SCIENCES**

Associate in Arts or Science

This field of concentration provides the student with an introductory education to this field, not necessarily career related, ending with the associate degree, or a partial lower division preparation for transfer to a baccalaureate degree in the biological sciences. No certificates are offered in the Life Science Department. This Associate Degree will provide the student with an introductory education to this field of study, not necessarily career related, but ending with the Associate Degree or a partial lower division preparation for transfer to a Baccalaureate Degree in the biological sciences. For more departmental information call (562)938-4403 or 938-4418.

**REQUIRED COURSES**

Select courses from the following to total 18 units

- Complete 9 - 12 units in courses from any of the following biological science programs: ANAT (F, SP, S) BIO (excluding BIO 47, 48 or 49) (F, SP, S) PHYSI (F, SP)
- Subtotal Units 9-12

- Complete 6 - 9 units in courses from any of the following physical science or mathematics programs:
  - ASTR, CHEM, ENVRS 1, PGEOG 1 [excluding all other Geography courses], GEOL, MATH [excluding MATH 110, 805 and 815], Physical Science, PHYS
- Subtotal Units 6-9

**TOTAL UNITS** 18

**BUSINESS ADMINISTRATION**

(Transfer)

Career Certificate and/or Associate in Arts

This field of concentration allows students to earn the Associate Degree while partially preparing them for transfer into the business administration major at a university. In addition, it prepares the student for an entry-level position in any business office. This certificate will prepare students for an entry-level position in a variety of business settings and will serve as a foundation for specialization. This Associate Degree will prepare students for career advancement once a certificate has been earned. Appropriate course selection will also facilitate transfer in a related major. For more departmental information call (562)938-4330 or 938-4332.

**REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTG 1A</td>
<td>Principles of Accounting (F, SP, S)</td>
<td>4</td>
</tr>
<tr>
<td>†ACCTG 1B</td>
<td>Principles of Accounting (F, SP, S)</td>
<td>4</td>
</tr>
<tr>
<td>†ECON 1A-B</td>
<td>Principles of Economics (Macro/Micro)</td>
<td>3:3</td>
</tr>
<tr>
<td>LAW 18A</td>
<td>Business Law (F, SP, S)</td>
<td>3</td>
</tr>
</tbody>
</table>

Select ONE of the following options:

- †CBIS 8A BASIC Programming
- *CBIS 8B Visual BASIC Programming
- †CBIS 2 Help Desk Technician–Advanced MS
- CBIS 6 Introduction to Information Systems

Select ONE of the following courses:

- †MATH 37 Finite Mathematics
- †MATH 47 Calculus for Business
- †MATH 50 Precalculus Mathematics
- †MATH 60 First Calculus Course

**TOTAL UNITS** 23-26

**RECOMMENDED courses but not required:**

ACCTG 18 Credit & Financial Statement Analysis (SP) 3
†CBIS 36 Systems Analysis and Design (SP) 3
GBUS 5 Introduction to Business (F, SP, S) 3
IBUS 1 Introduction to International Business (F, SP) 3
*PHIL 7 Introduction to Ethics 3
*PHIL 12 Introduction to Logic 3
†STAT 1 Elementary Statistics 3

Consult guides available in Counseling Centers for specific general education and required grades.
BUSINESS GENERAL

Career Certificate and/or Associate in Arts

This field of concentration is designed to acquaint the student with the business world in general. With additional course work, it can prepare students for either employment or further education. Students with definite career/educational goals are recommended to follow the appropriate curriculum guide for their specific field of concentration, such as Accounting or Business Administration (transfer). This certificate will prepare students for an entry-level position in a variety of business settings and will serve as a foundation for specialization. This Associate Degree will prepare students for career advancement once a certificate has been earned. Appropriate course selection will also facilitate transfer in a related major. For more departmental information call (562)938-4330 or 938-4332.

REQUIRED COURSES  UNITS
GBUS 5 Introduction to Business (F, SP, S) 3
Select ONE of the following courses:
ACCTG 1A Principles of Accounting (F, SP, S) 4
ACCTG 18 Credit & Financial Statement Analysis (F) 3
Select ONE of the following courses:
• CBIS 6 Introduction to Information Systems (F, SP, S) 4
• CAOTC 35 Microsoft Office (F, SP, S) 3
Subtotal units 9-11
Select ANY of the following courses to reach a total of 18 units:
†ACCTG 1B Principles of Accounting (F, SP, S) 4
†ACCTG 230 Quick Books Accounting (F, SP) 3
CAOTO 15 Business Communications (F, SP) 3
CAOTO 30 Business Calculating Machines (F, SP, S) 2
CAOTO 261 Business English (F, SP, S) 3
CAOTT 233 Computer Keyboarding (F, SP, S) 1
IBUS 1 Introduction to International Business (F, SP) 3
MGMT 49A Introduction to Management (F, SP, S) 3
MGMT 60 Small Business Entrepreneurship (F, SP, S) 3
MKTG 42 Retailing Principles and Practices (INF) 3
MKTG 47 Essentials of Marketing (F, SP) 3
THRT 212 Travel Career Employment 3
Subtotal units 7-9
TOTAL UNITS 18

BUSINESS INTERNATIONAL

Career Certificate and/or Associate in Arts

Students learn both theoretical knowledge and practical skills in the wide-ranging field of international business. Transfer students will gain a strong international elective base for further study in a variety of fields. Working students acquire new skills and career opportunities. Any of the courses in this concentration provide knowledge of the global economy and discussions of international issues important to personal growth. These certificates and degree programs prepare students for entry-level positions in a wide range of international business as well as entrepreneurial opportunities. For more departmental information call (562)938-4629.

REQUIRED COURSES  UNITS
†IBUS 1 Introduction to International Business (F, SP) 3
IBUS 20 Export-Import Business Practice (F, SP) 3
IBUS 30 International Business Management (SP) 3
IBUS 40 International Banking & Finance (F) 3
IBUS 52 International Marketing (F) 3
IBUS 60 International Business Law (SP) 3
Subtotal units 18
Complete 3 units from the list of authorized electives listed below.

AUTHORIZED ELECTIVES FOR THE INTERNATIONAL BUSINESS PROGRAM

CERTIFICATE*

ACCTG (Any) Accounting 3
ANTHR 2 Cultural Anthropology 3
CAOT (Any) Computer and Office Technologies: 3 (includes typing, computer keyboarding, computer applications, office technologies)
CBIS (Any) Computer/Business Information Systems 3
ECON (Any) Economics 3
FOREIGN LANGUAGE (Any-including ESL classes) 3
FRSTU (Any) Foreign Studies 6
GBUS 5 Introduction to Business (F, SP) 3
GEOG (Any) Geography 3
IBUS 270AD* Work Experience Issues 1
IBUS 273AD* Work Experience 3
LAW 18 Business Law 3
MGMT (Any) Management 3
MKTG (Any) Marketing 3
POLSC 4 World Politics 3
Subtotal units 3
TOTAL UNITS 21

*BIBUS 270AD/273AD must be taken concurrently.

BUSINESS MANAGEMENT

Career Certificate and/or Associate in Arts

The certificate and degree programs prepare students for a wide range of entry and mid-level positions in business management. Students can enhance their skills in management by studying the internal and external forces that affect all organizations. With additional courses identified on a transfer curriculum guide for Business Administration, students can prepare for a baccalaureate degree in this field. For more departmental information call (562)938-4332 or 938-4661.

REQUIRED COURSES  UNITS
MGMT 49 A Introduction to Management (F, SP, S) 3
MGMT 49 B Introduction to Management (F, SP) 3
MGMT 60 Management & Organizational Behavior (F, SP) 3
MGMT 80 Small Business Entrepreneurship (F, SP, S) 3
Subtotal Units 12
Select TWO (2) units from the following:
IBUS 1 Introduction to International Business (F, SP) 3
IBUS 30 International Business Management (SP) 3
MGMT 270AD Work Experience Issues (F, SP) 1
AND
Consult guides available in Counseling Centers for specific general education and required grades.
Studies, as well as providing students with a CDECE 12-unit state requirement for employment in Early Childhood Education Programs. For more departmental information call (562)938-4549 or 938-4454.

REQUIRED COURSES UNITS
**+CDECE 45 Child Development D1 (F, SP) OR 3
**+CDECE 47 Human Development D1 (F, SP) 3
**+CDECE 48 Child, Family & Community D2 (F, SP) 3
**+CDECE 66 The Preschool Child D3 (F, SP) 3
*PSYCH 1 Introduction to Psychology 3
**Complete THREE (3) units minimum in any other Child Development course. 3
Subtotal Units 15

Select ONE of the following courses:
*SOCIO 1 Introduction to Sociology 3
*ANTHR 2 Cultural Anthropology 3

Select ONE of the following courses:
**+ CDECE 61 Child in Multi-Cultural Classroom D3 (SP) 3
*HUMAN 1 Comparative World Cultures 3
*SOCIO 40 Marriage and the Family 3

Select ONE of the following:
*ANAT 41 Anatomy & Physiology 5
*†BIO 60 AND 60L Human Biology AND Lab 4:1
TOTAL UNITS 26

COMPUTER APPLICATION SPECIALIST
Career or Completion Certificate and/or Associate in Arts
This field of concentration provides a program for students interested in working with computer application software in business and industry at an entry-level in a variety of environments. The microcomputer background will be developed in operating systems, programming, word processing, spreadsheet applications, desktop publishing and telecommunications. The Concentration in Computer Business Information Systems emphasizes help-desk support aspects whereas the Concentration in Computer and Office Technologies focuses on business applications. Many of the courses are transferable to selected universities. This certificate will prepare students for an entry-level position in a variety of business settings and will serve as a foundation for specialization such as user software trainer, PC support specialist, software support specialist, help desk technician, software/hardware sales or software tester. This Associate Degree will prepare students for career advancement once a certificate has been earned. Appropriate course selection will also facilitate transfer in a related major. For more information regarding CBIS classes call (562)938-4323, CAOT classes call (562) 938-3033.

REQUIRED CORE COURSES FOR BOTH CONCENTRATIONS UNITS
•CBIS 6 Introduction to Information Systems (F,SP,S) 4
•†CAOTT 233 Keyboarding/Typing (F, SP, S) OR 1-3
CAOTT 200A-C or 200 Keyboarding/Typing 1-3
•CAOTO 15 Business Communications (F, SP) 3
Subtotal Units 8-10

In addition to the core courses the CONCENTRATION IN COMPUTER BUSINESS INFORMATION SYSTEMS (CBIS) REQUIRES THE FOLLOWING COURSES:
•CBIS 2 Software of Business (F, SP, S) 3
•CBIS 3A Disk Operating Systems (IBM) (F, SP, S) 1
•CBIS 3B Advanced Operating Systems (F, SP) 1
•CBIS 8A Computer Programming/BASIC (F,SP, S) 4
†CBIS 8B Advanced BASIC: VISUAL (SP) 4
†CBIS 38 Data Base Concepts, Access (F) 3
†CBIS 40 Advanced Microsoft Office with Visual BASIC (F, SP) 2
†CBIS 206A Navigating the Internet (F, SP, S) 1
†CBIS 206B Web Publishing w/HTML (F, SP) 1
Subtotal Units 20

Required Work Experience in the CBIS Computer Labs:
†CBIS 71AD Work Experience Comp Bus Info Sys (60 Hours) (F, SP, S) 1
†CBIS 72AD Work Experience Comp Bus Info Sys (60 Hours) (F, SP,S) 2
Subtotal Units 3
TOTAL UNITS (FOR CBIS CONCENTRATION) 31-33

In addition to the core courses the CONCENTRATION IN COMPUTER AND OFFICE TECHNOLOGIES (CAOT) REQUIRES THE FOLLOWING COURSES:
•CAOTC 31A,B Windows (Beginning, Advanced) (F, SP, S) 1:1
•CAOTC 35 Microsoft Office (F, SP) 3
•CAOTC 39B-D Microsoft Word for Office (Levels 2-4) (F, SP, S) 1:1:1
•CAOTC 41F,J Excel for Windows (Intermediate & Advanced) (F, SP, S) 1:1
•CAOTC 44E PowerPoint for Windows (Advanced) (F, SP, S) 1
•CAOTC 45 Telecommunications and the Internet 2
•CAOTC 47A Access for Office Applications (Beginning) (F, SP, S) 3
CAOTC 215A Microsoft Outlook (F, SP) 2
Subtotal Units 18

Computer and Office Technologies Concentration Electives
(Choose a minimum of 3 units):
•CAOTC 34 Introduction To Computers & Applications (F, SP) 3
•CAOTC 41E Excel for Windows (Beg.) (F, SP, S) 1
•CAOTC 42A-B Desktop Publishing–Small Business 1, 2 (F,SP,S) 1:1
•CAOTC 43A-D Desktop Publishing-Business (Levels 1-4) (F,SP) 1:1:1:1
•CAOTC 44C Business Graphics–Paint/Draw Software (F, SP) 1
CAOTC 44D PowerPoint for Windows, (Beg.) (F, SP) 1
•CAOTC 46C-E Independent Projects-Desktop Publishing, Business Graphics and/or Telecommunications 1:1:1
•CAOTC 47B Access for Office Applications (Intermediate) (F, SP) 3
Curriculum Guides

Consult guides available in Counseling Centers for specific general education and required grades.

CAOTC 220 Hand-Held Electronic Organizers (F, SP) 1
CAOTC 240A-B Word MOUS Proficient–OR Expert User Exam Preparation (F, SP) 0.5:0.5
CAOTC 241AB Excel MOUS Proficient-User Exam Preparation (F, SP) 0.5:0.5
CAOTC 242 PowerPoint MOUS Exam Prep (F, SP) 0.5
CAOTC 243 Access MOUS Core-User Exam Preparation (F, SP) 0.5
Subtotal Units 3
TOTAL UNITS (FOR CAOT CONCENTRATION) 29-31

COMPLETION CERTIFICATES

Basic Microsoft Office Certificate

REQUIRED COURSES

CAOTC 35 Microsoft Office 3

TOTAL UNITS 3

Microsoft Access Certificate

REQUIRED COURSES

CAOTC 47A Access for Office Applications, Beginning 3
CAOTC 47B Access for Office Applications, Intermediate 3

TOTAL UNITS 6

Microsoft Excel Certificate

REQUIRED COURSES

CAOTC 41E Excel for Windows-Beginning 1
CAOTC 41F Excel for Windows-Intermediate 1
CAOTC 41J Excel for Windows-Advanced 1

TOTAL UNITS 3

COMPUTER and BUSINESS INFORMATION SYSTEMS

Career or Completion Certificate and/or Associate in Arts

The CBIS Department has four Career Certificate programs and one Completion Certificate program for students interested in working in the computer industry. Track 1 is intended for those students interested in working as help desk technicians assisting end-users resolve software and hardware problems. Track 2 is intended for students interested in developing computer application software in business and industry as an entry-level computer programmer on PCs, mid-range or larger sized computers. Track 3 is intended for students interested in transferring to a four-year college or university to major in Computer Science. Track 4 is intended for students who want to know how networking is going to affect their work life, and want to understand what this technology is all about or are trying to find out if a network would help their organization. It will also prepare students for MS Windows 2000 and Novell Certification. The Completion Certificate is to prepare students for a career in Java programming on the Internet. It will also prepare students to pass the 1-Net+, Java Programmer and Java Developer Certification exams. This Career Certificate will prepare students for an entry-level position in a variety of business settings: The Associate Degree will prepare students for transfer to the four-year college or university. For more departmental information call (562)938-4332.

Track 1 - Microcomputer Help-Desk Technician: PC Support Specialist, Software Support

Track 2 - Programmer–Java, C++, Visual BASIC, RPG II, Access, Desktop Support, AS/400 programming and operations

Track 3 - Programmer–Computer Science Transfer to CSU or UC

Track 4 - Networking-System Administrator or Networking Support

Track 1 - Microcomputer Help-Desk Technician

Track 1 is intended for students interested in working exclusively with the microcomputer personal computer platforms.

REQUIRED COURSES FOR TRACK 1

<table>
<thead>
<tr>
<th>REQUIRED COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBIS 2 Help Desk Technician-Advanced MS Office (F, SP, S)</td>
<td>3</td>
</tr>
<tr>
<td>CBIS 3A Disk Operating Systems (F, SP, S)</td>
<td>1</td>
</tr>
<tr>
<td>CBIS 3B Advanced Operating Systems (F, SP)</td>
<td>1</td>
</tr>
<tr>
<td>CBIS 6 Introduction to Information Systems (F,SP,S)</td>
<td>4</td>
</tr>
<tr>
<td>CBIS 40 MS Word, Excel &amp; PowerPoint (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>CBIS 200 Introduction to IBM Compatible Computers (F, SP)</td>
<td>3.5</td>
</tr>
<tr>
<td>CBIS 41 Networking Fundamentals (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>CBIS 206A Navigating the Internet (F, SP, S)</td>
<td>1</td>
</tr>
<tr>
<td>CBIS 206B Web Design (F, SP,S)</td>
<td>1</td>
</tr>
<tr>
<td>CBIS 260 Help Desk Concepts (SP)</td>
<td>1</td>
</tr>
</tbody>
</table>

Subtotal Units 21.5

Required Work Experience in the CBIS Computer Labs - Choose a minimum of two units:

*CBIS 70AD *Work Experience Issues–Computers (F, SP, S) 1
*CBIS 71AD Work Experience-Comp Bus Info Sys (60 Hours) (F, SP, S) 1
*CBIS 72AD Work Experience-Comp Bus Info Sys (120 Hours) (F,SP) 2

Subtotal Units 2

Recommended but not required course(s):

*CBIS 36 Systems Analysis and Design (SP) 3
SP 20 Elements of Intra Personnel Communication 3

*CBIS 70AD must be taken anytime you are taking

CBIS 71AD or CBIS72AD

TOTAL UNITS FOR TRACK 1 23.5

Track 2 - Programmer

Track 2 is intended for students interested in computer programming on PCs, mid-range or larger sized computers.

REQUIRED COURSES FOR TRACK 2

<table>
<thead>
<tr>
<th>REQUIRED COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBIS 3A Disk Operating Systems (F, SP, S)</td>
<td>1</td>
</tr>
<tr>
<td>CBIS 3B Advanced Operating Systems (F, SP)</td>
<td>1</td>
</tr>
<tr>
<td>CBIS 6 Introduction to Information Systems (F,SP,S)</td>
<td>4</td>
</tr>
<tr>
<td>CBIS 7 Business Programming Logic &amp; Design (F, SP)</td>
<td>1</td>
</tr>
<tr>
<td>CBIS 36 Systems Analysis &amp; Design (SP)</td>
<td>3</td>
</tr>
<tr>
<td>CBIS 38 Database Concepts (F)</td>
<td>2</td>
</tr>
</tbody>
</table>
Curriculum Guides

†CBIS 223 Unix/Linux Fundamentals (F, SP) 3
Subtotal Units 15

Choose one series of the following:
•† CBIS 208A Visual BASIC Programming: Introduction (F, SP) 4
  AND
•† CBIS 208B Visual BASIC Programming: Advanced (F, SP) 4
  OR
†CBIS 11 Computer Programming/C++ I (F) 3
  AND
†CBIS 12 Computer Programming/C++ II (SP) 3
  OR
†CBIS 13 C++ Data Structures and Algorithms 3.5
  OR
†CBIS 14A Introduction to Java Programming (F, SP) 3.5
  AND
†CBIS 14B Java Data Structures and Algorithms (F) 3.5
  OR
†CBIS 15 Computer Programming/RPG (F, SP) 3
Subtotal Units 6-9.5

Choose one of the following alternative languages:
†CBIS 8B Visual BASIC Programming: Intro. (F, SP) 4
†CBIS 11 Computer Programming/C++ I (F) 3
†CBIS 14A Introduction to Java Programming (F, SP) 3.5
†CBIS 15 Computer Programming/RPG (F, SP) 3
Subtotal Units 3-4

TOTAL UNITS FOR TRACK 2 24-28.5

Recommended but not required course(s):
Work Experience in the CBIS Computer Labs - Choose a minimum of three units:
†CBIS 70AD Work Experience Issues–Computers (F, SP, S) 1
†CBIS 71AD Work Experience-Comp Bus Info Sys (60 Hours) (F, SP, S) 1
†CBIS 72AD Work Experience-Comp Bus Info Sys (120 Hours) (F, SP) 2
†CBIS 73AD Work Experience-Comp Bus Info Sys (180 Hours) (F, SP) 3
*CBIS 70AD must be taken anytime you are taking CBIS 71AD or CBIS 72AD

Recommended but not required course(s) for AS/400 and RPG option:
†¶ ACCTG 1A Principles of Accounting (transferable) (F, SP) 4

Track 3 - Programmer–Computer Science Transfer to CSU or UC
Track 3 is intended for students interested in programming and Computer Science Transfer to CSU or UC.

REQUIRED COURSES FOR TRACK 3 UNITS
†CBIS 3A Disk Operating Systems (F, SP, S) 1
†CBIS 3B Advanced Operating Systems (F, SP) 1
•CBIS 6 Introduction to Information Systems (F, SP, S) 4
†CBIS 7 Business Programming Logic & Design (F, SP) 1
†CBIS 36 Systems Analysis & Design (SP) 3
†CBIS 38 Database Concepts (F) 2
†CBIS 223 Unix/Linux Fundamentals (F, SP) 3
Subtotal Units 15

Choose one series of the following:
•† CBIS 208A Visual BASIC Programming: Introduction (F, SP) 4
  AND
•† CBIS 208B Visual BASIC Programming: Advanced (F, SP) 4
  OR
†CBIS 11 Computer Programming/C++ I (F) 3
  AND
†CBIS 12 Computer Programming/C++ II (SP) 3
  OR
†CBIS 13 C++ Data Structures and Algorithms 3.5
  OR
†CBIS 14A Introduction to Java Programming (F, SP) 3.5
  AND
†CBIS 14B Java Data Structures and Algorithms (F) 3.5
Subtotal Units 6-9.5

Choose one of the following alternative languages:
†CBIS 11 Computer Programming/C++ I (F) 3
†CBIS 14A Introduction to Java Programming (F, SP) 3.5
†CBIS 15 Computer Programming/RPG (F, SP) 3
Subtotal Units 3-4

TOTAL UNITS FOR TRACK 3 24-28.5

Recommended but not required course(s):
Work Experience in the CBIS Computer Labs - Choose a minimum of three units:
†CBIS 70AD Work Experience Issues–Computers (F, SP, S) 1
†CBIS 71AD Work Experience-Comp Bus Info Sys (60 Hours) (F, SP, S) 1
†CBIS 72AD Work Experience-Comp Bus Info Sys (120 Hours) (F, SP) 2
†CBIS 73AD Work Experience-Comp Bus Info Sys (180 Hours) (F, SP) 3

Recommended for transfer to CSU or UC system:
†¶ MATH 60 First Calculus Course 5
MATH 70 Second Calculus Course 5
MATH 80 Third Calculus Course 5
MATH 55A Discrete Mathematics I 5
MATH 55B Discrete Mathematics II 5
PHYS 3A Physics in Science & Engineering-Mechanics 5
PHYS 3B Physics in Science & Engineering-E & M 4
PHYS 3C Physics in Science & Engineering–Modern Physics 4

Track 4 - Networking
This area of concentration is for students who want to know how networking is going to affect their work life, and want to understand what this technology is all about or are trying to find out if a network would help their organization. It will also prepare students for CompTIA Network+, Novell CNA and/or MS Windows 2000 Certification.

REQUIRED COURSES FOR TRACK 4 UNITS
CBIS 3A Disk Operating Systems (F, SP, S) 1
CBIS 3B Advanced Operating Systems (F, SP) 1
•CBIS 6 Introduction to Information Systems (F, SP, S) 4
†CBIS 41 Networking Fundamentals (F, SP) 3
†CBIS 200 Introduction to IBM Compatible
Consult guides available in Counseling Centers for specific general education and required grades.
FDSRV 214 Professional Gourmet Cooking (F)  2
FDSRV 215 Commercial Formal Buffet (SP)  2
THRFB 18 Food Production Principles (INF)  3
THRFB 19 Food & Beverage Purchasing (INF)  3
THRFB 32 Catering for Hotel and Restaurant (INF)  3

COMPLETION CERTIFICATES

Hotel, Restaurant: Institutional Cooking 1 Certificate
REQUIRED COURSE  UNITS
FDSRV 201A Hotel, Restaurant: Institutional  Cooking 1  8
TOTAL UNITS  8

Hotel, Restaurant: Institutional Cooking 2 Certificate
REQUIRED COURSE  UNITS
FDSRV 201B Hotel, Restaurant: Institutional  Cooking 2  8
TOTAL UNITS  8

COMPLETION CERTIFICATES

Introduction to Baking Certificate
REQUIRED COURSE  UNITS
FDSRV 204 Intro to Baking (INF)  5
TOTAL UNITS  5

Baking and Pastry 1 Certificate
REQUIRED COURSE  UNITS
FDSRV 204 Introduction to Baking (INF)  5
†FDSRV 205 Baking and Pastry 1  5
TOTAL UNITS 10

Baking and Pastry 2 Certificate
REQUIRED COURSE  UNITS
FDSRV 204 Introduction to Baking (INF)  5
†FDSRV 206 Baking and Pastry 2  5
TOTAL UNITS 10

Commercial Cake Decorating Certificate
REQUIRED COURSE  UNITS
FDSRV 207 Commercial Cake Decorating  5
TOTAL UNITS  5

Food Preparation 1 Certificate
REQUIRED COURSE  UNITS
FDSRV 213A Food Preparation 1  11.5
TOTAL UNITS 11.5

Food Preparation 2 Certificate
REQUIRED COURSE  UNITS
†FDSRV 213B Food Preparation 2  11.5
TOTAL UNITS 11.5

Food Preparation 3 Certificate
REQUIRED COURSE  UNITS
†FDSRV 213C Food Preparation 3  11.5
TOTAL UNITS 11.5

Professional Gourmet Cooking Certificate
REQUIRED COURSE  UNITS
FDSRV 214 Professional Gourmet Cooking  2
TOTAL UNITS  2

Commercial Formal Buffet Certificate
REQUIRED COURSE  UNITS
FDSRV 215 Commercial Formal Buffet (SP)  2
TOTAL UNITS  2

DANCE

Associate in Arts

Students learn an appreciation of dance as an art form as well as instruction in dance technique, choreography and aesthetics. Students are also provided partial lower division preparation for transfer to a baccalaureate degree in this field. This Associate Degree will prepare students for careers in body therapies, physical therapy and teaching or dance studio operation. For more departmental information call (562)938-4563.

REQUIRED COURSES  UNITS

Semester 1
DANCE 1 Dance Forms Through the Ages (F, SP)  3
DANCE 10AB Fundamental of Ballet (1st semester) (F, SP)  1
DANCE 14AB Beginning Modern Dance (1st semester) (F, SP)  1
DANCE 20AB Beg. Dance-Jazz (1st semester) (F, SP)  1
Subtotal Units (for Semester 1)  6

Semester 2
DANCE 10AB Fundamental of Ballet (2nd semester) (F, SP)  1
DANCE 12AD Conditioning for Dance-Pilates Method (1st semester) (F, SP)  1
DANCE 14AB Modern Dance (2nd semester) (F, SP)  1
DANCE 20AB Beginning Dance-Jazz (2nd semester) (F, SP)  1
*TART 1 Acting 1-Introduction to Acting (F, SP, S)  3
Select ONE of the following courses:
DANCE 2 Introduction to Dance  1
DANCE 3AD Musical Theatre Dance  1
DANCE 5AB Beginning Tap  1
DANCE 8AD Stretch and Relaxation  1
DANCE 33AD Dance Choreography Workshop  1
Subtotal Units (for Semester 2)  8

Semester 3
†DANCE 11AB Intermediate Ballet (1st semester)  1
†DANCE 17AB Inter. Modern Dance (1st semester)  1
†DANCE 21AB Intermediate Dance-Jazz (1st semester)  1
†DANCE 31AB Solo Choreography (1st semester)  1
OR
†DANCE 41AD Dance Performance (1st semester)  2
Select ONE of the following courses:
TART 42AD Stage Lighting  2
TART 43 Costume Crafts  2
TART 47 Theatre Management (SP)  3
TART 55 Stage Makeup  2
Subtotal Units (for Semester 3)  6-8

Semester 4
†DANCE 11AB Intermediate Ballet (2nd semester) (F, SP)  1
†DANCE 17AB Intermediate Modern Dance (2nd semester) (F, SP)  1
†DANCE 21AB Intermediate Jazz (2nd semester) (F, SP)  1
†DANCE 32AD Group Choreography (2nd semester) (F)  1
OR
†DANCE 41AD Dance Performance (F, SP)  2
Select ONE of the following courses:
†DANCE 6AB Intermediate Tap (F, SP) 1
†DANCE 13AD Turns (SP) 1
†DANCE 18AD Folk and Ethnic Dance (F, SP) 1
†DANCE 60AD Special Projects in Dance (F, SP) 1
Subtotal Units (for Semester 4) 5-6
TOTAL UNITS 25-28

DATA ENTRY
Career Certificate and/or Associate in Arts

Students prepare for entry-level employment as a data-entry operator. Upon completion of the program, the student will be able to enter data accurately and rapidly as well as operate other office machines. This certificate will prepare students for an entry-level position in a variety of business settings and will serve as a foundation for specialization. This Associate Degree will prepare students for career advancement once a certificate has been earned. For more departmental information call (562)938-3033.

REQUIRED COURSES
UNITS
• CAOTC 31A Microsoft Windows Operating System (Beginning) (F, SP, S) 1
• CAOTC 47A Access for Office Applications (Beginning) (F, SP) 1
• CAOTC 250A-C Data Entry-Levels 1-3 (F, SP) 2:3:3
CAOTO 30 Business Calculating Machines (F, SP, S) 2
CAOTO 263 Customer Service (F, SP, S) 1
¶CAOTT 201 Intermediate Typing/Keyboarding (F, SP) 2
Subtotal Units 17

ELECTIVES:
Select THREE (3) units from the following courses:
• CAOTC 31B Microsoft Windows Operating System (Advanced) (F, SP, S) 1
• CAOTC 34 Introduction to Computers and Applications (F, SP) 3
• CAOTC 35 Microsoft Office (F, SP) 3
†CAOTC 39A-D Microsoft Word for Office (Levels 1-4) (F, SP, S) 1:1:1:1
¶CAOTC 41E,F, J Excel for Windows (Levels 1-3) (F, SP, S) 1:1:1
• CAOTC 47B Access for Office Applications (Intermediate) (F, SP) 3
CAOTC 215A Microsoft Outlook (F, SP) 2
CAOTC 215B Electronic Records Management 2
CAOTC 243 Access MOUS Core–User Exam Preparation (F, SP) .5
• CAOTC 246 Computer Financial Calculations (F, SP, S) 3
CAOTO 216 Proofreading (F, SP, S) 1
¶CAOTT 202 Advanced Typing/Keyboarding (F, SP) 2
CAOTT 209A Speed/Accuracy Building for Typists (F, SP) 1:1
Subtotal Units 3
TOTAL UNITS 20

COMPLETION CERTIFICATES

Consult guides available in Counseling Centers for specific general education and required grades.

Basic Data Entry Certificate

REQUIRED COURSES
UNITS
CAOTC 250A Data Entry-Level 1 2
CAOTC 250B Data Entry-Level 2 3
CAOTT 209A Speed/Accuracy Building for Typists 1
TOTAL UNITS 6

Microsoft Access Certificate

REQUIRED COURSES
UNITS
CAOTC 47A Access for Office Applications, Beginning 3
CAOTC 47B Access for Office Applications, Intermediate 3
TOTAL UNITS 6

DESKTOP PUBLISHING
Career or Completion Certificate and/or Associate in Arts

This field of concentration provides a program for students interested in learning to write, design and produce a variety of publications (flyers, brochures, newsletters, in-house magazines) on Macintosh and IBM computers. The program prepares students to work in office environments involving desktop publishing or to work on a freelance basis. For successful employment, you should be able to type 30+ words a minute, write with a proficiency equal to placement in ENGL 1 and have a basic understanding of the principles of color and design theory. This certificate will prepare students for an entry-level position in a variety of business settings and will serve as a foundation for specialization. This Associate Degree will prepare students for career advancement once a certificate has been earned. Appropriate course selection will also facilitate transfer in a related major. For more information regarding: Art classes call (562)938-4319, Computer and Office Technologies classes call (562)938-3033, Journalism classes call (562)938-4675 or 938-4365.

REQUIRED COURSES
UNITS
Microcomputer Operation (1 unit)
Choose one of the following:
• CAOTC 31A or B Microsoft Windows Operating System (Beginning & Advanced) (F, SP, S) 1
• CPAS 1B Using the Mac as a Tool for Learning (F, SP, S) 1
NOTE: Credit by exam available. Contact the department chairperson for any of the above microcomputer operation courses.

Word Processing (1 unit)
Complete one unit from any of the following:
• CAOTC 39AD Microsoft Word for Office, Levels 1-4 (F, SP, S) 1
• CPAS 1B Using the Mac as a Tool for Learning (F, SP, S) 1
NOTE: Credit by exam available. Contact the department chairperson for any of the above microcomputer operation courses.

Text Editing, Layout and Design (16 units)
†ART 44AD Computer Art for Graphic Design (F, SP) 3
†ART 55AD Introduction to Graphic Design (F) 3
+CAOTC 43A-D Desktop Publishing-Business 1,2,3,4 (F, SP) 4
•JOURN 1A Introduction to Desktop Publication (F, SP) 3
JOURN 25 Free Lance/Feature Writing (F) 3
Subtotal Units 18

CHOOSE ONE AREA OF CONCENTRATION BELOW:

Concentration in Art
Choose 6 units from the following:
*ART 31 Fundamentals of Art/Composition and Color (F, SP) 3
ART 43 Computer Art for the Internet 3
†ART 45AD Computer Art for Drawing & Painting (F, SP) 3

Concentration in Writing/Publishing
Select 6 units from the following:
JOURN 1B Intro to Desktop Publishing (F, SP) 3
JOURN 6AD Making and Editing the Magazine (SP) 3
#JOURN 20 Beginning Newswriting and Reporting (F, SP) 3
†JOURN 80AD Working on the Newspaper (F, SP) 3

Concentration in Office Technologies
Select 6 units from the following:
•CAOTC 34** Introduction to Computers and Applications (F, SP) 3
•CAOTC 35** Microsoft Office (F, SP) 3
•CAOTC 42A, B** Desktop Publishing--Small Business, Levels 1 & 2 (F, SP, S) 1:1
•CAOTC 44C** Business Graphics-Paint/Draw Software (F, SP) 1
•CAOTC 44D, E** PowerPoint for Windows, Beginning & Advanced (F, SP, S) 1:1
CAOTC 46D Independent Project--Business Graphics (F, SP) 1
CAOTC 242 PowerPoint MOUS Exam Prep (F, SP) 0.5
CAOTO 216 Proofreading (F, SP) 1

Total Units 6

Total Units 24

Completion Certificates
Adobe PageMaker Certificate

Required Courses Units
CAOTC 43A Desktop Publishing-Business 1 1
CAOTC 43B Desktop Publishing-Business 2 1
CAOTC 43C Desktop Publishing-Business 3 1
CAOTC 43D Desktop Publishing-Business 4 1

Total Units 4

Basic Desktop Publishing Certificate

Required Courses Units
CAOTC 43A Desktop Publishing-Business 1 1
CAOTC 43B Desktop Publishing-Business 2 1
CAOTC 43C Desktop Publishing-Business 3 1
CAOTC 43D Desktop Publishing-Business 4 1
CAOTC 42A Desktop Publishing-Personal 1 1
CAOTC 42B Desktop Publishing-Personal 2 1
CAOTC 44C Business Graphics-Paint/Draw 1

Total Units 7

Diagnostic Medical Imaging Sciences (Radiologic Technology)

Associate in Science/Career or Completion Certificate

The Diagnostic Medical Imaging Program at Long Beach City College is dedicated to providing high-quality education and clinical practice to qualified students. It is responsive to the diverse needs of the local medical community. It specializes in the education and training that lead to entry-level employment as a competent, ethical health care professional and an Associate of Science Degree. The program emphasizes the necessity of professional development and lifelong learning. This field of concentration is designed to prepare the student for certification by the State Department of Health Services, Radiological Health Section and Registration by the American Registry of Radiologic Technologists after testing. The end objective is to prepare students for employment as practicing Radiologic Technologists in Acute Care Hospitals, Medical Clinics and/or private offices. For any additional departmental information call (562)938-4169.

Required Courses Units

Prerequisite Courses

Required Courses Units
*ANAT 41 Anatomy & Physiology (F, SP, S) 5
AH 60 Medical Terminology (F, SP, S) 3
AH 61 Integration of Patient Care (F) 2

Total Units 10

First Year

Spring Semester
†RT 10 Introduction to Radiologic Technology 3
Subtotal Units 3

Summer Session
†RT 20 Introduction to Radiologic Physics 3
Subtotal Units 3

Fall Semester
*# General Ed. Course (see explanation in footnote) 3
*# General Ed. Course (see explanation in footnote) 3
*Computer Class Any computer class which satisfies computer proficiency for graduation. FOR UPDATED LISTING SEE GENERAL COURSE PATTERN GUIDE 1
†RT 11 Radiographic Techniques 1
†RT 12 Contrast Fluoroscopic & Radiographic Proc. 3
†RT 21 Applied Radiologic Physics 2
†RT 30 Positioning for General Radiography 3
†RT 40A Clinical Radiography & Film Critique 2.5
Subtotal Units 18.5

Spring Semester
†* RT 60 Radiologic Pathology 3
†RT 24 Radiation: Biology & Protection 3
†RT 31 Positioning for Cranial Radiography 3
†RT 40B Clinical Radiography & Film Critique 6
Consult guides available in Counseling Centers for specific general education and required grades.
F & N 224 Sanitation, Safety & Equipment (F) 3
F & N 225 Introduction Food Service & Work Organization (SP) 3
F & N 227 Supervision & Training Tech. (SP) 3
F & N 228 Food Production Management (SP) 3
F & N 230AC Clinical Field Experience I (F, SP) (2 semesters required) 2:2
F & N 231 Menu Planning & Food Purchasing (F) 3
F & N 232 Modified Diets & Diet Therapy (SP) 3

TOTAL UNITS 29

NOTE: Completion of these courses entitles student to a Dietetic Service Supervisor Career certificate, approved by the California State Department of Health Services. Dietetic Service Supervisor completers must take the Dietetic Service Supervisor competency examination.

Dietetic Technician Program

Complete the Dietetic Service Supervisor Program required courses (above 29 units) and the following courses:

†F & N 234 Advanced Nutrition Care (F) 3
†F & N 236 Dietetic Seminar (SP) 1

Subtotal Units 11
Subtotal Units(Courses from Dietetic Service Supervisor Program) 29

TOTAL UNITS 40

Complete the Dietetic Service Supervisor Program required courses (above 29 units) and the following courses:

†F & N 234 Advanced Nutrition Care (F) 3
†F & N 236 Dietetic Seminar (SP) 1
†F & N 237 Dietetic Technician Program 3
†F & N 238 Clinical Field Experience II 2:2

Subtotal Units 13

Any 300 band course in Food and Nutrition can be applied as an elective to the degree or certificate in this program.

DRAFTING - Mechanical & Design

(Occupational Program)

Career Certificate and/or Associate in Science

Students learn entry-level job skills in mechanical drafting and design. This certificate will prepare students for an entry-level position in a variety of design profession settings and will serve as a foundation for specialization. This Associate Degree will prepare students for a mechanical-design-related career, and appropriate course selection will facilitate transfer to a professional degree program. For more departmental information call (562)938-4718.

The Associate Degree requires only 18 units from the following courses identified with "†".
The Program Certificate requires 34 units as specified below.

UNITS Complete with a "B" average FIFTEEN (15) units from the following:

#†DRAFT 201 Introduction to Drafting 4
#†DRAFT 51A Industrial Drafting I 3
#†DRAFT 51B Industrial Drafting II 3
#†DRAFT 52A Advanced Industrial Drafting 3
#†DRAFT 202 AutoCAD I, Fundamentals 4
#†DRAFT 203 AutoCAD II, Advanced Concepts 4
#†ENGR 3A Engineering Graphics 3

Subtotal Units 15

Complete NINE (9) units from the following:

†MACHT 50A Machine Tool Operation and Practices 3
†MACHT 50B Machine Tool Operation and Practices 3
†MACHT 60 Geometric Dimensioning & Tolerancing 3

Subtotal Units 9

Select ONE of the following courses:

†DRAFT 52B Descriptive Geometry 3
†ENGR 3B Engineering Graphics 3

Subtotal Units 3

Select THREE (3) - FIVE (5) units from the following:

†* ELTC 225 Algebra & Trigonometry for Technicians 4
†* ELTC 226 Analytic Geometry for Technicians 4
†* ELTC 227 Trigonometry for Technicians 4
†* Phys 2A General Physics 4
†* PHYS 10 Conceptual Physics 4

Subtotal Units 4

TOTAL UNITS 34-36

EARLY CHILDHOOD EDUCATION

Associate in Arts/Career or Completion Certificate

Students prepare to work in early childhood programs. For STATE MINIMUM REQUIREMENTS (Title 22): This program satisfies the State of California licensing requirement for employment in early childhood education programs (private, church, industrial, coop). The minimum licensing requirement is that six units be completed before employment and that an additional six units be completed immediately thereafter. The required classes are CDECE 45 or 47-D1, 48-D2. Six additional D3 units to be selected from the following: CDECE 53, 54, 55, 57, 58, 59, 61, 66 or CDLL 51AD or 52AD.

For CHILD DEVELOPMENT PERMIT (formerly called Children’s Center Permit) (Title 5): The Early Childhood Certificate program, plus 16 units in general education including one course in humanities, social sciences, mathematics and/or science and English, and an experience component, satisfies the requirements for a Child Development Permit required to teach in subsidized early childhood education programs (State or
Curriculum Guides

Headstart preschool programs run by school districts. For more departmental information call (562)938-4549 or 938-4454.

REQUIRED COURSES UNITS
¶CDECE 1 Career Explorations in Child Development (F, SP) 1
¶CDECE 45 Child Development D1 (F, SP) 3
OR
CDECE 47 Human Development D1 (F, SP) 3
CDECE 48 Child, Family and Community D2 (F, SP) 3

Subtotal Units 21

Select SIX (6) units from the following options:
CDECE 19 Child Nutrition & Safety D7 2
CDECE 31 Adult Supervision 2
CDECE 40 Infant Development and Educaring D4 3
CDECE 41 Toddler Development and Educaring D4 3
¶CDECE 53 Intro. to Early Childhood Education D3 3
CDECE 56 Creative Movement for Young Children D5 2
CDECE 59 Child Behavior D3 3
†CDECE 60A Administration of Child Development Programs D6 3
†CDECE 60B Advanced Supervision of E.C.E. D6 3
¶CDECE 53 Intro. to Early Childhood Education D3 3
CDECE 56 Creative Movement for Young Children D5 2
CDECE 59 Child Behavior D3 3
CDECE 61 Child in Multi-Cultural Classroom D3 3
CDLL 51A-D The Ecology of Early Childhood-The Whole Child 2
CDLL 52A-D Preschool Child Techniques D3 2
CDSED 67 The Exceptional Child D1 3

Subtotal Units 6

Total Units 27

COMPLETION CERTIFICATES

Early Childhood Education Assistant Teacher Certificate
May assist in the instruction of children under supervision of Associate Teacher or above.

REQUIRED COURSES UNITS
¶CDECE 45 Child Development D1 (F, SP) 3
OR
CDECE 47 Human Development D1 (F, SP) 3
CDECE 48 Child, Family and Community D2 (F, SP) 3

Total Units 6

Early Childhood Education Associate Teacher Certificate
May provide instruction and supervise Assistant.

REQUIRED COURSES UNITS
¶CDECE 45 Child Development D1 (F, SP) 3
OR
CDECE 47 Human Development D1 (F, SP) 3
CDECE 48 Child, Family and Community D2 (F, SP) 3

Subtotal Units 6

Select SIX (6) units from the following options:
CDECE 54 Art for Children D3 (F, SP) 2
CDECE 55 Music for Children D3 (F, SP) 2
CDECE 56 Creative Movement for Young Children D5 (INF) 2
CDECE 57 Science in Early Childhood D3 (F, SP) 2
CDECE 58 Language Arts for Young Children D3 (F, SP) 2
CDECE 66 The Preschool Child D3 (F, SP) 3
†+CDECE 68 Early Child. Education Practicum Lecture D3 (F, SP) 2
†+CDECE 68L Early Child. Education Practicum Lab D3 (F, SP) 1

Subtotal Units 6

Total Units 27

Child Development Permit Specialization Area-Art for Children Certificate

REQUIRED COURSES UNITS
ART 9 Introduction to Art 3
ART 33A-D Exploration of Decorative Arts 1
OR
Another 1 unit art class
CDECE 54 Art for Children (F, SP) 2

Total Units 6

Child Development Permit Specialization Area-Child Health Certificate

REQUIRED COURSES UNITS
CDECE 19 Child Nutrition and Safety D7 2
Choose FOUR (4) units from the following:
PEPP 23 First Aid and Safety Education 3
HLED 2 Health Education 2 OR
HLED 3 Health Education 3

Total Units 6

Child Development Permit Specialization Area-Children with Exceptional Needs Certificate

REQUIRED COURSES UNITS
Choose SIX (6) units from the following:
CDSED 5 Disabled in School and Community (SP) 3
CDSED 67 The Exceptional Child D1 (F, SP) 3

Consult guides available in Counseling Centers for specific general education and required grades.

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## Curriculum Guides

### CDSED 70 Teaching Exceptional Students (SP) 3

**TOTAL UNITS** 6

**Child Development Permit Specialization Area**—
**Family Child Care Certificate**

**REQUIRED COURSES**  
- CDECE 70AD Work Experience Issues 1  
- CDECE 71AD or 72AD or 73AD Work Experience (not to exceed 3 units) 1:2:3  
- CDFDC 212 Family Child Care Management 3

**TOTAL UNITS** 6

**Child Development Permit Specialization Area**—
**Infant/Toddler Certificate**

**REQUIRED COURSES**  
- CDECE 40 Infant Development & Educaring D4 3  
- CDECE 41 Toddler Development & Educaring D4 3

**TOTAL UNITS** 6

**Child Development Permit Specialization Area**—
**Multicultural Certificate**

<table>
<thead>
<tr>
<th>REQUIRED COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTHR 2 Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>OR HUMAN 7 American Pluralism and Identity</td>
<td>3</td>
</tr>
<tr>
<td>CDECE 61 Children in the Multicultural Classroom</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS** 6

**Child Development Permit Specialization Area**—
**Music Certificate**

<table>
<thead>
<tr>
<th>REQUIRED COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDECE 55 Music for Children</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 31 Music Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>One additional course in music</td>
<td>1</td>
</tr>
</tbody>
</table>

**TOTAL UNITS** 6

**Child Development Permit Specialization Area**—
**School Age Certificate**

<table>
<thead>
<tr>
<th>REQUIRED COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDSA 62 Creative Expression for School Age Children (F, SP)</td>
<td>2</td>
</tr>
<tr>
<td>CDSA 63 The School Age Child (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>CDSA 65 School Age Curriculum (F, SP)</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS** 6

### ELECTRICAL TECHNOLOGY

**Career Certificate and/or Associate in Science**

Students prepare for entry-level employment in numerous electrical and electrically related trades. Upon completion of the Electrical Technology program, the student will be able to install, maintain and repair electrical equipment and systems in a safe and workmanlike manner. The California Contractor’s License requirements recognize the courses listed below as partial fulfillment of the experience requirements. For more departmental information call (562)938-4505.

<table>
<thead>
<tr>
<th>COURSES: DAY PROGRAM</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED-</td>
<td>36.5</td>
</tr>
<tr>
<td>ELECTIVES</td>
<td>3.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COURSES:NIGHT PROGRAM</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED-</td>
<td>31.5</td>
</tr>
</tbody>
</table>

### ELECTIVES 8.5

**TOTAL 40

**STUDENTS MAY FOLLOW EITHER:**

**DAY PROGRAM**

**FIRST SEMESTER**

<table>
<thead>
<tr>
<th>COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECT 200A General Industrial Electricity (F)</td>
<td>8</td>
</tr>
<tr>
<td>ELTC 250 Network Cabling Installation</td>
<td>1</td>
</tr>
</tbody>
</table>

**SECOND SEMESTER**

<table>
<thead>
<tr>
<th>COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECT 200B General Industrial Electricity (SP)</td>
<td>8</td>
</tr>
<tr>
<td>ELECT 242 Electrical Code–Grounding</td>
<td>1.5</td>
</tr>
</tbody>
</table>

**THIRD SEMESTER**

<table>
<thead>
<tr>
<th>COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECT 200C General Industrial Electricity (F)</td>
<td>8</td>
</tr>
<tr>
<td>ELECT 435A Electrical Motor Control</td>
<td>2</td>
</tr>
</tbody>
</table>

**FOURTH SEMESTER**

<table>
<thead>
<tr>
<th>COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECT 200D General Industrial Electricity (SP)</td>
<td>8</td>
</tr>
<tr>
<td>AND Complete remaining 3.5 units from electives listed after 4th Semester, Night Program.</td>
<td>3.5</td>
</tr>
</tbody>
</table>

**NIGHT PROGRAM**

**FIRST SEMESTER**

<table>
<thead>
<tr>
<th>COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECT 202 Electrical Mathematics (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>+ELECT 204 Fundamentals of D.C. Electricity, 1st. semester (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>+ELECT 210A Laboratory–Practices (F, SP)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Subtotal Units** 7

<table>
<thead>
<tr>
<th>MUST ENROLL IN ELECT 204 AND 210A CONCURRENTLY</th>
</tr>
</thead>
</table>

**SECOND SEMESTER**

<table>
<thead>
<tr>
<th>COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECT 240 Electrical Code–Residential (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>+ELECT 209 Fundamentals of Motors and Generators, 2nd semester (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>+ELECT 210B Laboratory–Practices (F, SP)</td>
<td>1</td>
</tr>
<tr>
<td>† ELECT 242 Electrical Code-Grounding (F, SP)</td>
<td>1.5</td>
</tr>
</tbody>
</table>

**Subtotal Units** 8.5

<table>
<thead>
<tr>
<th>MUST ENROLL IN ELECT 209 AND 210B CONCURRENTLY</th>
</tr>
</thead>
</table>

**THIRD SEMESTER**

<table>
<thead>
<tr>
<th>COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>†ELECT 212 Fundamentals of A.C. Electricity, 3rd semester (F)</td>
<td>3</td>
</tr>
<tr>
<td>†ELECT 245 Electrical Code-Commercial (F)</td>
<td>3</td>
</tr>
<tr>
<td>†ELECT 210C Laboratory-Practices (F)</td>
<td>1</td>
</tr>
<tr>
<td>†ELECT 435A Electric Motor Control (F)</td>
<td>2</td>
</tr>
<tr>
<td>AND 8.5 Elective units can be completed during the 3rd and 4th semesters. See Fourth Semester below for list of appropriate electives.</td>
<td></td>
</tr>
</tbody>
</table>

**Subtotal Units** 9

<table>
<thead>
<tr>
<th>MUST ENROLL IN ELECT 212 AND 210C CONCURRENTLY</th>
</tr>
</thead>
</table>

**FOURTH SEMESTER**

<table>
<thead>
<tr>
<th>COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>†ELECT 214 A.C. Principles and Practices (SP)</td>
<td>3</td>
</tr>
<tr>
<td>†ELECT 250 Electrical Code-Advanced (SP)</td>
<td>3</td>
</tr>
<tr>
<td>†ELECT 210D Laboratory (SP)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Subtotal Units** 7

<table>
<thead>
<tr>
<th>MUST ENROLL IN ELECT 214 AND 210D CONCURRENTLY</th>
</tr>
</thead>
</table>

Complete remaining 8.5 electives from courses listed below.

<table>
<thead>
<tr>
<th>Courser</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>†ELTC 41 Technical Applications of Minicomputers (INF)</td>
<td>2</td>
</tr>
<tr>
<td>ELTC 56A Robotics Technology</td>
<td>2</td>
</tr>
</tbody>
</table>

69
AND
ELTC 56LA Robotics Technology Lab  1
*ELTC 225 Algebra & Trigonometry for Technicians (F, SP)  4
ELTC 250 Network Cabling Installation  1
ELTC 251 Cisco Networking I, Introduction  3
†ELECT 224 Electrical Motors & Transformers (SP)  3
†ELECT 226 Solid State Fundamentals for Electricians (SP)  3
ELECT 271 Electrical Cost Estimating (F)  3
†ELECT 275 Electrical Pipe Bending (A) (F)  0.5
†ELECT 276 Electrical Pipe Bending (B) (SP)  0.5
†ELECT 277 Blueprint Reading for Electricians (INF)  4
ELECT 435B Electrical Motor Control (SP)  2
Subtotal Units  8.5
TOTAL UNITS  40

ELECTRONICS TECHNOLOGY
Career or Completion Certificate/Associate in Science
Students learn skills required for entry-level or higher employment in the electronics industry, depending on the individual's background in the field. Advanced course work in this program is provided for job enhancement and/or retraining requirements. The program is designed for students who wish to earn an Occupational Career Certificate and/or an Associate in Science Degree in Electronics Technology and who in addition, may wish to continue their studies pursuant to a Bachelor's Degree in Industrial Arts, Vocational Education or Industrial/Engineering Technology. For more departmental information (562)938-4505.

REQUIRED COURSES  UNITS
Complete the following 24 units:
†ELTC 51A, 51LA Electronics Technology I/Lab (F, SP)  3:1
†ELTC 51B, 51LB Electronics Technology I/Lab (F, SP)  3:1
†ELTC 52A, 52LA Electronics Technology II/Lab (F, SP)  3:1
†ELTC 52B, 52LB Electronics Technology II/ Lab (F, SP)  3:1
†ELTC 53A, 53LA Solid-State Circuits / Lab (F,SP)  3:1
†ELTC 53B, 53LB Solid-State Circuits / Lab (F,SP)  3:1
NOTE: Students with no previous electronic background should complete ELTC 51A, 51B, 52A, 52B, 53 and 53B. Students with previous training may be able to enroll in an advanced class via the qualifying examination given by the department. A maximum of 12 units from an accredited institution may be transferred for credit to meet the 24-unit requirement.
Subtotal Units (for the Career Certificate)  24
The Associate in Science degree or the Career Certificate requires a minimum of 6 units from the following Math courses:
  †* MATH 40 Trigonometry  3
  †* MATH 130 Intermediate Algebra  4

If a student has not completed the required MATH 130 and MATH 40 as stated on this guide, a mathematics course at the level of pre-calculus math or higher will be acceptable, course-wise and unit-wise. Courses that are completed should have trigonometry and algebra as a component of the course. Pre-calculus both meet this requirement; geometry and statistics do not. (ELTC 225 with ELTC 40 may be substituted. MATH 110, MATH 130 or ELECT 202 may be substituted for ELTC 40, 2 units credit. ELTC 40 may be waived if qualified for ELTC 225 by meeting prerequisites or assessment test.)

Subtotal Units  4-6
TOTAL UNITS (for the Career Certificate)  28-30

For the Associate in Science degree in addition to the certificate requirement, complete the courses in one of the specialty areas listed below:

COMMUNICATIONS ELECTRONICS
UNITS
†ELTC 54A, 54LA Digital/Telecommunications Circuits (F, SP)  3:1
†ELTC 54B, 54LB Digital/Telecommunications Circuits (F, SP)  3:1
ELTC 205A Telecommunications II Laboratory  2
TOTAL UNITS FOR SPECIALITY  10

MECHATRONICS (Electronics, Mechanical and Computer)
†ELTC 55A, 55LA Microcomputer/Introduction to Robotics (F, SP)  3:1
†ELTC 56A, 56LA Robotics (F, SP)  2:1
ELECT 435A Electric Motor Control  2
†ELECT 435B Electric Motor Control  2
TOTAL UNITS FOR SPECIALITY  11

NETWORK DESIGN
ELTC 250 Network Cabling Installation  1
ELTC 251 Cisco Networking I, Introduction  3
†ELTC 252 Cisco Networking II, Routers  3
†ELTC 253 Cisco Networking III, LAN  3
†ELTC 254 Cisco Networking IV, WAN  3
TOTAL UNITS FOR SPECIALITY  13
TOTAL UNITS (for the Associate in Science Degree)  38-43

COMPLETION CERTIFICATE
Complete the required units at Long Beach City College with a minimum grade of “CR”. Submit a completed application for the Completion Certificate in the Admissions and Records Office after completion of required units.

Communications Electronics Certificate
REQUIRED COURSE  UNITS
ELTC 54A, 54LA Digital/Telecommunications Circuits  3:1
ELTC 54B, 54LB Digital/Telecommunications Circuits  3:1
ELTC 205A Telecommunications II Lab  2
TOTAL UNITS  10

Consult guides available in Counseling Centers for specific general education and required grades.
Curriculum Guides

Mechatronics Certificate
REQUIRED COURSE UNITS
ELTC 55A, 55LA Microcomputer/Introduction to Robotics 3:1
ELTC 56A, 56LA Robotics 2:1
ELTC 435A Electric Motor Control 2
ELTC 43B Electric Motor Control 2
TOTAL UNITS 11

Network Cabling Specialist Certificate
REQUIRED COURSE UNITS
ELTC 250 Network Cabling Installation 1
TOTAL UNITS 1

Network Installation Certificate
REQUIRED COURSE UNITS
ELTC 250 Network Cabling Installation 1
ELTC 251 Cisco Networking I, Introduction 3
TOTAL UNITS 4

Network Installation and Design Certificate
REQUIRED COURSE UNITS
ELTC 250 Network Cabling Installation 1
ELTC 251 Cisco Networking I, Introduction 3
ELTC 252 Cisco Networking II, Routers 3
ELTC 253 Cisco Networking III, LAN 3
ELTC 254 Cisco Networking IV, WAN 3
TOTAL UNITS 13

ENGINEERING
Associate in Science
This field of concentration is designed to recognize partial fulfillment of the requirements for transfer with junior standing for students seeking a baccalaureate degree in engineering. This Associate Degree will facilitate transfer for a four-year engineering degree. Students who wish to transfer may need to meet additional requirements. For more departmental information call (562)938-4607.

REQUIRED COURSES UNITS
†CHEM 1A General Chemistry 5
†CHEM 1B General Chemistry 5
†ENGR 17 Electrical Engineering Circuits (INF) 3
†ENGR 17L Electrical Engineering Circuits Lab (INF) 1
†ENGR 35 Statics (INF) 3
ENGR 50 Introduction to Engineering (INF) 1
†ENGL 1 Reading and Composition 3
†ENGL 2 Introduction to Literature/Composition 3
Subtotal Units 56

Select ONE of the following:
†CBIS 12 Computer Programming/C++ 3
†ENGR 54 Computer Methods /C++ 3
Subtotal Units 3
TOTAL UNITS 59

NOTE: A student must meet all prerequisites that make one eligible for a sequence of courses. Prerequisites are evaluated in the Admissions Office.

ENGLISH

Language and Literature Creative Writing Associate in Arts
This field of concentration in the Language and Literature sequence prepares the student for baccalaureate study in English, Comparative Literature and Liberal Arts. The Creative Writing sequence also prepares the student for possible publication. For more departmental information call (562)938-4358, 938-4365 or 938-4036.

LANGUAGE & LITERATURE SEQUENCE REQUIRED COURSES UNITS
†ENGL 1 or ENGL 1H Reading and Composition (F, SP, S) 3
†ENGL 2 Introduction to Literature/Composition (F, SP, S) 3
Subtotal Units 6

Select a minimum of NINE (9) units from the following courses, of which SIX (6) units must be a year's survey sequence (English, American or World)
†ENGL 41 American Literature I (F) 3
†ENGL 42 American Literature II (SP) 3
†ENGL 44 or ENGL 44H Literature of Western World I (F) 3
†ENGL 45 or ENGL 45H Literature of Western World II (SP) 3
†ENGL 46 or ENGL 46H Survey of English Literature I (F) 3
†ENGL 47 or ENGL 47H Survey of English Literature II (SP) 3
Subtotal Units 9

Select SIX (6) units from any of the following courses:
†ENGL 3 or ENGL 3H Argumentative and Critical Writing (F, SP, S) 4
†ENGL 1 Detective and Crime Fiction (SP odd) 3
†ENGL 24 College Grammar (F, SP) 3
†ENGL 30 Horror and Terror Fiction (INF) 3
†ENGL 32 Masterpieces of Asian Literature (INF) 3
†ENGL 33 Mythology (SP) 3
†ENGL 35 Interpreting the Short Story (F even) 3
†ENGL 36 The Novel (F odd) 3
†ENGL 37 Science Fiction, Fantasy/Horror (F even) 3
†ENGL 38 Bible as Literature, Old Testament (INF) 3
†ENGL 39 Bible as Lit., Apocrypha & New Testament (INF) 3
†ENGL 43A-B Introduction to Shakespeare (F, SP) 3:3
†ENGL 48 OR ENGL 48H Modern Literature (F) 3
ENGL 72AD Shakespeare in Ashland (INF) 2.5:2.5:2.5
†ENGL 79 Literature of Diversity (F, SP) 3
Subtotal Units 6
TOTAL UNITS 21

CREATIVE WRITING SEQUENCE REQUIRED COURSES UNITS
†*ENGL 1 or ENGL 1H Reading and Composition
Consult guides available in Counseling Centers for specific general education and required grades.
ENTRY LEVEL CLASSES

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD 36B Pattern Drafting II: Pattern Manipulation (F)</td>
<td>1.5</td>
</tr>
<tr>
<td>FD 37A Pattern Draping I: Basic Sloper (SP)</td>
<td>1.5</td>
</tr>
<tr>
<td>FD 37B Pattern Draping II: Sloper Manipulations (SP)</td>
<td>1.5</td>
</tr>
<tr>
<td>FD 38A Fashion Design I (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>FD 38B Fashion Design II (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>FD 41AD Fashion Show Production (One semester) (SP)</td>
<td>2.5</td>
</tr>
<tr>
<td>FD 245AB Computer Applications in Fashion I (F, SP)</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Select ONE of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBUS 1 Introduction to International Business</td>
<td>3</td>
</tr>
<tr>
<td>MKGT 40 Salesmanship</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 80 Small Business Entrepreneur</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal Units 20.5

ADVANCED LEVEL CLASSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD 38C Fashion Design III (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>FD 39D Fashion Design IV (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>FD 39A Pattern Grading (INF)</td>
<td>1</td>
</tr>
<tr>
<td>FD 40 Advanced &amp; Production Pattern Drafting (INF)</td>
<td>1</td>
</tr>
<tr>
<td>FD 216AB Fashion Sketch Board/Portfolio Presentation (One semester) (SP)</td>
<td>2</td>
</tr>
</tbody>
</table>

Select Four (4) units from this section:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD 70AD Work Experience Issues (One semester) (F, SP)</td>
<td>1</td>
</tr>
<tr>
<td>FD 72AD OR FD 73AD Vocational Work Experience (One semester) (F, SP)</td>
<td>2-3</td>
</tr>
<tr>
<td>FACS 364 Life Management</td>
<td>1</td>
</tr>
</tbody>
</table>

Subtotal Units 14

TOTAL UNITS 54.5 55.5

RECOMMENDED but not required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1 OR 2 Art &amp; Civilization</td>
<td>3</td>
</tr>
<tr>
<td>ART 15 Beginning Drawing</td>
<td>3</td>
</tr>
<tr>
<td>FD 211AB Textile Design: Beading</td>
<td>1</td>
</tr>
<tr>
<td>FD 212AB Textile Design: Airbrush</td>
<td>1</td>
</tr>
<tr>
<td>FD 213AB Textile Design: Hand Painting</td>
<td>1</td>
</tr>
<tr>
<td>FD 231AB Fabric Crafts</td>
<td>0.5</td>
</tr>
<tr>
<td>FD 232AB Specialized Sewing Techniques: Christmas Crafts</td>
<td>0.5</td>
</tr>
<tr>
<td>FD 233AB Specialized Sewing Techniques: Lingerie Construction</td>
<td>0.5</td>
</tr>
<tr>
<td>FD 234AB Specialized Sewing Techniques: Winter Sports</td>
<td>0.5</td>
</tr>
<tr>
<td>FD 235AB Specialized Sewing Techniques: Quick Sew</td>
<td>0.5</td>
</tr>
<tr>
<td>FD 236AB Specialized Sewing Techniques: Couture Finish</td>
<td>0.5</td>
</tr>
<tr>
<td>FD 242AD Introduction to Fashion Modeling</td>
<td>2</td>
</tr>
<tr>
<td>FD 246AB Computer Pattern Design/Manipulations</td>
<td>1</td>
</tr>
<tr>
<td>FD 258AD Swimwear</td>
<td>1</td>
</tr>
<tr>
<td>TART 43AD Costume Crafts</td>
<td>2</td>
</tr>
</tbody>
</table>

COMPLETION CERTIFICATE

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD 70AD Work Experience Issues</td>
<td>1</td>
</tr>
<tr>
<td>FD 71AD, 72AD, 73AD Work Experience–Fashion Design</td>
<td>1-3</td>
</tr>
</tbody>
</table>

Select any 12 units from the courses listed below:

- COMIS 1A Using the Microcomputer
- CPAS 1B Using the MAC as a Tool for Learning
- FD 38C Fashion Design III (F, SP)
- FD 38D Fashion Design IV (F, SP)
- FD 41AD Fashion Show Production (SP)
- FD 200 Fashion Prediction/Promotion: Critical Viewing (SP)
- FD 214AB Quick Sketch Croquis Drawing
- FD 216AB Fashion Sketch Board/Portfolio Presentation (SP)
- FD 245AB Computer Applications in Fashion (F, SP)1.5
- FD 246AB Computer Pattern Design/Manipulations 1

TOTAL UNITS 14-16

°FD 70AD must be taken concurrently with FD 71AD, 72AD or 73AD.

FASHION DESIGN

ASSISTANT DESIGNER

Associate in Arts/Career Certificate Pending Chancellor's Office Approval

Students prepare for entry-level jobs in fashion design, production and manufacturing. This program also provides partial lower-division preparation for the baccalaureate degree in Fashion Design. This Career Certificate will prepare students for an entry-level position in the apparel design and manufacturing industry. This Associate Degree will prepare students for career advancement once a certificate has been earned. Field of concentration selection will also facilitate transfer in a related major. For more departmental information call (562)938-4192 or 938-4454. The Associate Degree requires only 20-21 units from the following courses identified with a (+). The Career Certificate requires 39-40 units as specified below.

Job Opportunities:

Salary will depend on ability, experience and skills. Starting salary range: $8/hour-$15/hour. Assistant Designer, Production Manager, Pattern Drafter, Quality Control, Samplemaker and Manufacturers Representative.

ENTRY LEVEL CLASSES

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMIS 1A OR CPAS 1B Using the Microcomputers (One semester)</td>
<td>1</td>
</tr>
<tr>
<td>+FD 3 Introduction to Careers in Design &amp; Merchandising (F, SP)</td>
<td>2</td>
</tr>
<tr>
<td>+FD 5 Introduction to Manufacturing for Design &amp; Merchandising (F or SP)</td>
<td>1.5</td>
</tr>
<tr>
<td>+FD 9 Clothing Selection (F)</td>
<td>3</td>
</tr>
<tr>
<td>+FD 10 Textile Fibers and Fabrics (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>FD 200 Fashion Prediction/Promotion: Critical Viewing (SP)</td>
<td>1</td>
</tr>
<tr>
<td>+FD 214AB Quick Sketch Croquis Drawing (Two semesters)</td>
<td>2:2</td>
</tr>
</tbody>
</table>

Select TWO of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>+FD 24AB Beginning Sewing (One semester) (F, SP, S)</td>
<td>1.5</td>
</tr>
<tr>
<td>+FD 25AB Intermediate Sewing (One semester) (F, SP)</td>
<td>1.5</td>
</tr>
<tr>
<td>+FD 26AB Advanced Sewing (One semester) (F)</td>
<td>2</td>
</tr>
<tr>
<td>Course Description</td>
<td>Units</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>FD 27AB Production Sewing (One semester)</td>
<td>2</td>
</tr>
<tr>
<td><strong>Subtotal Units</strong></td>
<td><strong>18.5-19.5</strong></td>
</tr>
<tr>
<td><strong>INTERMEDIATE LEVEL CLASSES</strong></td>
<td></td>
</tr>
<tr>
<td>+FD 36A Pattern Drafting I: Basic Block (F)</td>
<td>1.5</td>
</tr>
<tr>
<td>†+FD 36B Pattern Drafting II: Pattern Manipulation (F)</td>
<td>1.5</td>
</tr>
<tr>
<td>FD 37A Pattern Draping I: Basic Sloper (SP)</td>
<td>1.5</td>
</tr>
<tr>
<td>†FD 37B Pattern Draping II: Sloper Manipulations (SP)</td>
<td>1.5</td>
</tr>
<tr>
<td>†FD 38A Fashion Design I (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>FD 245AB Computer Applications in Fashion I (F, SP)</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Subtotal Units</strong></td>
<td><strong>10.5</strong></td>
</tr>
<tr>
<td><strong>ADVANCED LEVEL CLASSES</strong></td>
<td></td>
</tr>
<tr>
<td>Required Courses:</td>
<td>UNITS</td>
</tr>
<tr>
<td>†FD 38B Fashion Design II (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>†FD 38C Fashion Design III (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>Select Four (4) units from this section:</td>
<td></td>
</tr>
<tr>
<td>†FD 70AD Work Experience Issues (One semester) (F, SP)</td>
<td>1</td>
</tr>
<tr>
<td>†FD 72AD OR †FD 73AD Vocational Work Experience (One semester) (F, SP)</td>
<td>2-3</td>
</tr>
<tr>
<td>FD 216AB Fashion Sketchboard/Portfolio Presentation2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Subtotal Units</strong></td>
<td><strong>10</strong></td>
</tr>
<tr>
<td><strong>TOTAL UNITS</strong></td>
<td><strong>39-40</strong></td>
</tr>
</tbody>
</table>

**RECOMMENDED but not required courses:**
- ART 1 OR 2 Art & Civilization: 3 units
- ART 15AD Beginning Drawing: 3 units
- ART 31 Fundamentals of Art: Composition and Color: 3 units
- FD 211AB Textile Design: Beading: 1 unit
- FD 213AB Textile Design: Hand Painting: 1 unit
- FD 232AB Specialized Sewing Techniques: Christmas Crafts: 0.5 unit
- FD 233AB Specialized Sewing Techniques: Lingerie Construction: 0.5 unit
- FD 234AB Specialized Sewing Techniques: Winter Sports: 0.5 unit
- FD 235AB Specialized Sewing Techniques: Quick Sew: 0.5 unit
- FD 236AB Specialized Sewing Techniques: Couture Finish: 0.5 unit
- FD 246AB Computer Pattern Design/Manipulations: 1 unit
- FD 258AD Swimwear: 1 unit

**FASHION DESIGN PATTERNMAKER Career Certificate**

(A Pending Chancellor's Office Approval)

Students prepare for entry-level jobs in fashion design, production & manufacturing. This program also provides partial lower division preparation for the baccalaureate degree in Fashion Design. Salary will depend on ability, experience and skills. Starting salary range: $8/hour-$15/hour. Production Manager, Pattern Drafter, Pattern Grader, Quality Control and Samplers. This Career Certificate will prepare students for an entry-level position in the apparel design and manufacturing industry. The Career Certificate requires 28–28.5 units as specified below. For more departmental information call (562)938-4192 or 938-4454.

**REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMIS 1A or CPAS 1B Using the Microcomputers (One semester)</td>
<td>1</td>
</tr>
<tr>
<td>†FD 3 Introduction to Careers in Design &amp; Merchandising (F, SP)</td>
<td>2</td>
</tr>
<tr>
<td>FD 5 Introduction to Manufacturing for Design &amp; Merchandising (F, SP)</td>
<td>1.5</td>
</tr>
<tr>
<td>FD 10 Textile Fibers and Fabrics (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>FD 214AB Quick Sketch Croquis Drawing (Two semesters)</td>
<td>2</td>
</tr>
<tr>
<td><strong>Subtotal Units</strong></td>
<td><strong>11-11.5</strong></td>
</tr>
<tr>
<td><strong>INTERMEDIATE LEVEL CLASSES</strong></td>
<td></td>
</tr>
<tr>
<td>FD 36A Pattern Drafting I: Basic Block (F)</td>
<td>1.5</td>
</tr>
<tr>
<td>†FD 36B Pattern Drafting II: Pattern Manipulation (F)</td>
<td>1.5</td>
</tr>
<tr>
<td>†FD 37A Pattern Draping I: Basic Sloper (SP)</td>
<td>1.5</td>
</tr>
<tr>
<td>†FD 37B Pattern Draping II: Sloper Manipulations (SP)</td>
<td>1.5</td>
</tr>
<tr>
<td>•FD 245AB Computer Applications in Fashion I (F, SP)</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Subtotal Units</strong></td>
<td><strong>6</strong></td>
</tr>
<tr>
<td><strong>TOTAL UNITS</strong></td>
<td><strong>28-28.5</strong></td>
</tr>
</tbody>
</table>

**RECOMMENDED but not required courses:**
- ART 1 OR 2 Art & Civilization: 3 units
- ART 15AD Beginning Drawing: 3 units
- ART 38A-D Fashion Design: 3 units
- FD 211AB Textile Design: Beading: 1 unit
- FD 213AB Textile Design: Hand Painting: 1 unit
- FD 232AB Specialized Sewing Techniques: Christmas Crafts: 0.5 unit
- FD 233AB Specialized Sewing Techniques: Lingerie Construction: 0.5 unit
- FD 234AB Specialized Sewing Techniques: Winter Sports: 0.5 unit
- FD 235AB Specialized Sewing Techniques: Quick Sew: 0.5 unit
- FD 236AB Specialized Sewing Techniques: Couture Finish: 0.5 unit
- FD 246AB Computer Pattern Design/Manipulations: 1 unit

Consult guides available in Counseling Centers for specific general education and required grades.
FASHION DESIGN
SAMPLEMAKER
Career Certificate
Pending Chancellor’s Office Approval
Students prepare for entry-level jobs in fashion design, production & manufacturing. This program also provides partial lower division preparation for the baccalaureate degree in Fashion Design. This Career Certificate will prepare students for an entry-level position in the apparel design and manufacturing industry. The Career Certificate requires 21.5–23 units as specified below. For more departmental information call (562)938-4192 or 938-4454.

Job Opportunities:
Salary will depend on ability, experience and skills. Starting salary range: $8/hour-$20/hour. Samplemaker, Sample Cutter, Quality Control.

ENTRY LEVEL CLASSES
REQUIRED COURSES
UNITS
COMIS 1A or CPAS 1B Using the Microcomputer (One semester) 1
¶FD 3 Introduction to Careers in Design and Merchandising (F, SP) 2
FD 5 Introduction to Manufacturing for Design and Merchandising (F or SP) 1.5
Select TWO of the following courses:
¶FD 24AB Beginning Sewing (One semester) (F, SP, S) 1.5
FD 25AB Intermediate Sewing (One semester) (F, SP) 1.5
FD 26AB Advanced Sewing (One semester) (F) 2
Subtotal Units 7.5 - 8

INTERMEDIATE LEVEL CLASSES
FD 27AB Production Sewing (two semesters) 2:2
FD 36A Pattern Drafting I: Basic Block (F) 1.5
†FD 36B Pattern Drafting II: Pattern Manipulation (F) 1.5
†FD 70AD Work Experience Issues (One semester) (F, SP) 1
†FD 72AD or 73AD Vocational Work Experience (One semester) (F, SP) 2.3
Select FOUR (4) units from this section:
FD 29AB Tailoring 2
FD 233AB Specialized Sewing Techniques: Lingerie Construction 0.5
FD 234AB Specialized Sewing Techniques: Winter Sports 0.5
FD 235AB Specialized Sewing Techniques: Quick Sew 0.5
FD 258AD Swimwear 1
Subtotal Units 14 – 15
TOTAL UNITS 21.5 - 23

RECOMMENDED but not required courses: UNITS
ART 1 OR 2 Art & Civilization 3
ART 15AD Beginning Drawing 3
FD 10 Textile Fibers and Fabrics 3
FD 211AB Textile Design: Beading 1
FD 213AB Textile Design: Hand Painting 1
FD 214AB Quick Sketch/Croquis 1
FD 236AB Specialized Sewing Techniques: Couture Finish 0.5
•FD 245AD Computer Applications in Fashion 1.5

FASHION MERCHANDISING
Career Certificate and/or Associate in Arts
Students prepare for careers in all phases of retailing and manufacturing in the growing California Fashion Industry. This program also provides lower-division preparation for the baccalaureate degree in Fashion Merchandising. This Certificate will prepare students for an entry-level position in the apparel retailing, marketing and manufacturing industry. This Associate Degree will prepare students for career advancement once a certificate has been earned. Field of concentration selection will also facilitate transfer in a related major. The Associate Degree requires only 18.5 units from the following courses identified with a (+). For more departmental information call (562)938-4336 or 938-4454.

Job Opportunities:
Buyer, Assistant Buyer, Merchandise Manager, Fashion Coordinator, Fashion Director, Display Specialist, Advertising, Sales Promotion, Department Manager, Consumer Consultant, Store Manager, Fashion Illustrator, Area Manager plus various opportunities in Apparel Manufacturing and Textiles.

ENTRY LEVEL CLASSES
REQUIRED COURSES
UNITS
FACS 64 or 364 Life Management (F, SP) 1-3
†¶FD 3 Introduction to Careers in Design and Merchandising (F, SP) 2
†FD 5 Introduction to Manufacturing for Design and Merchandising (F, SP) 1.5
†FD 9 Clothing Selection (F) 3
†FD 20 Introduction to Fashion Merchandising 3
†FD 200 Fashion Prediction/Promotion, Critical Viewing (SP) 1
Subtotal Units 11.5 - 13.5

INTERMEDIATE LEVEL CLASSES
†FD 10 Textiles Fibers and Fabrics (F, SP) 3
†FD 22A Merchandising for a Profit I (F) 1.5
†FD 22B Merchandising for a Profit II (F) 1.5
FD 32 History of Fashion (SP) 3
Select ONE of the following:
FD 214AB Quick Sketch Croquis Drawing (One semester) 2
FD 215AB Fashion Sketching I (One semester) 2
Subtotal Units 16.5

ADVANCED LEVEL CLASSES
†FD 23 Fashion/Merchandise Buying 3
††FD 70AD Work Experience Issues (One semester) (F, SP) 1
†FD 72AD or 73AD Vocational Work Experience (One semester) (F, SP) 2.3
•FD 245AD Computer Applications in Fashion 1.5
Consult guides available in Counseling Centers for specific general education and required grades.
FIRE 242C Fire Management 2C 2
FIRE 250 Basic Fire Service Training (INF) 9
FIRE 270AB Work Experience Issues–Fire Science 1:1
FIRE 271/272 /273A Work Experience–Fire Science  1:1/2:2/3:3
FIRE 400 Special Topics in Fire Science 1
+EMT 251 & 251L Emergency Medical Tech. 4.5
Subtotal Units  9
TOTAL UNITS  24

Note: Any 200, 300 OR 400 band course in Fire Science can be applied as an elective to a degree or certificate.

FLORAL DESIGN
Associate in Arts/Career Certificate
Students prepare for employment as floral designers. The Career Certificate completer will also have the basic knowledge to become a salesperson, manager or owner of a floral shop. The certificate will help students prepare for AIFD certification. For more departmental information call (562)938-4192 or 938-4195.

ENTRY LEVEL CLASSES
REQURED COURSES  UNITS
ID 286A Introduction to Floral Design (Fall Flowers) 2
ID 286B Introduction to Floral Design (Spring Flowers) 2
ID 287AC Special Techniques in Floral Design 2:2:2
MGMT 80 Small Business Entrepreneurship  3
OR
MKTG 40 Salesmanship 3
Subtotal Units  13
Select FIVE (5) additional units from the following courses:
ART 31 Fundamentals of Art/Composition and Color 3
¶HORT 15A Basic Horticulture 2
*ID 71AD, 72AD or 73AD Vocational Work Experience (One semester) 1,2 or 3
Subtotal Units  5

ADVANCED LEVEL CLASSES
ID 288 Advanced Floral Design 2
ID 289 Applied Floral Shop Operation 3
Subtotal Units  5

REQUIRED COMPETENCY: Students must complete the Long Beach Community College computer proficiency requirement.
TOTAL UNITS  23

FOOD & BEVERAGE MANAGEMENT
(Restaurant & Catering)
Associate in Arts/Career Certificate
Students learn entry and mid-level skills in the day-to-day management of food and beverage in all types of restaurants, cafeterias, convention centers, hospitals, hotels, nightclubs, private clubs, schools, stadiums, theme parks and resorts. Students enhance their skills in food and beverage management, in areas such as: beverage services, bartender, banquet sales, operations, bussers, counter persons, dishwashers, hosts, maitre d’, menu makers, guest services, purchasing, sales and marketing, stewards, human resources, table servers and wine stewards. With additional courses identified on a transfer curriculum guide for food and beverage management, students can prepare for a baccalaureate degree in this field. This certificate will prepare students for an entry-level position in a wide range of hospitality, restaurant and catering career opportunities. For information regarding hotel management programs, please refer to separate Hotel Management curriculum guide. For departmental information call (562)938-4325 or 938-4332.

REQUIRED COURSES  UNITS
FDSRV 20 Food Service Sanitation in Management (F, SP)  3
THRFB 17 Introduction to Food and Beverage Operations (INF) 3
THRFB 18 Introduction to Culinary Preparation (INF) 3
*THRFB 19 Food and Beverage Purchasing, Planning and Control (INF) 3
*THRFB 27 Bar and Beverage Management (INF) 3
THRH 24 Hospitality Accounting (INF) 3
THRH 25 Hospitality Law (INF) 3
THRH 26 Hospitality Supervision (INF) 3
THRH 30 Hospitality Sales and Marketing (INF) 3
THRH 39 Hospitality Industry Computer Systems (INF) 3
º†THRH 270AD Work Experience Issues (F, SP) 1
F & N 250 Nutrition for Culinary Arts 2
Complete a minimum of THREE (3) units from the following:
º†THRH 271AD Work Experience (F, SP) 1
º†THRH 272AD Work Experience (F, SP) 2
º†THRH 273AD Work Experience (F, SP) 3
Subtotal Units  36

IN ADDITION students majoring in Catering Management are required to take the following:
◊THRFB 32 Introduction to Catering Management (INF) 3
TOTAL UNITS 36-39

◊NOTE: This class is Required for Catering Management option and Recommended for Restaurant Management option.

RECOMMENDED but not required courses:
•CBIS 2 Help Desk Technician-Advanced MS Office (F, SP) 3
•CBIS 40 Microsoft Word, Excel, & PowerPoint (F, SP, S) 3
THRFB 32 Introduction to Catering Management (INF) 3
THRH 28 Convention Management and Meeting Planning (INF) 3
THRH 29 Facilities Management (INF) 3
THRH 33 Housekeeping and Security Management (INF) 3
MGMT 80 Small Business Entrepreneurship (F, SP, S) 3
SP 10 Elements of Public Speaking (F, SP, S) 3
SP 25 Elements of Intercultural Communications (F, SP, S) 3
THRT 210 Introduction to Travel/Tourism (F, SP) 3
FOREIGN LANGUAGES
Associate in Arts/Career Certificate
Program has two emphases: Foreign Languages-Profi-
ciency emphasis with options in French, German and
Spanish at intermediate or advanced level. Foreign Lan-
guage-Regional emphasis with options in European,
Spanish American and Pacific Rim. Students following
the Proficiency Emphasis develop a competency in at
least one foreign language, providing an important entry-
level skill for those aspiring to work in the international
arena as well as preparing for baccalaureate work.
Students following any of the Culture Emphasis
(European, Spanish American or Pacific Rim) develop
entry-level skills for work in the international arena,
including the airline industry, international business,
travel/tourism, communications, government and hotel/
restaurant management. The Language Certificate
(offerred only in French, German and Spanish) verifies
for a potential employer that the student can communi-
cate (verbally and in writing) in a wide range of situa-
tions, for a variety of purposes at a designated level for
effective communication in a business or related profes-
sional setting. This Associate Degree provides the same
or greater level of competency as the certificate. The
degree also offers an added dimension of cultural know-
ledge and understanding in region(s) where the language
is spoken. The degree would benefit those wishing to
enter a variety of industries or business settings that
compete in an international market, as well as preparing
for transfer to a four-year university in a foreign
language program. For more departmental information
call (562) 938-4331.

PROFICIENCY EMPHASIS
With Options in French, German, and Spanish
at the Intermediate or Advanced Level
For students who are studying French, German or
Spanish and who want to achieve a level of competency
for baccalaureate work, and/or to combine their foreign
languages with another skill.
Select 20 units from ¶French, ¶German or ¶Spanish
courses listed below with a minimum of 15 units in
ONE language:
REQUIRED COURSES UNITS
¶Elementary Language 1 (or 1A + 1B), 2 (or 2A + 2B)
(F, SP, S) 5:5
¶Intermediate Language 3, 4 (F, SP, S) or Span 9, 10
(F, SP, S) 5:5
¶Advanced Language 25AD (French, German or
Spanish) (F, SP) or
Two semesters (4 units maximum) of Spoken French,
German or Spanish (8AD) (F, SP) 2:2
TOTAL UNITS 20

CULTURE EMPHASSES
With Options in European, Spanish American and
Pacific Rim
REQUIRED COURSES UNITS
¶Elementary Language 1 (or 1A + 1B), 2 (or 2A + 2B)
(F, SP, S) 5:5
¶Intermediate Language 3, 4 (F, SP, S) or Span 9, 10
(F, SP, S) 5:5
¶Advanced Language 25AD (French, German or
Spanish) (F, SP) 3:3:3:3
Two semesters (4 units maximum) of Spoken French,
German or Spanish (8AD) (F, SP) 2:2
TOTAL UNITS 20

FOREIGN LANGUAGE/EUROPEAN AREA
CULTURE
REQUIRED COURSES UNITS
Select 20 units from French, German or Spanish
courses listed below with at least 15 units in ONE
language.
¶Elementary Language 1 (or 1A + 1B), 2 (or 2A + 2B)
(F, SP, S) 5:5
¶Intermediate Language 3, 4 (F, SP, S) 5:5
¶Advanced Language 25AD (French, German or
Spanish) (F, SP) 3:3:3:3
Two semesters (4 units maximum) of Spoken French,
German or Spanish (8AD) (F, SP) 2:2
Subtotal Units 20
Select SIX (6) units from:
IBUS 1 Introduction to International Business 3
THRH 16 Introduction to Hotel Management 3
THRT 210 Introduction to Travel & Tourism 3
IBUS 52 International Marketing 3
Subtotal Units 6
TOTAL UNITS 29
In addition, students must pass a competency examina-
tion in French, German or Spanish, administered by the
Foreign Language Department, including an oral profi-
ciency part, additionally focusing on specialized areas,
such as international business and tourism. The level of
proficiency expected for the competency examination
equals the intermediate mid to high level according to
the guidelines established by the American Council of
Teachers of Foreign Languages.

FOREIGN LANGUAGE/SPANISH AMERICAN
CULTURE
REQUIRED COURSES UNITS
Select 20 units from Spanish courses listed below.
¶Elementary Language 1 (or 1A + 1B), 2 (or 2A + 2B)
(F, SP, S) 5:5
¶Intermediate Language 3, 4 (F, SP, S), 9, 10
(F, SP, S) 5:5
Advanced Spanish (25AD) (F, SP) 3:3:3:3
Two semesters (4 units maximum) of Spoken Spanish
(8AD) (F, SP) 2:2
Subtotal Units 20
Select SIX (6) units from:
IBUS 1 Introduction to International Business 3
THRH 16 Introduction to Hotel Management 3
THRT 210 Introduction to Travel & Tourism 3
IBUS 52 International Marketing 3
Subtotal Units 6
Select THREE (3) units from:
FRSTU 11AB Language and Cultures of Western
Europe 3

Consult guides available in Counseling Centers for specific general education and required
grades.
In addition, students must pass a competency examination in Spanish, administered by the Foreign Language Department, including an oral proficiency part, additionally focusing on specialized areas, such as international business and tourism. The level of proficiency expected for the competency examination equals the intermediate mid to advanced level according to the guidelines established by the American Council of Teachers of Foreign Languages.

**FOREIGN LANGUAGE/PACIFIC RIM CULTURE REQUIRED COURSES**

<table>
<thead>
<tr>
<th>REQUIRED COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 8AB History of the Americas</td>
<td>3:3</td>
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<tr>
<td>Subtotal Units</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL UNITS</strong></td>
<td>29</td>
</tr>
</tbody>
</table>

In addition, students must pass a competency examination in Chinese or Japanese courses listed below:

<table>
<thead>
<tr>
<th>REQUIRED COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>§Elementary Japanese 1 (or 1A + 1B), 2 or (2A + 2B) (F, SP, S)</td>
<td>5:5</td>
</tr>
<tr>
<td>§Elementary Chinese 1 (or 1A + 1B), 2 or (2A + 2B) (F, SP, S)</td>
<td>5:5</td>
</tr>
<tr>
<td>Subtotal Units</td>
<td>10</td>
</tr>
</tbody>
</table>

In addition, students must pass a competency examination in Chinese or Japanese, administered by the Foreign Language Department, including an oral proficiency part, additionally focusing on specialized areas, such as international business and tourism. The level of proficiency expected for the competency examination equals the intermediate low level according to the guidelines established by the American Council of Teachers of Foreign Languages.

**HORTICULTURE**

Associate in Science/Career Certificate

This field of concentration is designed to furnish students with knowledge of the entry-level skills necessary to embark upon a career in the horticulture industry. It includes emphasis on practical applications leading to career advancement. Also, it provides a partial lower division preparation for transfer to a baccalaureate degree program in this field. This certificate will prepare students for an entry-level position in a variety of horticulture/landscape/nursery industry positions and will serve as a foundation for specialization. This Associate Degree will prepare students for career advancement once a certificate has been earned. Appropriate course selection will also facilitate transfer in a related major. For more departmental information call (562)938-3092.

<table>
<thead>
<tr>
<th>REQUIRED COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 11A-D Plant Identification (F, SP)</td>
<td>3:3:3:3</td>
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<tr>
<td>§HORT 15A OR 15B Basic Horticulture (F, SP)</td>
<td>2</td>
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<tr>
<td><strong>Subtotal Units</strong></td>
<td>14</td>
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</table>

Select SIX (6) units from the following courses:

<table>
<thead>
<tr>
<th>REQUIRED COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>‡HORT 270AD Work Experience Issues (F, SP)</td>
<td>1:1:1:1</td>
</tr>
<tr>
<td>‡HORT 271AD Work Experience-Horticulture (F, SP)</td>
<td>1:1:1:1</td>
</tr>
<tr>
<td>‡HORT 272AD Work Experience-Horticulture (F, SP)</td>
<td>2:2:2:2</td>
</tr>
<tr>
<td>‡HORT 273AD Work Experience-Horticulture (F, SP)</td>
<td>3:3:3:3</td>
</tr>
<tr>
<td><strong>Subtotal Units</strong></td>
<td>6</td>
</tr>
</tbody>
</table>

Select TWENTY (20) units from the following courses:

<table>
<thead>
<tr>
<th>REQUIRED COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 5 Plant Biology (F, SP)</td>
<td>4</td>
</tr>
<tr>
<td>BIO 18 Edible, Poisonous &amp; Useful Plants (INF)</td>
<td>2</td>
</tr>
<tr>
<td>COMIS 1A or 1B Using the IBM OR Macintosh Microcomputer</td>
<td>1</td>
</tr>
<tr>
<td>HORT 10AB Greenehouse Operation/Mgmt SP)</td>
<td>4:4</td>
</tr>
<tr>
<td><em>HORT 15A or 15B Basic Horticulture</em> (F, SP)</td>
<td>*2</td>
</tr>
<tr>
<td>HORT 19AB Turf Management (SP)</td>
<td>4:4</td>
</tr>
<tr>
<td>HORT 21 Principles of Landscape Design (INF)</td>
<td>3</td>
</tr>
<tr>
<td>HORT 26AB Plant Propagation (F)</td>
<td>3:3</td>
</tr>
<tr>
<td>HORT 28AB Horticulture Equipment Operation (F)</td>
<td>3:3</td>
</tr>
<tr>
<td>HORT 30 Integrated Pest Management (INF)</td>
<td>3</td>
</tr>
<tr>
<td>HORT 202AB Principles of Pruning (F)</td>
<td>4:4</td>
</tr>
<tr>
<td>HORT 223AD Landscape Construction (F, SP)</td>
<td>4:4:4:4</td>
</tr>
<tr>
<td>HORT 227AB Interior Design/Installation &amp; Maintenance (INF)</td>
<td>1.5:1.5</td>
</tr>
<tr>
<td>HORT 430A-B Landscape Maintenance</td>
<td>4</td>
</tr>
<tr>
<td>ID 286A-B Introduction to Floral Design (F, SP)</td>
<td>2:2</td>
</tr>
<tr>
<td>MGMT 80 Small Business Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 1A Elementary Spanish</td>
<td>3</td>
</tr>
<tr>
<td><strong>Subtotal Units</strong></td>
<td>20</td>
</tr>
</tbody>
</table>

**HOTEL MANAGEMENT**

Associate in Arts/Career Certificate

Students learn entry and mid-level skills in the day-to-day management of all types of hotels, convention centers, cruise lines, theme parks and resorts. Students enhance their skills in hotel management, in areas such as controller, housekeeping, auditor, banquet sales, bell hops, concierge, sales and marketing, purchasing, conference sales, front office, guest services, mail and telephone, PBX, reservations, human resources and operations. With additional courses identified on a transfer curriculum guide for Hotel Management, students can prepare for a baccalaureate degree in this field. This certificate will prepare students for an entry-level position in a wide range of hospitality career opportunities. For information regarding restaurant/catering, programs please refer to separate Restaurant/Catering Management curriculum guide. For departmental information call (562)938-4325 or 938-4332.

<table>
<thead>
<tr>
<th>REQUIRED COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>‡THRHB 16 Intro. to Hospitality Management (INF)</td>
<td>3</td>
</tr>
<tr>
<td>THRFB 18 Introduction to Culinary Preparation (INF)</td>
<td>3</td>
</tr>
</tbody>
</table>
Consult guides available in Counseling Centers for specific general education and required grades.
REQUIRED COURSES  UNITS
ARCHT 360M1 Basic AutoCAD for Architecture  1.5
ARCHT 360M2 Architectural Design – AutoCAD  1.5
ID 1 Fundamentals of Interior Design  3
ID 5 Interior Design Studio 1  2
ID 10 Beginning Drafting  3
ID 20 Interior Design Careers  2
ID 30 Applied Color & Design Theory  4
ID 50 Interior Materials/Products  4
ID 70 Space Planning  3
MKTG 40 Salesmanship  3

TOTAL UNITS (For Associate of Arts degree)  27

For the PROGRAM CERTIFICATE in INTERIOR DESIGN, complete the above 27 units, the computer course COMIS 1A or CPAS 1B, and select 19-21 units from the following courses to total 47-49 units

•COMIS 1A or •CPAS 1B Using the IBM Microcomputer or Using the MacIntosh  1

Subtotal Units  1

REQUIRED COURSES
†ARCHT 61 Architectural Design  4
FACS 364 Life Management  1
ID 70AD Work Experience Issues  1
ID 71AD, 72AD or 73AD Work Experience  1, 2 or 3
ID 80 History of Interior & Furnishings 1  3
ID 90 History of Interior & Furnishings 2  3
ID 210 Fundamentals of Lighting  3
ID 230 Business & Professional Practices  3

Subtotal Units  19-21

TOTAL UNITS for Program Certificate  47-49

Recommended but not required:
ID 76 History of American Material Culture  2
†‡ID270A-B Exploring Interior Design (one semester)  2:2
ID 272 Decorating the Home  1

INTERIOR DESIGN:  Technical Skills Emphasis
Associate in Arts/Career Certificate

Students prepare for employment in the Home Furnishings Industry in the areas of drafting and computer aided design. For more departmental information call (562) 938-4454 or 938-4180.

REQUIRED COURSES  UNITS
†ARCHT 61 Architectural Design  4
ARCHT 360M1 Basic AutoCAD for Architecture  1.5
ARCHT 360M2 Architectural Design–AutoCAD  1.5
ID 1 Fundamentals of Interior Design  3
ID 5 Interior Design Studio 1  2
ID 10 Beginning Drafting  3
ID 20 Interior Design Careers  2
ID 70 Beginning Space Planning  3
ID 210 Fundamentals of Lighting  3
COMIS 1B Using the Macintosh Microcomputer  1
FACS 364 Life Management  1

TOTAL UNITS  25

REGIONAL INTERIOR DESIGN PROGRAM

Long Beach City College has formed a partnership with four other community colleges to create a Regional Interior Design Program with a shared curriculum. Students have the opportunity to take classes on any of the five campuses and receive credit toward their certificate or degree. The participating colleges are LBCC, Orange Coast College, Saddleback College, Mt. San Antonio College and Fullerton College.

JOURNALISM

Newspaper/Magazine, Public Relations and Publication Specialist
Associate in Arts/Career Certificate

This field of concentration, with an emphasis in NEWSPAPERS/MAGAZINES, provides a basic program for students interested in careers requiring journalistic training, such as newspaper or Internet reporting, magazine or freelance writing. The emphasis in PUBLIC RELATIONS provides a basic program for students interested in careers in any aspect of public relations and in writing and editing in-house or Internet publications. The PUBLICATION SPECIALIST emphasis provides a basic program for students interested in learning to produce a variety of publications including newsletters, brochures, websites, proposals and house magazines. The Career Certificate provides access to entry level employment in a variety of journalism related fields. These include newspapers, magazines, websites, newsletters and press relation offices. For more departmental information call (562)938-4282.

DEGREE PROGRAM

Newspaper/Magazine; Public Relations; Publications

REQUIRED COURSES  UNITS
NEWSPAPER/MAGAZINE EMPHASIS
JOURN 10 Introduction to Mass Communication (F, SP)  3
†¶JOURN 20 Beginning Newswriting & Reporting (F, SP) #  3
JOURN 25 Free Lance/Feature Writing (F)  3
JOURN 35AD Photojournalism (1st semester) (F)  3
JOURN 80AD Working on the Newspaper (1st and 2nd semester) (F, SP, S)  3:3
Subtotal Units  18

Select THREE (3) units from the following:
•JOURN 1A Introduction to Desktop Publication (F, SP)  3
JOURN 6AB Making and Editing the Magazine (SP)  3

TOTAL UNITS  21

RECOMMENDED but not required courses:
•JOURN 1B Introduction to Desktop Publishing (2nd semester) (F, SP)  3
JOURN 5 Introduction to Public Relations (F)  3
JOURN 35AD Photojournalism (2nd semester) (F)  3
JOURN 70-73AD Work Experience/Work Experience Issues (F, SP)  2-4
JOURN 80AD Working on the Newspaper (3rd and 4th semester) (F, SP, S)  3:3
JOURN 85AD Editor Training (1st and 2nd semester) (F, SP, S)  3:3

PUBLIC RELATIONS EMPHASIS
•JOURN 1A Introduction to Desktop Publication (F, SP)  3
### JOURN 5 Introduction to Public Relations (F, SP) 3
### JOURN 10 Introduction to Mass Communications (F, SP) 3
### †‡ JOURN 20 Beginning Newswriting & Reporting (F, SP) # 3
### JOURN 35 AD Photojournalism (1st semester) (F) 3
### JOURN 80 AD Working on the Newspaper (1st semester) (F, SP, S) 3

**TOTAL UNITS:** 18

**RECOMMENDED but not required courses:**

- **UNITS**
  - JOURN 25 Free Lance/Feature Writing (F) 3
  - JOURN 35 AD Photojournalism (2nd semester) (F) 3
  - JOURN 80 AD Working on the Newspaper (2nd, 3rd and 4th semester) (F, SP, S) 3:3:3
  - JOURN 85 AD Editor Training (1st and 2nd semester) (F, SP, S) 3
  - JOURN 70-73 AD Work Experience/Work Experience Issues (F, SP) 2-4
  - SP 10 Elements of Public Speaking 3
  - SP 60 Elements of Argumentation & Debate 3
  - MKTG 40 Salesmanship 3
  - MKTG 47 Essentials of Marketing 3

**PUBLICATION SPECIALIST EMPHASIS**

- **UNITS**
  - JOURN 1A Introduction to Desktop Publication (F, SP) 3
  - JOURN 6AB Making and Editing the Magazine (SP) 3
  - †‡ JOURN 20 Beginning Newswriting & Reporting (F, SP) # 3
  - JOURN 25 Free Lance/Feature Writing (F) 3
  - JOURN 35 AD Photojournalism (1st semester) (F) 3
  - JOURN 80 AD Working on the Newspaper (1st and 2nd semester) (F, SP, S) 3:3

**TOTAL UNITS:** 21

### CERTIFICATE PROGRAM

**Print, Public Relations, Publications**

#### REQUIRED COURSES

- **UNITS**
  - JOURN 10 Introduction to Mass Communication (F, SP) 3
  - †‡ JOURN 20 Beginning Newswriting & Reporting (F, SP) # 3
  - JOURN 25 Free Lance/Feature Writing (F) 3
  - JOURN 35 AD Photojournalism (1st semester) (F) 3
  - JOURN 80 AD Working on the Newspaper (1st and 2nd semester) (F, SP, S) 3:3

**TOTAL UNITS:** 20-22

**RECOMMENDED but not required courses:**

- **UNITS**
  - JOURN 1AB Introduction to Desktop Publishing (2nd semester) (F, SP) 3
  - JOURN 5 Introduction to Public Relations (F) 3
  - JOURN 6AB Making and Editing the Magazine (SP) 3

**LEGAL SECRETARY**

**Career or Completion Certificate and/or Associate in Arts**

This field of concentration is designed to prepare the student for an entry-level Legal Secretary position. This certificate will prepare students for an entry-level position in a variety of business settings and will serve as a foundation for specialization. This Associate Degree will prepare students for career advancement once a certificate has been earned. For more departmental information call (562)938-3033.

#### REQUIRED COURSES

- **UNITS**
  - CAOTC 31A Microsoft Windows Operating System (Beg.) (F, SP, S) 1
  - #CAOTC 45 Telecommunications and the Internet (F, SP, S) 2
  - CAOTC 214A,B Filing A and Filing B (F, SP, S) 1:1
  - CAOTC 216 Proofreading Skills (F, SP) 1
  - CAOTC 223 Legal Procedures Litigation (SP) 3
  - CAOTC 224 Legal Procedures (F) 3
  - CAOTC 260 Business Telephone Procedures (F, SP, S) 1
  - CAOTC 261 Business English (F, SP, S) 3
  - †#CAOTT 201 Intermediate Typing/Keyboarding (F, SP) 2

**Subtotal Units:** 20

**Select FOUR (4) units from one of the following groups:**

- **UNITS**
  - CAOTC 39A-D Microsoft Word for Office, Levels 1-4 (F, SP, S) 1:1:1:1
  - CAOTC 236A-D Word Processing–WordPerfect, Levels 1-4 (F, SP, S) 1:1:1:1

**Subtotal Units:** 4

#### REQUIRED COMPETENCY:

Students must earn Typewriting Certificate with a minimum typewriting speed of 50 wpm with no more than 5 errors on a 5-minute test by the end of the program.

- **UNITS**
  - #CAOTC 31B Microsoft Windows Operating System (Advanced) (F, SP, S) 1
  - #CAOTC 39A-D Microsoft Word for Office, Levels 1-4 (F, SP, S) 1:1:1:1
  - CAOTC 41E,F,J Excel for Windows (Levels 1-3) (F, SP, S) 1:1:1
  - CAOTC 42A-B Desktop Publishing-Small Business (Levels 1 & 2) (F, SP, S) 1
  - CAOTC 43A-D Desktop Publishing-Business 1-4 (F, SP) 1:1
  - #CAOTC 47A-B Access for Office Applications (Beginning, Intermediate) (F, SP, S) 3:3
  - CAOTC 215A Microsoft Outlook (F, SP) 2
  - #CAOTC 236A-D Word Processing–WordPerfect, Levels 1-4 (F, SP, S) 1:1:1:1
  - CAOTO 15 Business Communications (F, SP) 3
  - CAOTO 222 Employment Testing and Interviewing (F, SP) 3
  - CAOTO 262 Professional Development for the Office (F, SP) 1
  - CAOTT 209AB Speed/Accuracy Building for Typists (F, SP) 1:1

**Subtotal Units:** 1

**Select THREE (3) units from the following:**

- **Units**
  - Consult guides available in Counseling Centers for specific general education and required grades.
### Curriculum Guides

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAOTC 34</td>
<td>Introduction to Computers and Applications (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>CAOTC 35</td>
<td>Microsoft Office (F, SP)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal Units:** 3

**TOTAL UNITS:** 28

### COMPLETION CERTIFICATES

#### Basic Legal Office Procedures Certificate

**REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAOTO 223</td>
<td>Legal Procedures-Litigation</td>
<td>3</td>
</tr>
<tr>
<td>CAOTO 224</td>
<td>Legal Procedures</td>
<td>3</td>
</tr>
<tr>
<td>CAOTC 39A</td>
<td>Word Processing-WordPerfect, Beginning</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 39B</td>
<td>Word Processing-WordPerfect, Intermediate</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 265</td>
<td>Computer Transcription</td>
<td>2</td>
</tr>
</tbody>
</table>

**TOTAL UNITS:** 10

#### Basic Office Skills Certificate

**REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAOTC 39A</td>
<td>Microsoft Word for the Office, Beg.</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 45</td>
<td>Telecommunications and the Internet</td>
<td>2</td>
</tr>
<tr>
<td>CAOTC 214A</td>
<td>Filing</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 260</td>
<td>Business Telephone Procedures</td>
<td>1</td>
</tr>
<tr>
<td>AND EITHER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAOTT 200A</td>
<td>Beginning Typing/Keyboarding</td>
<td>1</td>
</tr>
<tr>
<td>CAOTT 200B</td>
<td>Beginning Typing/Keyboarding B</td>
<td>1</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAOTT 200</td>
<td>Beginning Typing/Keyboarding</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS:** 7-8

#### COREL WordPerfect Certificate

**REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAOTC 236A</td>
<td>Word Processing-WordPerfect, Beginning</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 236B</td>
<td>Word Processing-WordPerfect, Intermediate</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 236C</td>
<td>Word Processing-WordPerfect, Advanced</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 236D</td>
<td>Word Processing, WordPerfect, Expert</td>
<td>1</td>
</tr>
</tbody>
</table>

**TOTAL UNITS:** 4

#### Microsoft Word Certificate

**REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAOTC 39A</td>
<td>Microsoft Word for the Office, Beg.</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 39B</td>
<td>Microsoft Word for the Office, Intermediate</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 39C</td>
<td>Microsoft Word for the Office, Advanced</td>
<td>1</td>
</tr>
<tr>
<td>CAOTC 39D</td>
<td>Microsoft Word for the Office, Expert</td>
<td>1</td>
</tr>
</tbody>
</table>

**TOTAL UNITS:** 4

### LIBERAL ARTS

This field of concentration provides a broad general education to students. It also partially fulfills the general education-breadth patterns for CSU, UC or private universities if attention is given to their specific requirements. This program similarly prepares students pursuing the Liberal Studies baccalaureate degree and the Multiple Subjects Teaching Credential.

**REQUIRED COURSES**

Complete EIGHTEEN (18) units as specified below:

1. ONE course selected from either the ENGLISH COMPOSITION or the COMMUNICATION & ANALYTICAL THINKING section of the Associate Degree Graduation Requirements. This is IN ADDITION to the courses used to meet the general education requirement.

2. ONE course selected from the NATURAL SCIENCES section of the Associate Degree Graduation Requirements. This is IN ADDITION to the course used to meet the general education requirement.

3. ONE course selected from the HUMANITIES section of the Associate Degree Graduation Requirements. This is IN ADDITION to the course used to meet the general education requirement.

4. ONE course selected from the SOCIAL SCIENCE section of the Associate Degree Graduation Requirements. This is IN ADDITION to the course used to meet the general education requirement.

5. At least two courses (minimum of 6 units total) from the above areas and/or the proficiency requirement areas (all units may be from the same area). These are IN ADDITION to the courses used to meet general education requirements.

**TOTAL UNITS:** 18

*One (1) unit courses not permitted.*

### MACHINE OPERATOR MANUFACTURING TECHNOLOGY

**Career Certificate and/or Associate in Science**

Students prepare for entry-level positions as machine operators in the aerospace or comparable manufacturing industry. Machine operators plan the sequence of machining and layout operations. They use sketches, drawings and sample parts to produce required parts. Level 1 meets the competencies set forth by the Southern California Aerospace Industry Education Council. Level 1 competencies are required for Level 2 classes. For more departmental information call (562)938-3073 or 938-3054.

**LEVEL 1 - REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACHT 50A</td>
<td>Machine Tool Operation and Practices</td>
<td>3</td>
</tr>
<tr>
<td>† MACHT 50B</td>
<td>Machine Tool Operation and Practices</td>
<td>3</td>
</tr>
<tr>
<td>† COMIS 1A</td>
<td>Using the IBM</td>
<td>1</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>† CPAS 1B</td>
<td>Using the MAC as a Tool for Learning</td>
<td>1</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>† DRAFT 203AD</td>
<td>Mechanical Drawing</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>† DRAFT 51A</td>
<td>Industrial Drafting</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELTC 225</td>
<td>Algebra &amp; Trigonometry for Technicians</td>
<td>3:4</td>
</tr>
</tbody>
</table>

A more advanced or transferable math course. (Trigonometry is recommended.)

**Complete one (1) unit from the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 453AD</td>
<td>Welding (Acetylene Gas)</td>
<td>1:1:1:1</td>
</tr>
</tbody>
</table>

**Subtotal Units:** 14-15

**LEVEL 2 - REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>† MACHT 202</td>
<td>Machine Shop</td>
<td>2</td>
</tr>
<tr>
<td>† MACHT 203</td>
<td>Machine Shop</td>
<td>3</td>
</tr>
</tbody>
</table>
Consult guides available in Counseling Centers for specific general education and required grades.
ical and electrical equipment related to any heavy industry (i.e. transportation, shipping and rail or refinery industry.) For more departmental information call (562) 938-3053 or 938-3055.

**REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIESEL 293AD General Engine</td>
<td>4</td>
</tr>
<tr>
<td>DIESEL 391A Hydraulics</td>
<td>3</td>
</tr>
<tr>
<td>DIESEL 492 Air &amp; Hydraulics Brakes</td>
<td>3</td>
</tr>
<tr>
<td>ELECT 202 Electrical Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>*ELECT 204° Fundamentals of DC Electricity</td>
<td>3</td>
</tr>
<tr>
<td>*ELECT 310A° Laboratory Practices (DC)</td>
<td>1</td>
</tr>
<tr>
<td>° Must enroll in ELECT 204 and ELECT 310A concurrently.</td>
<td></td>
</tr>
<tr>
<td>*ELECT 209° Fundamentals of Motors/Generators</td>
<td>3</td>
</tr>
<tr>
<td>° Must enroll in ELECT 209 and ELECT 310B concurrently.</td>
<td></td>
</tr>
<tr>
<td>AC/R 450A Transport Refrigeration</td>
<td>5</td>
</tr>
<tr>
<td>†AC/R 450B Advanced Transport Refrigeration</td>
<td>5</td>
</tr>
<tr>
<td>WELD 400AD General Welding</td>
<td>2</td>
</tr>
<tr>
<td>WELD 450AD Welding (Arc)</td>
<td>2</td>
</tr>
<tr>
<td>WELD 454AB Welding (Inert Gas - MIG &amp; TIG)</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>37</td>
</tr>
</tbody>
</table>

**ELECTIVES**

Select a minimum of THREE (3) Units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>†ELECT 212° Fundamentals of AC Electricity (3rd Semester)</td>
<td>3</td>
</tr>
<tr>
<td>ELECT 310C° Laboratory Practices (AC)</td>
<td>1</td>
</tr>
<tr>
<td>° Must enroll in ELECT 212 and ELECT 310C concurrently.</td>
<td></td>
</tr>
<tr>
<td>AC/R 400A Uniform Mechanical Code I</td>
<td>3</td>
</tr>
<tr>
<td>SHMET 220A Surface Development &amp; Fabrication</td>
<td>5</td>
</tr>
<tr>
<td>WELD 452AD Welding (Acetylene Gas)</td>
<td>2</td>
</tr>
<tr>
<td>+WELD 454AB Welding (Inert Gas)</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Units</strong></td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS** | 40     |

**RECOMMENDED COURSES**

Recommended for Computer Proficiency:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMIS 1A, Using the IBM Microcomputer OR †ELTC 41, Technical Applications of Minicomputers.</td>
<td></td>
</tr>
</tbody>
</table>

Recommended for Communication & Analytical Thinking:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>†ELTC 225, Algebra &amp; Trigonometry for Technicians OR †MATH 110, First Course in Algebra OR a more advanced level of Mathematics may be substituted.</td>
<td></td>
</tr>
</tbody>
</table>

Recommended for Natural Sciences:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVRS 1, Energy for the Future OR †CHEM 2, Elementary Chemistry.</td>
<td></td>
</tr>
</tbody>
</table>

**MEDICAL ASSISTING PROGRAM**

**Administrative Certificate/Clinical Certificate**

**Career or Completion Certificate and/or Associate in Arts or Science**

The Medical Assistant Program is designed to educate the student for immediate employment providing assistance to the physician in caring for patients in the medical office or clinic. The wide range of clinical and business duties provides an interesting career for one who enjoys working with people. The Medical Assisting Program is approved by the Long Beach Medical Association. The program is designed to be completed in one academic year and includes either the administrative or clinical assisting courses or a combination of both. This Certificate will prepare students for an entry-level position in a variety of ambulatory settings. Each certificate is the foundation for specialized clinical practice. This Associate Degree will prepare students for career advancement once a certificate has been earned. For more departmental information call (562) 938-4166.

**ADMINISTRATIVE CERTIFICATE REQUIRED COURSES**

**UNITS**

An Administrative Medical Assistant assists the physician in handling the business aspects of the medical office or clinic. The ranges of administrative duties include reception, handling telephone calls, scheduling, filing, bookkeeping and insurance billing.

**FIRST SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>†BIO 60 Human Biology 1</td>
<td>4</td>
</tr>
<tr>
<td>†AH 60 Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>†MA 270 Introduction to Medical Assisting</td>
<td>3</td>
</tr>
<tr>
<td>°Administrative Option - See Options</td>
<td>3</td>
</tr>
</tbody>
</table>

**SECOND SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>†AH 276 Health Care Law</td>
<td>1</td>
</tr>
<tr>
<td>†MA 284 Medical Assisting Specialized Practicum</td>
<td>2</td>
</tr>
<tr>
<td>†MA 288 Practicum Seminar</td>
<td>1</td>
</tr>
<tr>
<td>†MA 290 Medical Insurance Billing</td>
<td>3</td>
</tr>
<tr>
<td>°Administrative Option - See Options</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS** | 23     |

**ADMINISTRATIVE OPTIONS**

Choose one of the following options

**OPTION ONE:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTG 200A Introduction to Accounting</td>
<td>3</td>
</tr>
<tr>
<td>°Computer Class Any class which satisfies computer proficiency for graduation. FOR UPDATED LISTING SEE GENERAL COURSE PATTERN GUIDE.</td>
<td>1</td>
</tr>
</tbody>
</table>

**OPTION TWO**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>†CAOTC 39A,B Microsoft Word for Office, Levels 1-2</td>
<td>1:1</td>
</tr>
<tr>
<td>°CAOTC 47A Access for Office Applications, Beg.</td>
<td>3</td>
</tr>
</tbody>
</table>

**OPTION THREE**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTG 200A Introduction to Accounting</td>
<td>3</td>
</tr>
<tr>
<td>†AH 206A Medical Transcription</td>
<td>3</td>
</tr>
</tbody>
</table>

**CLINICAL CERTIFICATE**

A Clinical Medical Assistant assists the physician in caring for the patient in the medical office or clinic. The range of clinical duties include assisting with the physical exam, specialty exams and minor surgery; sterilization; taking a health history; laboratory procedures; diagnostic tests; pharmacology; venipuncture; giving injections and handling emergency situations.

**FIRST SEMESTER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>°Computer Class Any class which satisfies computer proficiency for graduation. FOR UPDATED LISTING SEE GENERAL COURSE PATTERN GUIDE.</td>
<td>1</td>
</tr>
<tr>
<td>†BIO 60 Human Biology 1</td>
<td>4</td>
</tr>
</tbody>
</table>
Curriculum Guides

Consult guides available in Counseling Centers for specific general education and required grades.
Levels 1-4, (F, SP) 1:1:1
• # CAOTC 236A-D Word Processing–WordPerfect (Levels 1–4) (F, SP) 1:1:1:1
CAOTC 222 Employment Testing and Interviewing (F, SP) 3
CAOTO 262 Professional Development for the Office (F, SP) 3
Subtotal Units 3
TOTAL UNITS 26-28

COMPLETION CERTIFICATES

Basic Word Processing Certificate

REQUIRED COURSES UNITS
CAOTC 39A Microsoft Word for the Office, Beg. 1
CAOTC 39B Microsoft Word for the Office, Intermediate 1
CAOTC 39C Microsoft Word for the Office, Advanced 1
CAOTC 236A Word Processing-WordPerfect, Beginning 1
CAOTC 236B Word Processing-WordPerfect, Intermediate 1
CAOTC 236C Word Processing-WordPerfect, Advanced 1
CAOTC 236D Word Processing-WordPerfect, Expert 1
CAOTO 216 Proofreading Skills 1
CAOTC 265 Computer Transcription 2
Subtotal Units 3
TOTAL UNITS 7

MERCHANDISING

Associate in Arts/Career Certificate

Students learn entry and mid-level skills in planning and implementing the promotion function of a business. Students enhance their skills in merchandising. With additional courses identified on a transfer curriculum guide for Business Administration students can prepare for a baccalaureate degree in this field. This certificate and degree program will prepare students for a variety of entry level sales and fashion merchandising positions. For more department information call (562)938-4332 or 938-4661.

REQUIRED COURSES UNITS
• CBIS 6 Introduction to Information Systems 4
FD 10 Textile Fibers and Fabrics 3
FD 20 Introduction to Fashion Merchandising 3
†FD 22A Introduction to Fashion Merchandising for Profit 1.5
†FD 22B Introduction to Fashion Merchandising for Profit II 1.5
†FD 23 Fashion/Merchandising Buying 3
MGMT 80 Small Business Entrepreneurship (F SP, S) 3
MKTG 40 Salesmanship (F, SP) 3
MKTG 41 Advertising (F, SP) 3
MKTG 47 Essentials of Marketing (F, SP) 3
† +MKTG 270AD Work Experience Issues (One semester required) (F, SP) 1
†+MKTG 273AD Work Experience (One semester required) (F, SP) 3
Subtotal Units 32

Select ONE of the following courses:
¶ACCTG 200A Introduction to Accounting 3
ACCTG 1A Principles of Accounting 4
TOTAL UNITS 35-36

RECOMMENDED but not required courses:
ENGL or SP English or Speech 3 - 6
ID 208AB Elementary Display & Visual Promotion 3:3
MKTG 42 Retailing Principles and Practices 3
PSYCH Psychology 3

MUSIC

Associate in Arts

This field of concentration is designed as a transfer program for music students who plan on completing a B.M. or B.A. of Music at a four-year institution. This Associate Degree will prepare students for transfer to a four-year college or university, develop their skills to perform in the professional world or continue with life-long learning pursuits. Career opportunities related to this course of study include but are not limited to: Music Educator (Elementary-Classroom Music, Instrumental/Choral Performance; Middle School/Junior High-General Music, Instrumental/Choral Performance; High School-General Music, Instrumental/Choral Performance, Music Theory/History, Piano/Guitar; College/University-Theory, History, Performance, Musicology, Com-position, Research), Music Performer, Composer/Arranger, Orchestra Management, Instrument Mak-ing/Repair, Researcher, Film/Television Consultant, Music Editor, Music Critic/Writer. For more departmental information call (562)938-4309.

REQUIRED COURSES UNITS
First Semester
¶MUSIC 1 Music Theory 1 3
MUSIC 5AD Musicianship 1 2
MUSIC 7AB Elementary Voice (1st semester) 2
MUSIC 51A-B Beginning Piano (1st semester) 2
MUSIC92AD OR 17AD Applied Music (1st semester) 1
**Performance Organization 1
Semester Total 11

Second Semester
†MUSIC 2 Music Theory 2 3
†MUSIC 9AD Musicianship 2 2
MUSIC 51A-B Beginning Piano (2nd semester) 2
MUSIC 92AD or 17AD Applied Music (2nd semester) 1
**Performance Organization 1
Semester Total 9

Third Semester
MUSIC 40A Music Appreciation (SP) 3
†MUSIC 92AD OR 17AD Applied Music (3rd semester) 1
**Performance Organization 1
Semester Total 5

Fourth Semester
†MUSIC 4 Music Theory 3 (SP) 3
†MUSIC 10AD Musicianship 3 2
CONSULT guides available in Counseling Centers for specific general education and required grades.
Curriculum Guides

music composition/technology program. For more department information call (562)938-4309.

**REQUIRED CORE COURSES**

<table>
<thead>
<tr>
<th>COURSE/DISCIPLINE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• MUSIC 71AD Introduction to Music Technology</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 75A-B The Music Business</td>
<td>1.5</td>
</tr>
<tr>
<td>† MUSIC 86AD Record Production (Fundamentals)</td>
<td>2</td>
</tr>
<tr>
<td>• MUSIC 93AD Record Production (Using MIDI)</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 94 Beginning Recording Techniques</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 98AD Synth/Drum Mach/Sequencer Programming</td>
<td>2</td>
</tr>
</tbody>
</table>

Subtotal Units 12

**REQUIRED COURSES FOR SPECIALITY**

<table>
<thead>
<tr>
<th>COURSE/DISCIPLINE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSIC 59AD Digital Recording &amp; Sampling Tech</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 60AD ProTools (Digital Audio Recording/Edit)</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 81AD Commercial Keyboard</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 83AD Film/Video Music Scoring</td>
<td>1</td>
</tr>
<tr>
<td>MUSIC 84AD Commercial Songwriting</td>
<td>2.5</td>
</tr>
<tr>
<td>MUSIC 88AD Small Studio Lab</td>
<td>1</td>
</tr>
<tr>
<td>MUSIC 90AD Commercial Theory</td>
<td>2.5</td>
</tr>
<tr>
<td>MUSIC 97AD Tools of the Trade</td>
<td>2</td>
</tr>
</tbody>
</table>

Subtotal Units 20

**ELECTIVES - Select SIX (6) units from the following:**

<table>
<thead>
<tr>
<th>COURSE/DISCIPLINE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSIC 59AD Digital Recording &amp; Sampling Tech</td>
<td>2</td>
</tr>
<tr>
<td>† MUSIC 71AD Introduction to Music Technology</td>
<td>2</td>
</tr>
<tr>
<td># MUSIC 78AD Studio Singers</td>
<td>2</td>
</tr>
<tr>
<td># MUSIC 78AD Studio Singers</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 44AD The Evening Jazz Choir</td>
<td>1:1:1</td>
</tr>
<tr>
<td>MUSIC 59AD Digital Recording &amp; Sampling Tech</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 60AD ProTools (Digital Audio Recording/Edit)</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 62AD/63AD Guitar/Bass (Beg./Int.)</td>
<td>1:1:1</td>
</tr>
<tr>
<td>MUSIC 68 Basic Audio Theory</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 81AD Commercial Keyboard</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 83AD Film/Video Music Scoring</td>
<td>2</td>
</tr>
<tr>
<td>† MUSIC 90AD Commercial Theory</td>
<td>2</td>
</tr>
<tr>
<td>† MUSIC 95 Intermediate Recording Techniques</td>
<td>2</td>
</tr>
<tr>
<td>† MUSIC 96AD Advanced Recording Techniques</td>
<td>2:2</td>
</tr>
<tr>
<td>† MUSIC 78AD Synth/Drum Mach/Sequencer Programming</td>
<td>2</td>
</tr>
</tbody>
</table>

Subtotal Units 6

**TOTAL UNITS** 38

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**COMMERCIAL MUSIC**

**Record Producer**

Associate in Arts/Career Certificate

Students prepare for pre-production and post-production techniques in the studio environment using state-of-the-art equipment. This certificate will prepare students for entry-level positions as a record producer in fields such as: recording studio, mastering, foley, music video, television, film, theater and multimedia. This Associate Degree will prepare students for career advancement once a certificate has been earned. Appropriate course selection will also facilitate transfer to a four-year college or university music performance program. For more departmental information call (562) 938-4309.

**REQUIRED CORE COURSES**

<table>
<thead>
<tr>
<th>COURSE/DISCIPLINE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• MUSIC 71AD Introduction to Music Technology</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 75A-B The Music Business</td>
<td>1:1</td>
</tr>
<tr>
<td>† MUSIC 86AD Record Production (Fundamentals)</td>
<td>2</td>
</tr>
<tr>
<td>• MUSIC 93AD Record Production (Using MIDI)</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 94 Beginning Recording Techniques</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 98AD Synth/Drum Mach/Sequencer Programming</td>
<td>2</td>
</tr>
</tbody>
</table>

Subtotal Units 12

**REQUIRED COURSES FOR SPECIALITY**

<table>
<thead>
<tr>
<th>COURSE/DISCIPLINE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSIC 61AD Music Mastering</td>
<td>1</td>
</tr>
<tr>
<td>† MUSIC 65AD Advanced-Pro Recording Techniques</td>
<td>2</td>
</tr>
<tr>
<td>† MUSIC 66AD Studio Mixdown Techniques</td>
<td>2:2</td>
</tr>
<tr>
<td>MUSIC 68 Basic Audio Theory</td>
<td>2</td>
</tr>
</tbody>
</table>

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89
Consult guides available in Counseling Centers for specific general education and required grades.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSIC 60AD</td>
<td>ProTools (Digital Audio Recording/Edit)</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 72AD</td>
<td>Commercial Improvisation/Arranging/Scoring</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 81AD</td>
<td>Commercial Keyboard</td>
<td>2:2</td>
</tr>
<tr>
<td>MUSIC 84AD</td>
<td>Commercial Songwriting</td>
<td>2:2:2</td>
</tr>
<tr>
<td>MUSIC 90AD</td>
<td>Commercial Theory</td>
<td>2:2</td>
</tr>
</tbody>
</table>

**Subtotal Units:** 20

**ELECTIVES** - Select SIX (6) units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSIC 50AD</td>
<td>Performance Showcase/Ensemble Workshop</td>
<td>1:1</td>
</tr>
<tr>
<td>MUSIC 60AD</td>
<td>ProTools (Digital Audio Recording/Edit)</td>
<td>2:2:2</td>
</tr>
<tr>
<td>MUSIC 63AD</td>
<td>Guitar/Bass (Intermediate)</td>
<td>1:1</td>
</tr>
<tr>
<td>MUSIC 74AD</td>
<td>Commercial Solo Voice</td>
<td>2:2:2</td>
</tr>
<tr>
<td>MUSIC 79AD</td>
<td>Guitar/Bass (Advanced)</td>
<td>1:1</td>
</tr>
<tr>
<td>MUSIC 80AD</td>
<td>Commercial Music Performance</td>
<td>1:1</td>
</tr>
<tr>
<td>MUSIC 81AD</td>
<td>Commercial Keyboard</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 83AD</td>
<td>Film/Video Music Scoring</td>
<td>1:1</td>
</tr>
<tr>
<td>*MUSIC 88AD</td>
<td>Small Studio Lab</td>
<td>1:1:1:1</td>
</tr>
<tr>
<td>†MUSIC 93AD</td>
<td>Record Production (Using MIDI)</td>
<td>2:2</td>
</tr>
<tr>
<td>†MUSIC 95</td>
<td>Intermediate Recording Techniques</td>
<td>2</td>
</tr>
<tr>
<td>†MUSIC 96AD</td>
<td>Advanced Recording Techniques</td>
<td>2:2</td>
</tr>
<tr>
<td>MUSIC 98AD</td>
<td>Synthesizer/Drum Machine/Sequencer Programming</td>
<td>2</td>
</tr>
</tbody>
</table>

**Subtotal Units:** 6

**TOTAL UNITS:** 38

---

**NUMERICAL CONTROL TECHNICIAN**

**MANUFACTURING TECHNOLOGY**

Career Certificate and/or Associate in Science

Students prepare for entry-level positions as a Numerical Control Technician in the aerospace or comparable manufacturing industry. Numerical Control Technicians locate, trouble shoot, examine, inspect, diagnose, repair and test all aspects of electronic and electronic/mechanical components of numerical control systems, servo and stepping motors, hydraulic and pneumatic servo and solenoid valves found on typical NC machine tools and other NC manufacturing equipment. Level 1 meets the competencies set forth by the Southern California Aerospace Industry Education Council. Level 1 competencies are required for Level 2 classes. For more departmental information call (562)938-3078.

**LEVEL 1 - REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>¶COMIS 1A</td>
<td>Using the IBM</td>
<td>1</td>
</tr>
<tr>
<td>OR</td>
<td>CPAS 1B Using the MAC as a Tool for Learning</td>
<td>1</td>
</tr>
<tr>
<td>DRAFT 203AD</td>
<td>Mechanical Drawing</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td>¶DRAFT 51A Industrial Drafting</td>
<td>3</td>
</tr>
<tr>
<td>¶MACHT 50A</td>
<td>Machine Tool Operation and Practices</td>
<td>3</td>
</tr>
<tr>
<td>¶MACHT 50B</td>
<td>Machine Tool Operation &amp; Practices</td>
<td>3</td>
</tr>
<tr>
<td>ELTC 225</td>
<td>Algebra &amp; Trigonometry for Technicians</td>
<td>3:4</td>
</tr>
</tbody>
</table>

*A more advanced or transferable math course. (Trigonometry is recommended.)

**LEVEL 2 - REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>†DRAFT 51B</td>
<td>Industrial Drafting II</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td>ARCHT 60 Architectural Design</td>
<td>8</td>
</tr>
<tr>
<td>†TEC 60</td>
<td>Computer Aided Design &amp; Drafting (CADD)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal Units:** 6-11

**Complete the following TWENTY-FIVE (25) Units:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ELTC 54</td>
<td>Digital/Telecommunications Circuits</td>
<td>6</td>
</tr>
<tr>
<td>+ELTC 54L</td>
<td>Digital/Telecommunications Lab</td>
<td>2</td>
</tr>
<tr>
<td>†ELTC 55</td>
<td>Microcomputer/Introduction to Robotics</td>
<td>6</td>
</tr>
<tr>
<td>†ELTC 55L</td>
<td>Microcomputer/Introduction to Robotics Lab</td>
<td>2</td>
</tr>
<tr>
<td>ELTC 56A-C</td>
<td>Robotics Technology</td>
<td>2:2:2</td>
</tr>
<tr>
<td>ELTC 56LA-C</td>
<td>Robotics Technology Lab</td>
<td>1:1:1</td>
</tr>
</tbody>
</table>

**Subtotal Units:** 25

**TOTAL UNITS:** 45-51

**ADDITIONAL DESIRABLE COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTC 45AD</td>
<td>Welding (Acetylene Gas)</td>
<td>1:1:1:1</td>
</tr>
</tbody>
</table>

**NOTE:** If 300 numbered versions of classes exist, they may be used toward the total units required.

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**NURSING: ASSOCIATE DEGREE (RN) PROGRAM**

Career Certificate and Associate in Art or Science

The program is designed to be completed in two years (after completion of pre-requisites) and qualifies the student to take the NCLEX-RN licensing examination given by the State of California Board of Registered Nursing. The program satisfies the requirements for an Associate degree and/or a Career Certificate. The graduate is qualified for immediate employment in acute care hospitals and many other health care facilities. This Associate Degree and Certificate prepares students for an entry-level position in a variety of health care settings following successful completion of the NCLEX-RN. The ADN also serves as a foundation for specialization. Graduates of the Associate Degree Nursing Program are also eligible to transfer into the upper division nursing courses in ADN to bachelor’s degree nursing programs and ADN to masters degree nursing programs.

**REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREREQUISITES (Required Prior to Enrollment in Program)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*BIO 60</td>
<td>Human Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 60L</td>
<td>Human Biology I Lab</td>
<td>1</td>
</tr>
<tr>
<td>CDECE 47</td>
<td>Human Development</td>
<td>3</td>
</tr>
<tr>
<td>¶*ENGL 105</td>
<td>Fundamentals of Writing</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>ENGL 1 Reading and Composition</td>
<td>3-4</td>
</tr>
</tbody>
</table>

**Subtotal Units:** 11-12

**FIRST SEMESTER**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>¶ADN 11A</td>
<td>Introduction to Nursing (F, SP)</td>
<td>2.5</td>
</tr>
<tr>
<td>†ADN 11AL</td>
<td>Introduction to Nursing Laboratory (F, SP)</td>
<td>1.5</td>
</tr>
<tr>
<td>†ADN 11B</td>
<td>Health Deviations I (F, SP)</td>
<td>2.5</td>
</tr>
</tbody>
</table>

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Curriculum Guides

Consult guides available in Counseling Centers for specific general education and required grades.

†ADN 11BL Health Deviations 1 Laboratory (F, SP) 1.5
†BIO 62 Human Biology 2 3
*PSYCH 1 Introduction to Psychology
  OR
SOCIO 1 Introduction to Sociology 3
Subtotal Units 14

SECOND SEMESTER
†ADN 12A Health Deviations 2 (F, SP) 2.5
†ADN 12AL Health Deviations 2 Laboratory (F, SP) 1.5
†ADN 12B Health Deviations 3 (F, SP) 2.5
†ADN 12BL Health Deviations 3 Laboratory (F, SP) 1.5
†BIO 61 Human Biology 3 3
*PSYCH 1 Introduction to Psychology
  OR
SOCIO 1 Introduction to Sociology (Whichever not already taken above) 3
Subtotal Units 14

THIRD SEMESTER
†ADN 21A Women’s Health (F, SP) 2.5
†ADN 21AL Women’s Health Laboratory (F, SP) 3
†ADN 21B Mental Health (F, SP) 2.5
†ADN 21BL Mental Health Laboratory (F, SP) 3
†ADN 31A Trends in Nursing “A” (F, SP) 1
*SP 10, 20 OR 30 General Ed. Requirement 3
Subtotal Units 15

FOURTH SEMESTER
†ADN 22A Advanced Nursing 1 (F, SP) 2.5
†ADN 22AL Advanced Nursing 1 Laboratory (F, SP) 3
†ADN 22B Advanced Nursing 2 (F, SP) 2.5
†ADN 22BL Advanced Nursing 2 Laboratory (F, SP) 3
†ADN 31B Trends in Nursing “B” (F, SP) 1
*A course from the Humanities General Ed. Requirement 3
Subtotal Units 15

TOTAL UNITS 69-70

RECOMMENDED but not required courses:
ADN 200AD, 201AD Nursing Skills Adjunct Lab 0.5
ADN 286 Nursing Applications of Pharmacology 3
ADN 810 Preparation for Nursing 0.5
AH 60 Medical Terminology 3
†AH 221AD Health Promotion Practicum 3
†AH 222 Intravenous Therapy 1
†AH 225 Basic Arrhythmia Recognition 0.5
PEPP 6AD Introduction to Principles of Adapted PE 2

NURSING: LVN to RN
Career Ladder Program
Career Certificate and/or Associate in Arts or Science

Long Beach City College is fully accredited by the Western Association of Schools and Colleges. The nursing program is accredited by the National League for Nursing Accrediting Commission, 61 Broadway, 33rd Floor, New York, NY, 10006. (212) 363-5555 and the State of California Board of Registered Nursing. The Career Ladder Program (Licensed Vocational Nurse to Registered Nurse Program) is designed to be completed in two and a half semesters. Two advanced placement programs are offered: Associate Degree program and a Certificate program (30 unit option). This Associate Degree and Certificate prepare students for an entry-level position in a variety of health care settings following successful completion of the NCLEX-RN. The ADN also serves as a foundation for specialization. Persons who complete either program are qualified to take the registered nurse national licensing exam. However, persons who complete only the certificate program are not graduates of an accredited ADN program and may not qualify for license by endorsement in other states. For additional information call (562)938-4166.

RESTRICTIONS ON LICENSURE:
Persons with substance abuse problems or with conviction of crimes substantially related to the practice of nursing may not be granted a license by the Board of Registered Nursing. Fingerprints are part of the application for licensure. For further information see BRN Policy on Denial of Licensure.

ASSOCIATE DEGREE OF NURSING PROGRAM
LVN to RN Career Ladder Degree Program

Graduates of the LVN to RN Career Ladder Degree Program are eligible to transfer into the upper division nursing courses in ADN to bachelor’s degree nursing programs and ADN to master’s degree nursing programs. A suggested full-time sample sequence of courses for the program is listed below. All ADN courses are sequential.

PREREQUISITES COURSES FOR THE PROGRAM

1. Complete the following courses with a “C” or better.
   *BIO 60 Human Biology 1 4
   BIO 60L Human Biology 1 Lab 1
   †BIO 61 Human Biology 2 3
   †BIO 62 Human Biology 3 3
   CDECE 47 Human Development 3
   *PSYCH 1 Introduction to Psychology 3
   #ENGL 105 Fundamentals of Writing
   OR
   ENGL 1 Reading and Composition 3
   Subtotal Units 20-21

RECOMMENDED but not required:
ADN 286 Nursing Applications of Pharmacology 3
PEPP 6AD Introduction to Principles of Adapted PE 2

2. Pass NURSING DEPARTMENT EXAMINATION with a score of 75% or better prior to enrollment in program. This multiple choice test covers theoretical aspects of first level nursing practice and is given on an individual basis. The test may be taken twice. Before a third attempt, a student must wait for a period of six months.

Subtotal (advanced placement) units 16

3. Hold a current license to practice as a Vocational Nurse in California.

TOTAL PREREQUISITE UNITS 36-37
REQUIRED COURSES

First Semester
†ADN 20A ± Transition to Second Level Nursing (F, SP) 1
(Student must be prepared to enter the program within one year after successful completion of ADN 20A.)
SOCIO 1 Introduction to Sociology 3
Subtotal Units 4

Second Semester
†ADN 21A Women’s Health (F, SP) 2.5
†ADN 21AL Women’s Health Laboratory (F, SP) 3
†ADN 21B Mental Health (F, SP) 2.5
†ADN 21BL Mental Health Laboratory (F, SP) 3
*SP 10, 20 OR 30 General Education Requirement 3
†ADN 31A Trends in Nursing A (F, SP) 1
Subtotal Units 15

Third Semester
* A course from the Humanities General Education Requirement List 3
†ADN 22A Advanced Nursing 1 (F, SP) 2.5
†ADN 22AL Advanced Nursing 1 Laboratory (F, SP) 3
†ADN 22B Advanced Nursing 2 (F, SP) 2.5
†ADN 22BL Advanced Nursing 2 Laboratory (F, SP) 3
†ADN 31B Trends in Nursing B (F, SP) 1
Subtotal Units 15
TOTAL UNITS 34

Students must complete the courses outlined on the curriculum guide for the year in which they take their first nursing course. Students who withdraw from the program will be obligated by the guide of the year of their re-entry into the program.

NOTE: All REQUIRED general education courses must be completed before entry to the program since all of them will be required before earning the associate degree.

CERTIFICATE PROGRAM
(30 units option)

PREREQUISITES
LVN to RN Certificate Program (30 Unit Option)
This Certificate prepares students for an entry-level position in a variety of health care settings following successful completion of the NCLEX-RN. Persons who complete only the certificate program are not graduates of an accredited ADN Program and may not qualify for licensure in other states and/or for admission to graduate programs of nursing.

1. Complete the following course with a grade of "C" or better.
BIO 60 Human Biology 1 4
†BIO 61 Human Biology 2 3
†BIO 62 Human Biology 3 3
Subtotal Units 10

2. Take the NURSING DEPARTMENT EXAMINATION. This multiple-choice test covers the theoretical aspects of first level nursing practice. Results will be used for counseling in the program.

TOTAL PREREQUISITE UNITS 10

RECOMMENDED but not required:
ADN 286 Nursing Applications of Pharmacology 3
BIO 60L Human Biology 1 Lab 1
CDECE 47 Human Development 1
SOCIO 1 Introduction to Sociology 3
PSYCH 1 Introduction to Psychology 3
SP 10, 20, 30 Speech Classes 3

REQUIRED COURSES

First Semester
†ADN 20A Transition to Second Level Nursing (Recommended but not required ADN 202AD, Nursing Skills Adjunct Lab) 1
Subtotal Units 1

Second Semester
†ADN 321A Adv. Obstetrics and Women’s Health 1.5
†ADN 321AL Advanced Obstetrics and Women's Health Laboratory 1.5
†ADN 21B Mental Health 2.5
†ADN 21BL Mental Health Laboratory 3
†ADN 31A Trends in Nursing A 1
Subtotal Units 9.5

Third Semester
†ADN 322A Advanced Nursing 1, Adult 1.5
†ADN 222AL Advanced Nursing 1, Adult Laboratory 1.5
†ADN 22B Advanced Nursing 2 2.5
†ADN 22BL Advanced Nursing 2 Laboratory 3
†ADN 31B Trends in Nursing B 1
Subtotal Units 9.5

TOTAL UNITS (10 PREREQUISITES + 20 REQUIRED CERTIFICATE COURSES) 30

NURSING: VOCATIONAL
Career or Completion Certificate and/or Associate in Arts or Science
The Career Ladder Program (Certified Nursing Assistant to Vocational Nursing Program) is designed to be completed in twelve months. Completion of the Vocational Nursing Program qualifies the student to take the national licensing examination for vocational nurses (NCLEX-PN). The Licensed Vocational Nurse is qualified for employment in ambulatory care facilities, skilled nursing facilities, physician’s offices, acute care hospitals, convalescent care facilities and the home. The Licensed Vocational Nurse is qualified to take the examination for the second year of the Long Beach City College Associate Degree Nursing Program.

CNA to LVN

REQUIRED COURSES AND SCHEDULE
FIRST SIX WEEKS
* BIO 60 Human Biology 1 4
VOCN 290A Roles and Responsibilities 1 1.5
Subtotal Units 5.5

SECOND SIX WEEKS
VOCN 285 Transition to Vocational Nursing 1
VOCN 286 Nursing Applications of Pharmacology 3
Subtotal Units 4

THIRD SIX WEEKS
* BIO 61 Human Biology 2 OR 3
BIO 261 Human Biology for Vocational Nurses 3
†VOCN 288C Common Mental Health Deviations 1 3
Subtotal Units 6

FOURTH SIX WEEKS
†VOCN 287B Common Health Deviations 1 3
†VOCN 287BL Common Health Deviations 1 Lab 3
Consult guides available in Counseling Centers for specific general education and required grades.
Curriculum Guides

CAOTC 39A Microsoft Word for the Office, Beg. 1
CAOTC 45 Telecommunications and the Internet 2
CAOTO 214A Filing 1
CAOTO 260 Business Telephone Procedures 1
AND EITHER
CAOTT 200A Beginning Typing/Keyboarding 1
CAOTT 200B Beginning Typing/Keyboarding B 1
OR
CAOTT 200 Beginning Typing/Keyboarding 3

TOTAL UNITS 7-8

Basic Office Computer Skills Certificate

REQUIRED COURSES UNITS
CAOTC 34 Introduction to Computers and Applications 3
CAOTC 31A Microsoft Windows Operating System, Beginning 1
CAOTC 45 Telecommunications and the Internet 2
AND ONE OF THE FOLLOWING
CAOTT 200A Beginning Typing/Keyboarding 1
CAOTT 200 Beginning Typing/Keyboarding 3
CAOTO 216 Proofreading Skills 1
CAOTC 265 Computer Transcription 2

TOTAL UNITS 7-9

Basic Word Processing Certificate

REQUIRED COURSES UNITS
CAOTC 39A Microsoft Word for the Office, Beginning 1
CAOTC 39B Microsoft Word for the Office, Intermediate 1
CAOTC 39C Microsoft Word for the Office, Advanced 1
OR
CAOTC 236A Word Processing-WordPerfect, Beginning 1
CAOTC 236B Word Processing-WordPerfect, Intermediate 1
CAOTC 236C Word Processing-WordPerfect, Advanced 1
CAOTC 236D Word Processing-WordPerfect, Expert 1
CAOTO 39A Microsoft Word for the Office, Beginning 1
CAOTC 39B Microsoft Word for the Office, Intermediate 1
CAOTO 39C Microsoft Word for the Office, Advanced 1
CAOTO 39D Microsoft Word for the Office, Expert 1

TOTAL UNITS 7

Microsoft Word Certificate

REQUIRED COURSES UNITS
CAOTC 39A Microsoft Word for the Office, Beginning 1
CAOTC 39B Microsoft Word for the Office, Intermediate 1
CAOTO 39C Microsoft Word for the Office, Advanced 1
CAOTO 39D Microsoft Word for the Office, Expert 1

TOTAL UNITS 4

PHOTOGRAPHY

COMMERCIAL

Career Certificate and/or Associate in Science

Students learn entry-level skills necessary to embark upon a career in the photography industry. It includes emphasis on practical applications leading to career advancement. This certificate will prepare students for an entry-level position in the field of commercial photography. This Associate Degree will prepare students for career advancement once a certificate has been earned. Appropriate course selection will also facilitate transfer to a four-year college or university. For more departmental information call (562)938-4319.

REQUIRED COURSES UNITS
ART 31 Fundamentals of Art/Composition & Color (F, SP) 3
PHOT 31AB Basic Photography-Black & White (1st Semester) (F, SP, S) 3
PHOT 32AD Basic Photography–Color (1st Semester) (F, SP, S) 3
PHOT 33AD Photography Studio Lighting (1st Semester) (F, SP, S) 4
PHOT 34AD Advanced Photography (1st Semester) (F, SP, S) 4
PHOT 35AD Photojournalism (1st Semester) (SP) 3
PHOT 37AD Portrait Photography (1st Semester) (F, SP, S) 4
PHOT 42AD Experimental Photography Lab (1st Semester) (F, SP) 4
PHOT 43AD Digital Photography (F, SP) 3

Subtotal Units 31

Select THREE (3) units from the following courses:
PHOT 70AD Work Experience Issues Seminar (SP) 1:1:1:1
PHOT 71AD Work Experience-Photography (SP) 1:1:1
PHOT 72AD Work Experience-Photography (SP) 2:2:2:2
PHOT 73AD Work Experience-Photography (SP) 3:3:3:3

Subtotal Units 3

REQUIRED COURSES UNITS
ART 80 Elements of Photography (F, SP) 3
PHOT 1 The Photographic Vision (INF) 2
PHOT 31AB Basic Photography-Black & White (2nd Semester) (F, SP, S) 3
PHOT 32AD Basic Photography–Color (2nd Semester or later) (F, SP, S) 3
PHOT 33AD Photography Studio Lighting (2nd Semester or later) (F, SP, S) 4
PHOT 34AD Advanced Photography

Select SIX (6) units from the following courses:

Microsoft Excel Certificate

REQUIRED COURSES UNITS
CAOTC 41E Excel for Windows-Beginning 1
CAOTC 41F Excel for Windows-Intermediate 1
CAOTC 41J Excel for Windows-Advanced 1

TOTAL UNITS 3
Curriculum Guides

Consult guides available in Counseling Centers for specific general education and required grades.

PHOTOJOURNALISM

Career Certificate
Students learn the entry-level skills necessary to embark upon a career in the news and documentary photography field. It includes emphasis in practical applications leading to career advancement.

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>†ENGL 1 or ENGL 1H Reading &amp; Composition</td>
<td>3</td>
</tr>
<tr>
<td>†ENGL 105 Fundamentals of Writing</td>
<td>4</td>
</tr>
<tr>
<td>†JOURN 80AD Working on the Newspaper (2 semesters) (F, SP, S)</td>
<td>3:3</td>
</tr>
<tr>
<td>‡PHOT 31AB Basic Photo-Black &amp; White</td>
<td>3</td>
</tr>
<tr>
<td>PHOT 32A Basic Photo-Color</td>
<td>3</td>
</tr>
<tr>
<td>PHOT 35AD Photojournalism (1 semester)</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal Units 18-19

Select NINE (9) units from the following:

JOURN 60AD Making and Editing the Magazine (SP) 3:3
JOURN 70AD Work Experience Issues (F, SP) AND 1
JOURN 71AD, 72AD, 73AD Work Experience (F, SP) OR 1, 2, 3
PHOT 70AD Work Experience Issues AND 1
PHOT 71AD, 72AD, 73AD Work Experience 1, 2, 3
†JOURN 80AD Working on the Newspaper (F, SP, S) 3:3
JOURN 85AD Editor Training (F, SP) 3:3
PHOT 35AD Photojournalism 3:3:3
†PHOT 39 Documentary Photography 3

Subtotal Units 9

TOTAL UNITS 27-28

PHYSICAL EDUCATION/RECREATION

Associate in Arts
This field of concentration is designed to provide students with the knowledge, skill and experience to continue their education leading toward a Bachelor's degree in this major. Activities are designed to provide learning for students in the physical, cognitive, affective and recreational areas. For more departmental information call (562)938-4378.

Complete EIGHTEEN (18) units as specified from either the TEACHING EMPHASIS or the NON-TEACHING EMPHASIS:

TEACHING EMPHASIS

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEPP 1 Introduction to Physical Education</td>
<td>2</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>PEPP 7 Introduction to Community Recreation</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal Units 2-3

AND Select 15-16 units to bring total units to 18 from at least FOUR of the Following Categories:

Professional Preparation Category

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEPF 8AD Aerobic Circuit Training</td>
<td>2.5</td>
</tr>
<tr>
<td>PEPF 83AD, 84AD Fitness &amp; Wellness I &amp; II (F, SP)</td>
<td>2</td>
</tr>
<tr>
<td>PEPF 5 Sports Appreciation (F)</td>
<td>3</td>
</tr>
<tr>
<td>PEPF 10 Prevention &amp; Care of Athletic Injuries (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>*PEPF 15 Sports Officiating (F)</td>
<td>3</td>
</tr>
<tr>
<td>*PEPF 17 Sports Officiating (SP)</td>
<td>3</td>
</tr>
<tr>
<td>PEPF 19AD Theory of Football (F)</td>
<td>2</td>
</tr>
<tr>
<td>PEPF 23 First Aid &amp; Safety Education</td>
<td>3</td>
</tr>
<tr>
<td>#PEPF 70 AD Work Experience Issues (F, SP)</td>
<td>1</td>
</tr>
<tr>
<td>#PEPF 71AD, 72AD OR 73AD Work Experience (F, SP)</td>
<td>1, 0.5</td>
</tr>
</tbody>
</table>

TOTAL UNITS 1, 3

Aquatics Category

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>*PEG 55AD Life Guard/Water Safety Training (F, SP, S)</td>
<td>4</td>
</tr>
<tr>
<td>*PEG 75AD OR PEG 76AD Swimming (F, SP, S) 0,5,1</td>
<td>4, 5,1</td>
</tr>
<tr>
<td>PEPF 41AD OR 42AD Swimming Fitness 0,5,1</td>
<td></td>
</tr>
<tr>
<td>*PEPF 47AD OR 48AD Swim Fitness/Polo (F, SP)0,5,1</td>
<td></td>
</tr>
<tr>
<td>*PEPF 41 Aquatics (Coed) (F, SP)</td>
<td>2</td>
</tr>
</tbody>
</table>

Individual & Dual Activities Category

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>*PEPF 2AD Monitoring and Developing Sports Skills (S)</td>
<td>1</td>
</tr>
<tr>
<td>*PEPF 13 OR PEPF 5AD OR PEPF 6AD Dance Aerobics (F, SP, S)</td>
<td>1, 0.5,1</td>
</tr>
<tr>
<td>*PEPF 29 OR PEP 87AD OR PEP 88AD Cross Country OR Track &amp; Field (Men) (F)</td>
<td>1, 0.5,1</td>
</tr>
<tr>
<td>*PEIA 9AD OR PEIA 19AD Cross Country, Track &amp; Field (Men) (SP)</td>
<td>3</td>
</tr>
<tr>
<td>*PEG 5AD OR PEG 6AD Archery (Coed) (F, SP) 0,5,1</td>
<td>3, 5,1</td>
</tr>
<tr>
<td>*PEG19AD OR PEG20AD Bowling (Coed) (F, SP)0,5,1</td>
<td></td>
</tr>
<tr>
<td>*PEPF 45 OR PEP 9AD OR PEG 10AD Badminton (Coed) (F, SP)</td>
<td>1, 0.5,1</td>
</tr>
<tr>
<td>*PEPP 51 OR PEG 31AD OR PEG 32AD Golf (Coed/Women) (F, SP) OR 1, 0.5,1</td>
<td></td>
</tr>
<tr>
<td>*PEIA 9AD Golf (Coed/Women) (SP) OR 3</td>
<td></td>
</tr>
<tr>
<td>*PEIA 31AD Golf (Coed/Women) (F)</td>
<td>3</td>
</tr>
<tr>
<td>*PEPF 53 OR PEG 83AD OR PEG 84AD Tennis (Coed) (F, SP, S)</td>
<td>1, 0.5,1</td>
</tr>
<tr>
<td>*PEG 58AD Intramural Activities (F, S)</td>
<td>1</td>
</tr>
<tr>
<td>*PEPF 65 OR PEIA 43AD Track &amp; Field (Women) (SP) OR 1, 3</td>
<td></td>
</tr>
<tr>
<td>*PEG 87AD OR PEG 88AD Track &amp; Field</td>
<td></td>
</tr>
</tbody>
</table>
(Women) (F, SP) OR 0.5,1
*PEIA 29AD Track & Field (Women) (F) 3
*PEG 59AD OR PEG 60AD Racquetball (Coed) (F, SP) 0.5,1

**Fitness and Combatives Category†**
*PEG 65AD OR 66AD Self Defense (F, SP) 0.5,1
*PEIA 29AD Track & Field (Women) (F) 3
*PEG 59AD OR PEG 60AD Racquetball (Coed) (F, SP) 0.5,1

Fitness and Combatives Category†
*PEG 65AD OR 66AD Self Defense (F, SP) 0.5,1
*PEIA 29AD Track & Field (Women) (F) 3
*PEG 59AD OR PEG 60AD Racquetball (Coed) (F, SP) 0.5,1

Team Sports†
*PEPP 25 Baseball (Men) (F, SP) OR 1
PEG11AD OR PEG12AD Baseball (Men) (F, S) OR 0.5,1
PEIA 1AD Baseball (Men) (SP) 3
*PEPP 27 Basketball (Men) (F) OR 1
PEG 13AD OR PEG 14AD OR PEIA 3AD Basketball (Men) (F, SP) 0.5,1

*PEPP 31 Football (Men) (SP) OR 1
PEG85AD OR PEG86AD Football (Men) (F, SP) OR 0.5,1
PEIA 7AD Football (Men) (F) 3
*PEPP 35 Soccer (Men) (SP) OR 1
PEG69AD OR PEG70AD Soccer (Men) (F, S) OR 0.5,1
PEIA 13AD Soccer (Men) (F) 3
*PEPP37 OR PEIA21AD Volleyball (Men) (SP) OR 1,3
PEG 89AD OR PEG 90AD Volleyball (Men) (F, SP) 0.5,1
*PEPP 55 Basketball (Women) (F) OR 1
PEG 13AD Basketball (Women) (F, S) OR 0.5
PEG 14AD OR PEIA 27AD Basketball (Women) (F, SP) 1,3

*PEG 58AD Intramural Activities (F, SP) 1
*PEPP 61 OR PEIA 35AD Soccer (Women) (F) OR 1,3
PEG 69AD OR PEG 70AD Soccer (Women) (F, SP) 0.5,1
*PEPP63 OR PEIA37AD Softball (Women) (SP) OR 1,3
PEG73AD OR PEG74AD Softball (Women) (SP, F) 0.5,1
*PEPP 67 Volleyball (Women) (SP) OR 1
PEG 89AD OR PEG 90AD Volleyball (Women) OR (F, SP) 0.5,1
PEIA 45AD Volleyball (Women) (F) 3

**Outdoor Studies†**
*PEOS 5AD Back Packing (F) 1
*PEOS 55AD OR PEOS 56AD Nordic Skiing (SP) 0.5,1
*PEOS61AD OR PEOS62AD Snow Skiing (F, SP) 0.5,1

Subtotal Units 15-16
TOTAL UNITS 18

THEMA TEACHING EMPHASIS

Select EIGHTEEN (18) units from at least FOUR categories:

Courses for the following categories are the same as listed under the TEACHING EMPHASIS:

AQUATICS, INDIVIDUAL & DUAL ACTIVITIES, FITNESS & COMBATIVES, OUTDOOR STUDIES, PROFESSIONAL PREPARATION, TEAM SPORTS and, as a category, PEPP 1 & PEPP 7.

TOTAL UNITS 18

For students pursuing a Bachelor of Arts Degree in Physical Education, the following courses are often required: ANAT 1, PHYS 1, PSYCH 1.

**PHYSICAL SCIENCES**

Associate in Arts or Science

Students are provided an introduction to the lower division course preparation for transfer to a baccalaureate degree in various physical science majors. This Associate Degree will prepare students for an entry-level position as environmental technician. Appropriate course selection will also facilitate transfer to a related major. For more departmental information call (562)938-4423.

REQUIRED COURSES UNITS
Complete TWELVE-THIRTEEN (12 - 13) units from the following courses:
ASTR, CHEM, ENVRS 1, PEGEOG 1, GEOL, PHYS
Subtotal Units 12-13

Complete the following course:
COMIS 1A or CPAS1B Using the IBM/MacIntosh Microcomputer 1
Subtotal Units 1

Complete FIVE-SIX (5-6) units from any Mathematics course which has a prerequisite of Intermediate Algebra or higher MATH
Subtotal Units 5-6
TOTAL UNITS 18-20

NOTE: Courses are offered each semester excluding the following: CHEM 12A and 12B which is offered on an alternating semester basis. PHYS 3C is offered once a year.

**RADIO/TELEVISION**

**BROADCAST NEWS**

Career Certificate and/or Associate in Arts

Students prepare for writing, editing and producing radio or television news and news feature programs. This certificate will prepare students for an entry-level position or skills for advancement in the fast growing field of Broadcast News and related information distribution elements of various industries. The Associate Degree will prepare students for career advancement in this field. Appropriate course selection will also facilitate transfer to a four-year college or university in communications, broadcast or journalism. For more departmental informa-tion call (562)938-4309 or 938-4564.
### REQUIRED CORE COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/TV 1</td>
<td>Introduction to Broadcasting (F, SP, S)</td>
<td>3</td>
</tr>
<tr>
<td>R/TV 3</td>
<td>Introduction to Media Production (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>R/TV 8</td>
<td>Introduction to Media Production (F)</td>
<td>3</td>
</tr>
<tr>
<td>R/TV 13</td>
<td>Television Production (F, SP)</td>
<td>2</td>
</tr>
<tr>
<td>R/TV 13AD</td>
<td>Television Production (F, SP)</td>
<td>2</td>
</tr>
</tbody>
</table>

**Subtotal Units:** 10

### REQUIRED COURSES FOR SPECIALITY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/TV 13AD</td>
<td>Television Production (F, SP)</td>
<td>2</td>
</tr>
<tr>
<td>R/TV 25AD/35AD</td>
<td>Radio/Television Activity (F, SP)</td>
<td>2:2</td>
</tr>
<tr>
<td>R/TV 34AD</td>
<td>Music Video Production</td>
<td>2</td>
</tr>
<tr>
<td>R/TV 36AD</td>
<td>Broadcast News Production (F, SP)</td>
<td>3:3:3</td>
</tr>
<tr>
<td>R/TV 37</td>
<td>Radio/Television Management and Sales (F)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Subtotal Units:** 6

### ELECTIVE COURSES (Select TEN (10) units from the following):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/TV 2</td>
<td>Introduction to Careers in Radio &amp; Television (F)</td>
<td>2</td>
</tr>
<tr>
<td>R/TV 4</td>
<td>Writing and Production Planning (INF)</td>
<td>3</td>
</tr>
<tr>
<td>R/TV 10</td>
<td>Evaluation of the Medium (INF)</td>
<td>3</td>
</tr>
<tr>
<td>R/TV 15AC</td>
<td>Advanced Television Production (INF)</td>
<td>2</td>
</tr>
<tr>
<td>R/TV 17AD</td>
<td>Special Projects in Radio/Television (INF)</td>
<td>1</td>
</tr>
<tr>
<td>R/TV 21</td>
<td>Radio Production (S)</td>
<td>3</td>
</tr>
<tr>
<td>R/TV 34AD</td>
<td>Music Video Production</td>
<td>2:2</td>
</tr>
<tr>
<td>R/TV 38</td>
<td>Electronic Editing and Production (F)</td>
<td>3</td>
</tr>
<tr>
<td>R/TV 43AD</td>
<td>Digital Photography (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>R/TV 47AD</td>
<td>Computer Art and Design for Multimedia (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>R/TV 70AD</td>
<td>Work Experience Issues-Radio/Television (F, SP)</td>
<td>1</td>
</tr>
<tr>
<td>R/TV 71/73AD</td>
<td>Work Experience (F, SP)</td>
<td>2:3</td>
</tr>
</tbody>
</table>

**Subtotal Units:** 10

**TOTAL UNITS:** 42

## RADIO/TELEVISION PERFORMANCE

### Career Certificate and/or Associate in Arts

Students prepare to compete in the world of Multimedia Production in a specific area of computer-based design or production and editing in the communication, information and/or entertainment industries. This certificate will prepare students for an entry-level position and/or skills for advancement in a variety of performance opportunities including live, broadcast and recorded venues. The Associate Degree will prepare students for career advancement in this field. Appropriate course selection will also facilitate transfer to a four-year college or university in a broadcast, film or performance program. For more departmental information call (562) 938-4309 or 938-4564.

### REQUIRED CORE COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/TV 1</td>
<td>Introduction to Broadcasting (F, SP, S)</td>
<td>3</td>
</tr>
<tr>
<td>R/TV 3</td>
<td>Using/MAC Computer/Entertainment Industry (F, SP)</td>
<td>2</td>
</tr>
<tr>
<td>R/TV 8</td>
<td>Introduction to Media Production (F)</td>
<td>3</td>
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<tr>
<td>R/TV 13</td>
<td>Television Production (F, SP)</td>
<td>2</td>
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</table>

**Subtotal Units:** 10

### REQUIRED COURSES FOR SPECIALITY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>R/TV 13AD</td>
<td>Television Production (F, SP)</td>
<td>2</td>
</tr>
<tr>
<td>R/TV 25AD/35AD</td>
<td>Radio/Television Activity (F, SP)</td>
<td>2:2</td>
</tr>
<tr>
<td>R/TV 34AD</td>
<td>Music Video Production</td>
<td>2</td>
</tr>
</tbody>
</table>

**Consult guides available in Counseling Centers for specific general education and required grades.**
R/TV 36AD Broadcast News Production (F, SP) 3:3
R/TV 40AD Performance Before a Camera (S) 2:2
°R/TV 70AD Work Experience Issues-Radio/Television (F, SP) 1
°R/TV 71/73AD Work Experience (F, SP) 1
Subtotal Units 20

REQUIRED ELECTIVES (Select FIVE (5) units from the following):
R/TV 2 Introduction to Careers in Radio and Television (F) 2
R/TV 6 Critical Television Viewing (F) 3
R/TV 12 Television Lighting (INF) 2
R/TV 14AD Electronic Field Production and Editing (F, SP) 2
R/TV 15AC Advanced Television Production (INF) 2
R/TV 17AD Special Projects in Television (INF) 1
R/TV 21 Radio Production (S) 3
R/TV 30AD Broadcast News Writing (INF) 1.5
R/TV 34AD Music Video Production (2 semesters required) 2:2
R/TV 36AD Broadcast News Production (F, SP) (2 semesters required) 3:3
R/TV 40AD Performance Before a Camera (S) 2
°R/TV 70AD Work Experience Issues-Radio/Television (F, SP) 1
°R/TV 71/73AD Work Experience (F, SP) 1
Subtotal Units 25

REAL ESTATE
Associate in Arts/Career Certificate
This field of concentration fulfills the course requirements students need to complete prior to taking the State Real Estate Examination for the Salesman and Brokers license. Real Estate Principles is the only class required before taking the State Salesman Examination. It also provides the required and elective classes for a Brokers license. With additional courses identified on a transfer curriculum guide for Business Administration, students can prepare for a baccalaureate degree with an option in this field. The Real Estate Career Certificate Program prepares the student for direct entry to the field of real estate brokerage, appraisal or other support services. For more departmental information call (562)938-4627 or 938-4332.

REQUIRED COURSES  UNITS
REAL 78 Real Estate Economics (F, SP) 3
REAL 80 Real Estate Principles (F, SP, S) 3
REAL 81A Real Estate Practices (SP) 3
REAL 83A Legal Aspects of Real Estate (SP) 3
REAL 85 Real Estate Appraisal (F, SP) 3
REAL 87 Real Estate Finance (F) 3
Subtotal Units 18

Select NINE (9) units from any of the following courses:
ACCTG 18 Credit & Financial Statement Analysis (SP) 3
MKTG 40 Salesmanship (F, SP) 3
REAL 84 California Mortgage Brokering & Banking (S) 3
°REAL 86 Advanced Real Estate Appraisal (F, SP) 3
°REAL 89 Real Estate Exchange 3
°REAL 92A Escrows and Land Titles (F) 3
°REAL 92B Escrows and Land Titles (F) 3
REAL 93 Real Estate Investments 3

TOTAL UNITS 40

Curriculum Guides
REAL 253 Property Management (SP) 3
REAL 254 Industrial/Commercial Real Estate 3
Work Experience & Work Experience Issues (F,SP)2-12
Subtotal Units 9
TOTAL UNITS 27

RETAIL MANAGEMENT
Associate in Arts/Career Certificate
Students learn entry-level skills that deal with both the planning and implementing of sales and managing the ongoing operations in retail businesses. Students enhance their skills in retail management. For more departmental information call (562)938-4332 or 938-4661.

REQUIRED COURSES UNITS
CAOTO 15 Business Communications 3
COMIS 1A Using the IBM Microcomputer OR
CPAS 1B Using the MAC as a Tool for Learning 1
GBUS 5 Introduction to Business (F, SP, S) 3
MGMT 49A Introduction to Management (F, SP, S) 3
†MGMT 49B Introduction to Management (F, SP) 3
MGMT 80 Small Business Entrepreneurship (F, SP, S) 3
†MGMT 270AD Work Experience Issues (F, SP) 1
†MGMT 273AD Work Experience (F, SP) 3
MKTG 40 Salesmanship (F, SP) 3
MKTG 47 Essentials of Marketing (F, SP) 3
Subtotal Units 26
Select one of the following courses:
¶ACCTG 200A Introduction to Accounting (F, SP, S) 3
OR
ACCTG 1A Principles of Accounting (F, SP, S) 4
Subtotal Units 3-4
TOTAL UNITS 29-30

RECOMMENDED courses but not required:
• CBIS 6 Introduction to Information Systems (F,SP,S) 4
• LAW 18A,B Business Law (F, SP) 3
MGMT 60 Management and Organizational Behavior (F, SP) 3
MKTG 41 Advertising (F, SP) 3
SP 25 Elements of Intercultural Communication (F,SP)3

RETAIL MERCHANDISING MANAGEMENT
Associate in Arts/Career Certificate
Students learn entry-level skills that deal with both the planning and implementing of sales and managing the ongoing operations in retail businesses. Students enhance their skills in retail merchandising management. For more departmental information call (562)938-4332 or 938-4661.

REQUIRED COURSES UNITS
• CBIS 6 Introduction to Information Systems 4
MKTG 40 Salesmanship (F, SP) 3
MKTG 41 Advertising (F, SP) 3
MKTG 47 Essentials of Marketing (F, SP) 3
MGMT 49A Introduction to Management (F, SP, S) 3
†MGMT 49B Introduction to Management (F, SP) 3
FD 20 Introduction to Fashion Merchandising 3
†FD 22A Introduction to Fashion Merchandising for Profit 1.5
†FD 22B Introduction to Fashion Merchandising for Profit II 1.5
FD 220C Fashion/Merchandise Buying 3
†+ MGMT 270AD Work Experience Issues (One semester) (F, SP) 1
†+ MGMT 273AD Work Experience (One semester ) (F, SP) 3
Subtotal Units 32
Select ONE of the following courses:
ACCTG 1A Principles of Accounting (F, SP, S) 4
¶ACCTG 200A Introduction to Accounting (F, SP, S) 3
Subtotal Units 3-4
TOTAL UNITS 35-36

RECOMMENDED courses but not required:
LAW 18A-B Business Law (F, SP, S) 3:3
MKTG 42 Retailing Principles and Practices (INF) 3
MGMT 60 Management & Organizational Behavior (F, SP) 3
MGMT 80 Small Business Entrepreneurship (F,SP,S) 3
SP or ENGL Speech or English 3-6

Consult guides available in Counseling Centers for specific general education and required grades.
SCHOOL AGE CHILD CARE
Career Certificate and/or Associate in Arts
This field of concentration is designed for students preparing to teach in before-and-after-school child care programs. This certificate leads towards positions as aids, teachers, directors in before-and-after school programs or as recreation aides or leaders. For more departmental information call (562)938-4549 or 938-4454.

REQUIRED COURSES

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CDECE 45</td>
<td>Child Development D1 (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>CDECE 47</td>
<td>Human Development D1 (F, SP)</td>
<td>3</td>
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<tr>
<td>CDECE 48</td>
<td>Child, Family and Community D2 (F, SP)</td>
<td>3</td>
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<tr>
<td>CDSA 62</td>
<td>Creative Expression, School Age Children (F or SP)</td>
<td>2</td>
</tr>
<tr>
<td>CDSA 63</td>
<td>The School Age Child (F or SP)</td>
<td>3</td>
</tr>
<tr>
<td>CDSA 65</td>
<td>School Age Curriculum (F or SP)</td>
<td>3</td>
</tr>
<tr>
<td>CDSA 75</td>
<td>School Age Child Care Practicum D5 (F or SP)</td>
<td>3</td>
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<tr>
<td>CDSED 67</td>
<td>The Exceptional Child D1 (F, SP)</td>
<td>3</td>
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Select FIVE (5) units from the following:

**Early Childhood**

<table>
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<tr>
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<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CDECE 19</td>
<td>Child Nutrition &amp; Safety D7 (SP)</td>
<td>2</td>
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<tr>
<td>CDECE 55</td>
<td>Music for Children D3 (F, SP)</td>
<td>2</td>
</tr>
<tr>
<td>CDECE 56</td>
<td>Creative Movement for Young Children D5 (INF)</td>
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<tr>
<td>CDECE 59</td>
<td>Child Behavior D3 (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>+CDECE 60</td>
<td>Admin. of Child Dev. Programs D6 (F)</td>
<td>3</td>
</tr>
<tr>
<td>+CDECE 60B</td>
<td>Advanced Supervision of ECE D6 (SP)</td>
<td>3</td>
</tr>
<tr>
<td>CDECE 61</td>
<td>Child in the Multi-Cultural Classroom D3 (SP)</td>
<td>3</td>
</tr>
<tr>
<td>CDECE 70AD</td>
<td>Work Experience Issues-Child Dev.</td>
<td>1</td>
</tr>
<tr>
<td>CDECE 71AD</td>
<td>72AD OR 73AD Vocational Work Experience</td>
<td>1, 2 or 3</td>
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</table>

**Special Education**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CDSED 67</td>
<td>The Exceptional Child D1 (F, SP)</td>
<td>3</td>
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</tbody>
</table>

Subtotal Units 20

**SOCIAL SCIENCES**
Associate in Arts
This field of concentration provides the student with a general education in the principles, concepts and methodologies of various disciplines (Anthropology, Economics, Geography, Philosophy, Psychology and Sociology). In addition, courses in these areas may partially satisfy general education and major requirements for a baccalaureate degree. This Associate Degree will prepare students for career advancement and will also facilitate transfer in a related major. For more departmental information call (562)938-4477.

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>CDSED 5</td>
<td>Community Resources for Special Education (SP)</td>
<td>3</td>
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<tr>
<td>CDSED 67</td>
<td>The Exceptional Child D1 (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>+CDSED 69</td>
<td>Special Education Practicum (F, SP)</td>
<td>3</td>
</tr>
<tr>
<td>CDSED 70</td>
<td>Teaching Exceptional Students (SP)</td>
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Subtotal Units 9

**SPECIAL EDUCATION ASSISTANT**
Career Certificate and/or Associate in Arts
Students prepare to work as an assistant with children who have exceptional needs or special education needs. EMPLOYMENT OPPORTUNITIES: Teacher Assistant in School Districts, Residential Care Centers, Department of Rehabilitation, Private Agencies (salary depends upon experience, education and nature of position). Students interested in becoming teachers in public schools should consult the Transfer Information Sheet "Teacher Preparation". For more departmental information call (562)938-4549 or 938-4454.

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>SHMET 201</td>
<td>Sheet Metal 1</td>
<td>10</td>
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<tr>
<td>SHMET 202</td>
<td>Sheet Metal 2</td>
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<tr>
<td>SHMET 203</td>
<td>Sheet Metal 3</td>
<td>10</td>
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<tr>
<td>SHMET 204</td>
<td>Sheet Metal 4</td>
<td>10</td>
</tr>
<tr>
<td>WELD 400AD</td>
<td>Welding-General</td>
<td>2</td>
</tr>
</tbody>
</table>

Subtotal Units 42

**SHEET METAL**
Associate in Science/Career Certificate
Students prepare for entry-level positions in sheet metal layout, template development, fabrication and installation. For more departmental information call (562)938-3051.

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>SHMET 201</td>
<td>Sheet Metal 1</td>
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<td>SHMET 202</td>
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<td>SHMET 203</td>
<td>Sheet Metal 3</td>
<td>10</td>
</tr>
<tr>
<td>SHMET 204</td>
<td>Sheet Metal 4</td>
<td>10</td>
</tr>
<tr>
<td>WELD 400AD</td>
<td>Welding-General</td>
<td>2</td>
</tr>
</tbody>
</table>

Subtotal Units 42

**RECOMMENDED but not required:**
SHMET 220A-D Surface Development and Fabrication 5:5:5:5
WELD 400AD Welding 2
Early Childhood
CDECE 47 Human Development D1 (F, SP) 3
CDECE 59 Child Behavior D3 (F, SP) 3
COMDI 2A-B American Sign Language, Beginning (1 semester required) 3
Subtotal Units 21
Select FIVE units from the following:
CDECE 19 Child Nutrition and Safety D7 (F or SP) 2
CDECE61 Children/Multi-Cultural Classroom D3 (SP)3
*CDECE 70AD Work Experience Issues-Child Development 1
*CDECE 71AD, 72AD, 73AD Work Experience (Not to exceed 3 units) 1:2:3
COMDI 2B American Sign Language, Beginning Intermediate 3
PEPP 6AD Introduction to Principles of Adapted P.E. 2
TOTAL UNITS 26
(18 of the 26 required units must be taken at Long Beach City College.)
Recommended: A valid Red Cross First Aid Certificate

SPEECH COMMUNICATION
Associate in Arts
Students are provided with a general education in the principles, concepts and methodologies of speech performance and interpersonal communication. For more departmental information call (562)938-4790.
REQUIRED COURSES UNITS
SP 10 Elements of Public Speaking (F, SP, S) 3
SP 20 Elements of Communication (F, SP, S) 3
SP 30 Elements of Group Discussion (F, SP,S) 3
SP 60 Elements of Argumentation and Debate (F, SP) 3
Subtotal Units 12
Select a minimum of TWO (2) units from the following:
SP 19 Speech Activity: Individual Events (F, SP)1:1:1:1
SP 39AD Speech Activity: Leadership Laboratory (F, SP) 1:1:1:1
SP 69AD Speech Activity: Team Events and Debate (F, SP) 1:1:1:1
SP 99AD Special Projects in Speech (F, SP) 1:1:1:1
Subtotal Units 2
Select a minimum of SIX (6) units from the following:
SP 25 Elements of Intercultural Communication (F, SP, S) 3
SP 31 Elements of Leadership Communication (F, SP)3
SP 50 Elements of Oral Interpretation (F, SP) 3
Subtotal Units 6
TOTAL UNITS 20
RECOMMENDED courses but not required:
ANTHR 2 Cultural Anthropology 3
MGMT 49A Introduction to Management 3
MGMT 49B Introduction to Management 3
PSYCH 1 Introductory Psychology 3
PSYCH 11 Social Psychology 3
SOCI 1 Introduction to Sociology 3
SOCI 2 Modern Social Problems 3
*TART 1 Acting 1-Introduction to Acting 3

THEATRE
ACTING, TECHNICAL & GENERAL
Associate in Arts
This field of concentration is designed to provide students with an overall appreciation of theatre arts as well as an emphasis in acting and technical theatre. The A.A./Transfer programs prepare for an Associate degree and/or transfer to universities and conservatories. These courses prepare for auditions and in many cases may be acceptable as transferable units. Students are advised to consult the Transfer Curriculum Guide or official publications for the specific requirements of the intended transfer institution. For more departmental information call (562)938-4563.
GENERAL EMPHASIS - A.A.
DEGREE/TRANSFER
REQUIRED COURSES UNITS
TART 1 Acting-1 Introduction to Acting (F, SP, S) 3
TART 25 Introduction to Theatre (F, SP) 3
TART 51AD Theatre Forum (F, SP) 0.5:0.5:0.5:0.5
*TART 39AD Theatre Practicum (F, SP) 1
Subtotal Units 9
Select a minimum of FOUR (4) units from the following:
TART 49AD Rehearsal and Performance (F, SP)1:1:1:1
TART 50AD Major Production Performance (F, SP) 2:2
*TART 60AD Special Projects in Theatre Arts 1:1:1:1
*TART 75AD Summer Repertory Theatre: Performance 1:1
*TART 76AD Summer Repertory Theatre: Production (S) 1:1
Subtotal Units 4
Select a minimum of TWO (2) units from the following:
TART 40AD Stage Scenery (F, SP) 2
TART 42AD Stage Lighting (F, SP) 2
TART 43AD Costume Crafts (F, SP) 3
TART 55 Stage Make-up (F, SP) 2
Subtotal Units 2
Select a minimum of FOUR (4) units from the following:
TART 30 Introduction to Dramatic Literature (F) 3
FILM 1 Introduction to Film (F, SP) 3
*TART 32 Stage and Screen Writing (F, SP) 3
DANCE 2 Introduction to Dance (F) 1
Subtotal Units 4
TOTAL UNITS 19
ACTING EMPHASIS-A.A. DEGREE/TRANSFER
REQUIRED COURSES UNITS
TART 1 Acting-1 Introduction to Acting (F, SP, S) 3
*TART 1B Acting 1-Movement (F) OR 2
*TART 1C Acting 1-Voice (F, SP) OR 2
Consult guides available in Counseling Centers for specific general education and required grades.
†TART 1D Acting-Improvisation (INF) 2
TART 25 Introduction to Theatre (F, SP) OR 3
TART 30 Introduction to Dramatic Literature (F) 3
TART 51AD Theatre Forum (F, SP) 0.5:0.5:0.5:0.5:0.5
†TART 2 Acting 2-Technique and Characterization (F, SP) 3
†TART 3A-B Acting 3-Scene Study (SP) 3
†TART 39AD Theatre Practicum (F, SP) 1:1
TART 40AD Stage Scenery (F, SP) OR 2
TART 42AD Stage Lighting (F, SP) OR 2
TART 43AD Costume Crafts (F, SP) 2
TART 55 Stage Make-up (F, SP) 2
Subtotal Units 22
Select a minimum of FOUR (4) units from the following:
TART 49AD Rehearsal and Performance (F, SP) 1:1:1:1
TART 50AD Major Production Performance (F, SP) 2:2
TART 75AD Summer Repertory Theatre: Performance 1
Subtotal Units 4
TOTAL UNITS 26

TECHNICAL EMPHASIS - A.A. DEGREE/TRANSFER

REQUIRED COURSES UNITS
TART 1 Acting-1 Introduction to Acting (F, SP, S) 3
TART 25 Introduction to Theatre (F, SP) 3
†TART 39AD Theatre Practicum (F, SP) 1:1:1
TART 40AD Stage Scenery (F, SP) 2
TART 42AD Stage Lighting (F, SP) 2
TART 43AD Costume Crafts (F, SP) 2
TART 47 Theatre Management (SP) 3
TART 51AD Theatre Forum (F, SP) 0.5:0.5:0.5:0.5 = 2
TART 55 Stage Make-Up (F, SP) 2
Subtotal Units 14-15
LEVEL 2 - REQUIRED COURSES
†DRAFT 51B Industrial Drafting II OR 3
†ARCHT 60 Architectural Design 3
†DRAFT 60 Geometric Dimensioning & Tolerancing 3
†TEC 60 Computer Aided Design & Drafting (CADD) 3
Subtotal Units 9-14
TOTAL UNITS 23-29
NOTE: If 300 numbered versions of classes exist, they may be used toward the total units required.

TRAVEL INDUSTRY

Associate in Arts/Career Completion Certificate

This Career Certificate will prepare students for an entry-level position in a wide variety of travel/tourism career opportunities. The Travel Industry Certificate prepares students for entry-level positions who specifically want to seek employment in tourism fields such as: Airlines, Car Rentals, Hotels, Motorcoach, Rail, Theme Parks, Tour Operators, Travel Agencies, Visitor & Convention Bureaus and other related companies. With additional courses students can prepare for a Bachelor’s Degree in this field. See counseling staff for admission requirements at a university. For more departmental information call (562)938-4325 or 938-4332.

REQUIRED COURSES UNITS
THRT 210 Introduction to Travel Industry (F, SP) 3
THRT 212 Travel Career Employment (F) 3
THRT 214 Travel Marketing and Sales Techniques (F) 3
THRT 215 Travel Operations and Risk Mgmt. (SP) 3
THRT 216B-D Travel Destinations (Two Semesters) (F, SP) 3
THRT 218 Transportation and Tours (F) 3
THRT 219 Cruise Specialization (F) 3
THRT 222A-C Travel Agency Computer Operations (One semester) (F, SP) 3
THRT 224 Meeting and Special Event Planning (INF) 3
THRT 230 Travel Industry Fares and Ticketing (F, SP) 3
THRT 234 Tour Management and Escorting (F) 3
THRT 240 Travel Industry Proficiency Preparation (F) 3
†THRT 270AD Work Experience Issues
Consult guides available in Counseling Centers for specific general education and required grades.
Student prepares for an entry-level word processing position in a variety of office environments. The following elements are included in the Program Certificate: general information processing training, specific word processing application software training and information processing decision making. This certificate will prepare students for an entry-level position in a variety of business settings and will serve as a foundation for specialization. This Associate Degree will prepare students for career advancement once a certificate has been earned. For more departmental information call (562)938-3033.

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>CAOTC 31A-B</td>
<td>Microsoft Windows Operating System (Beginning, Advanced)</td>
</tr>
<tr>
<td>CAOTC 34</td>
<td>Introduction to Computers and Applications</td>
</tr>
<tr>
<td>CAOTC 41E</td>
<td>Excel for Windows (Beginning)</td>
</tr>
<tr>
<td>CAOTC 44D</td>
<td>PowerPoint for Windows (Beginning)</td>
</tr>
<tr>
<td>CAOTC 45</td>
<td>Telecommunications and the Internet</td>
</tr>
<tr>
<td>CAOTO 15</td>
<td>Business Communications</td>
</tr>
<tr>
<td>CAOTO 216</td>
<td>Proofreading Skills</td>
</tr>
<tr>
<td>CAOTO 240A</td>
<td>Word MOUS Proficient-User Test Preparation</td>
</tr>
<tr>
<td>CAOTO 240B</td>
<td>Word MOUS Expert-User Test Preparation</td>
</tr>
<tr>
<td>CAOTO 260</td>
<td>Business Telephone Procedures</td>
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<tr>
<td>CAOTO 261</td>
<td>Business English</td>
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<td>Subtotal Units</td>
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Select any FOUR (4) units from one of the following groups:

- CAOTC 39A-D Microsoft Word for the Office, Beginning (1:1:1:1)
- CAOTC 236A-D Word Processing—WordPerfect, Beginning (1:1:1:1)

Subtotal Units 4

Select any FOUR (4) units from the following:

- CAOTC 41F, J Excel for Windows (Intermediate, Advanced) (1:1)
- CAOTO 44E PowerPoint for Windows, Advanced (1)
- CAOTC 47A-B Access for Office Applications (Beginning, Intermediate) (3:3)
- CAOTC 222 Employment Testing and Interviewing (1:1:1:1)
- CAOTO 262 Professional Development for the Office (1)
- CAOTT 201 Intermediate Typing/Keyboarding (2:3)
- CAOTT 209AB Speed and Accuracy Building for Typists (1:1)

Subtotal Units 4

TOTAL UNITS 26

REQUIRED COMPETENCY: Students must earn Typewriting Certificate with a minimum typewriting speed of 50 wpm with no more than five errors on a five-minute test by the end of the program.

COMPLETION CERTIFICATES

- Basic Business Communications Certificate

REQUIRED COURSES

<table>
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<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>CAOTC39A</td>
<td>Microsoft Word for the Office, Beginning</td>
</tr>
<tr>
<td>CAOTC 44D</td>
<td>PowerPoint for Windows</td>
</tr>
<tr>
<td>CAOTO 15</td>
<td>Business Communications</td>
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<tr>
<td>CAOTO 261</td>
<td>Business English</td>
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<tr>
<td>Subtotal Units</td>
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</table>

Basic Office Computer Skills Certificate

REQUIRED COURSES

<table>
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<th>Course Name</th>
</tr>
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<tbody>
<tr>
<td>CAOTC 34</td>
<td>Introduction to Computers &amp; Applications</td>
</tr>
<tr>
<td>CAOTC 31A</td>
<td>Microsoft Windows Operating System, Beginning</td>
</tr>
<tr>
<td>CAOTC 45</td>
<td>Telecommunications and the Internet</td>
</tr>
<tr>
<td>Subtotal Units</td>
<td>7-9</td>
</tr>
</tbody>
</table>

REQUIRED COMPETENCY: Typing certificate of 25 wpm for five minutes with no more than five errors completed within the previous twelve months.

Basic Word Processing Certificate

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAOTC 39A</td>
<td>Microsoft Word for the Office, Beginning</td>
</tr>
<tr>
<td>CAOTC 39B</td>
<td>Microsoft Word for the Office, Intermediate</td>
</tr>
<tr>
<td>CAOTC 39C</td>
<td>Microsoft Word for the Office, Advanced</td>
</tr>
<tr>
<td>Subtotal Units</td>
<td>9</td>
</tr>
</tbody>
</table>

REQUIRED COMPETENCY: Typing certificate of 35 wpm for five minutes with five or fewer errors completed within the previous twelve months.

Microsoft Excel Certificate

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAOTC 41E</td>
<td>Excel for Windows-Beginning</td>
</tr>
<tr>
<td>CAOTC 41F</td>
<td>Excel for Windows-Intermediate</td>
</tr>
<tr>
<td>Subtotal Units</td>
<td>1</td>
</tr>
</tbody>
</table>

COREL WordPerfect Certificate

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAOTC 236A</td>
<td>Word Processing-WordPerfect, Beginning</td>
</tr>
<tr>
<td>CAOTC 236B</td>
<td>Word Processing-WordPerfect, Intermediate</td>
</tr>
<tr>
<td>CAOTC 236C</td>
<td>Word Processing-WordPerfect, Advanced</td>
</tr>
<tr>
<td>Subtotal Units</td>
<td>4</td>
</tr>
</tbody>
</table>

REQUIRED COMPETENCY: Typing certificate of 35 wpm for five minutes with five or fewer errors completed within the previous twelve months.
Curriculum Guides

CAOTC 41J Excel for Windows-Advanced 1
TOTAL UNITS 3
REQUIRED COMPETENCY: 80% or better accuracy on Excel MOUS Proficient-User and Expert-User prep exams.

Microsoft Word Certificate
REQUIRED COURSES   UNITS
CAOTC 39A Microsoft Word for the Office, Beginning 1
CAOTC 39B Microsoft Word for the Office, Intermediate 1
CAOTO 39C Microsoft Word for the Office, Advanced 1
CAOTO 39D Microsoft Word for the Office, Expert 1
TOTAL UNITS 4
REQUIRED COMPETENCIES: Typing certificate of 35 wpm for five minutes with five or fewer errors completed within the previous twelve months.
80% or better accuracy on Word MOUS Proficient-User and Expert-User prep exams.

Consult guides available in Counseling Centers for specific general education and required grades.
**Course Numbering System**

Course numbers relate to the design of the class and applicability to degree and transfer programs.

- **1-599**: Applicable to associate degree
- **1-99**: Transferable for at least elective credit to any college having similar courses in its lower division curriculum.
- **100-199**: Courses not intended for transfer but meeting a limited number of requirements for the AA/AS degrees.
- **200-299**: Occupational courses intended to prepare students for immediate job entry.
- **300-399**: Short term or short unit courses which parallel other 1-400 level courses.
- **400-499**: Continuing education courses in occupational fields.
- **500-599**: Vocational courses for apprentices.
- **600-699**: Self-enrichment or basic skills courses which do not carry credit and for which no grade is awarded.
- **800-899**: Courses in basic skills which have credit value that is not applicable to transfer or an associate degree.

Check with the catalog or a counselor if you have questions about course credit applicability.

Skills and performance courses in which enrollment may be repeated are designated with a fixed course number followed by letters indicating the number of times the course may be taken for credit. The following letters, when not separated by a hyphen, authorize enrollments as follows: **AB** = 2 semesters, **AC** = 3 semesters, **AD** = 4 semesters.

Courses which extend for more than one semester in length and in which each semester of the class contains different content have a fixed course number and a single letter indicating the specific semester of the course.

In some instances, a three-digit course number in the schedule of classes or on the transcript is not listed under the same course number in the catalog. In such cases, the course has been listed in the catalog with the first digit changed. For example, DRAFT205A in the catalog may be listed as 305A in the schedule of classes.

Some courses are modular courses. Such courses carry an additional designation: **M1, M2, M3, M4, etc.** Example: WELD 211M1, Introduction to Welding, is the first module of a class section listed in the schedule of classes for the primary course, WELD 211 (Introduction to Welding) as listed in this catalog.

**Distance Learning/Online Courses**

Online/teleweb courses offer students an opportunity to take a variety of courses at a time and place convenient to them. Students access these courses at home or at other off-campus sites through a personal computer with Internet access or can make use of the college’s open access labs to log on to the course(s) web site(s). These course offerings are entirely web-based and do not require students to be present on campus.

Students can enroll for these classes through the regular college registration process or by accessing the college's web site for downloading registration documents. For further information consult the schedule of classes or call (562) 938-4025.

**Televised Instruction**

Televised courses offer students an opportunity to take a variety of courses at a time and place convenient to them. Students access these courses at home or at other off-campus sites through the college’s TV/Cable station: Long Beach channel 15 and Lakewood channel 32. On-campus meetings for these courses are limited or conducted through a teleweb portion of the class. Teleweb designated courses also require access to a computer terminal with Internet access or use of the college’s open access labs to log on to the course(s) web site(s).

Students can enroll for these classes through the regular college registration process. For further information consult the schedule of classes or call (562) 938-4025.

**California Articulation Number (CAN)**

Some courses are identified with the California Articulation Number (CAN). This identifies some of the transferable, lower division, introductory (preparatory) courses commonly taught within each academic discipline on California college campuses.

Lists of courses from campuses who have qualified to participate in the CAN system are available in the Counseling offices. The system assures students that CAN courses on one participating campus will be accepted "in lieu of" the comparable CAN course on another participating campus. For example: CAN ECON 2 on one campus will be accepted for CAN ECON 2 on another participating campus. Each campus retains its own numbering system.

**Course Prerequisites, Corequisites and Recommended Preparation**

Prerequisites, corequisites and recommended preparation advice are listed with some courses in this catalog and the schedule of classes.
A **PREREQUISITE** is a course or assessment that must be completed before enrolling in the course or complete concurrently if that is permitted. Satisfactory completion of an assessment requires successful completion of the assessment process. Satisfactory completion of a prerequisite course requires a grade of CR, “C” or better.

If you have completed the prerequisite at another college or in high school, you must bring a copy of your official transcript to the Admissions and Records Office and ask for an equivalency evaluation before registering. You may challenge the prerequisite if you think you have knowledge and the ability to succeed in the course, particularly if you are drawing upon your work experience and wish to take a vocational course.

A **COREQUISITE** is a course in which you must be enrolled at the same time as the companion course. This is often the case in science classes which include a lab. Sometimes, you may be allowed to complete the corequisite course in a prior semester.

A **RECOMMENDED PREPARATION** statement is advice which the faculty want to give you.

**Challenging Course Requisites and Limitations**

Challenging course requisites and/or limitations requires written documentation that explains the alternative course work, background and/or abilities that adequately prepare you for the course. You may obtain a Requisite Challenge form from the Admissions and Records Office. Reasons for challenging requisites or limitations must include one or more of the following:

1. A requisite course is not reasonably available over a period of several semesters;
2. You believe the requisite or limitation was established in violation of a regulation or District-approved process for establishing requisites and limitations;
3. You believe the requisite or limitation is discriminatory or being applied in a discriminatory manner; or
4. You have the documented knowledge or ability to succeed in the course.

File your requisite Challenge form with the School Office or department head responsible for the course you want to enter. If space is available in the class at the time you file your challenge, you may register for the challenged course and the District will resolve your challenge within five academic calendar workdays. If your challenge is approved or the District fails to resolve your challenge in a timely manner, you may remain in the challenged class. If your challenge is denied, you will be dropped from the challenged class. If no space is available in the challenged class at the time you file, the District will resolve your challenge prior to the beginning of registration for the next term. You may register in the challenged class during your normal registration period if your challenge is approved.

**Curriculum Offerings**

The college reserves the right to determine which of the courses listed in the catalog are to be offered in each semester. Changes in curriculum or course content may occur after the printing of this catalog.

**Student Alert: Understanding Transfer Course Descriptions**

The phrase at the bottom of the course descriptions offered under "Courses of Instruction" must be read with care. Students should be aware of this key phrase, **Transferable to CSU/UC, see a counselor for limitations**. A course can transfer to the CSU or UC system as an elective part of a major and/or as general education credit. Since general education courses can be certified by LBCC when completed, students should consult pages 34-37 to see if the course is on the appropriate general education pattern. If the course is not found on the general education pattern, the course may be counted as part of the major or as an elective by the institution receiving the transfer student. It is the student's responsibility to select courses that meet his/her educational goals. The best advice for interpreting this phrase, therefore, is to see a counselor.

**Selected Topics Courses**

The descriptor “Selected Topics” applies college-wide and is issued as a curricular placeholder identified by a standard number (98, 298 or 898) and by the general heading Selected Topics (ST). These courses provide an opportunity for curriculum experimentation and innovation.

While the Selected Topics course option offers a department curricular opportunities, it also has some limitations, particularly for students.

Credits are degree applicable (ST 98, 298) as elective credits only.

Credits are transferable (ST 98) as elective credits only.

Selected Topics courses cannot be placed on a program’s curriculum guide.

Selected Topics courses cannot be used as a pre- or corequisite for another course.

Selected Topics courses cannot apply to a certificate or degree requirement.

For courses numbered 898, the units of credit may be used for workload purposes but may not be applied to any certificate or degree.

ADN 298AD, ST Application of Nursing Theory 1.0
ANTHR98A, ST Field Archaeology, 3.0
ANTHR98B, ST Archaeology Lab Methods, 3.0
CAOTC298A, ST Excel MOUS Proficient-User Exam Prep .5
CDECE298A, ST Heads Up Reading! , 1.0
CDECE898, ST Effective Foster Care Parenting, 3.0
CDECE898A, ST Computers in the EC Classroom, 1.0
CTGEN298, ST Pre-Apprenticeship Training, 5.5
ELTC 298E, ST Cisco Network V, Adv. Routing, 3.0
ENGL 98, ST Film and Literature, 3.0
ENGL 98H, ST Honors Film and Literature, 3.0
F&N 298A, ST Special Topics in Nutrition, 2.0
GEOL 898, ST Science Learning Skills, 1.0
HUMAN98, ST British Life and Culture, 3.0
LEARN98, ST Student-Athlete Success Training, 1.0
SOCIO98, ST Sociology of Latinos, 3.0
SOCSC98, ST British Life and Culture, 3.0
T&I 298, ST Intro to High Skill/High Tech Jobs, 4.0
T&I 298A, ST Women Exploring Nontraditional Careers 1.0
## CURRICULUM OFFERINGS

The courses described in this catalog may not be offered every term or every year. If a course is not offered every term you will see a note at the end of the catalog description to tell you when the course is usually offered. Check the Schedule of Classes for our current term offerings.

### ACCOUNTING

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Grading</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTG 1A</td>
<td>Principles of Accounting</td>
<td>4.0</td>
<td>ACCTG200A or one year of bookkeeping</td>
<td>Letter grade</td>
<td>Presents the analyzing, recording and summarizing procedures used in preparing balance sheets, income statements, cash flows and consolidated reports for sole proprietorships, partnerships and corporations. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ACCTG 1B</td>
<td>Principles of Accounting</td>
<td>4.0</td>
<td>ACCTG 1A</td>
<td>Letter grade</td>
<td>Accounting theory and practice for departmental, manufacturing and cost accounting; interpretation of financial statements; budgets; tax decisions; international considerations and ethics. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ACCTG 18</td>
<td>Credit and Financial Statement Analysis</td>
<td>3.0</td>
<td></td>
<td>Letter grade</td>
<td>Presents the characteristics of financial statements and accounting techniques for analysis of financial statements in reviewing for lending/credit appraisal. Emphasizes obtaining and checking credit information, real estate credit and financial statement analysis using ratios, industry averages and trend analysis. Both consumer and commercial (business) credit are studied. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ACCTG 200A</td>
<td>Introduction to Accounting</td>
<td>3.0</td>
<td></td>
<td>Letter grade</td>
<td>Provides a general understanding of accounting principles for a service enterprise using the “cash” and “accrual” methods. Course articulated with LBUSD.</td>
</tr>
<tr>
<td>ACCTG 201A</td>
<td>Fundamentals of Bookkeeping</td>
<td>3.0</td>
<td></td>
<td>Letter grade</td>
<td>Teaches systems of record keeping for payroll, data processing, cash register systems, special journals and special accounting problems with sole proprietorship, partnership and corporate considerations.</td>
</tr>
<tr>
<td>ACCTG 201B</td>
<td>Fundamentals of Bookkeeping</td>
<td>3.0</td>
<td>ACCTG 200A or 1A or 201A-B</td>
<td>Letter grade</td>
<td>Provides experience using and comparing existing commercial general ledger accounting programs.</td>
</tr>
<tr>
<td>ACCTG 205</td>
<td>Fundamentals of Tax</td>
<td>3.0</td>
<td>ACCTG 1B</td>
<td>Letter grade</td>
<td>Preparation of federal and state income tax returns for individuals. Emphasizes the practical use of tax forms and supporting schedules. Reflects changes in the Internal Revenue Code.</td>
</tr>
<tr>
<td>ACCTG 225</td>
<td>Intermediate Accounting</td>
<td>4.0</td>
<td></td>
<td>Letter grade</td>
<td>Provides an overview of the accounting process from the transaction to the statement preparation utilizing the corporate form of business organization. Emphasizes the sequential study of the various classifications and items of the balance sheet and income statement. Includes a study and analysis of the changes in the financial position of an organization.</td>
</tr>
<tr>
<td>ACCTG 228</td>
<td>Computerized Gen Ledger Account Systems</td>
<td>2.0</td>
<td></td>
<td></td>
<td>Provides experience using and comparing existing commercial general ledger accounting programs.</td>
</tr>
<tr>
<td>ACCTG 229</td>
<td>Spreadsheet Accounting</td>
<td>3.0</td>
<td>ACCTG200A or 1A or 201A-B and CBIS 2 or CAOTC35 or 41E</td>
<td>Letter grade or credit/no credit</td>
<td>Learn to automate many of the routine manual functions studied in the intro accounting course. In addition, learn to develop other practical financial templates and techniques that will be used to assist in common business decisions. Utilize the Microsoft Excel spreadsheet program.</td>
</tr>
<tr>
<td>ACCTG 230</td>
<td>Quickbooks Accounting</td>
<td>1.0</td>
<td>General familiarity and use of a PC</td>
<td>Letter grade or credit/no credit</td>
<td>Intro to basic small business accounting concepts and to a complete accounting software system. Provides hands-on exposure to the major features of the Quickbooks accounting software accompanied by instruction in the accounting concepts being employed.</td>
</tr>
</tbody>
</table>

### ADMINISTRATION OF JUSTICE

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Grading</th>
<th>Description</th>
</tr>
</thead>
</table>
| ADJUS 2 | Introduction, Administration of Justice | 3.0 | | Letter grade | Topics of discussion: the history and philosophy of the justice system as it evolved throughout the world; in-depth study of the American system and the various
sub-systems; roles and role expectations of criminal justice agents in their interrelationships in society; concepts of crime causations, punishments and rehabilitation; ethics, education and training for professionalism in the justice system. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

**ADJUS 3**  3.0 units

*Introduction to Criminal Procedures*

3 hours lecture.
Grading: letter grade.
Covers legal processes from pre-arrest through trial, sentencing and correctional procedures; review the history of case and common law, conceptual interpretations of law as reflected in court decisions, case law methodology and case research as the decisions impact upon the procedures of the justice system. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

**ADJUS 4 (CAN AJ 4)**  3.0 units

*Criminal Law*

3 hours lecture.
Grading: letter grade.
Covers historical development, philosophy of law and constitutional provisions; definitions, classification of crimes and their applications to the system of administration of justice; legal research, review of case law, methodology and concepts of law as a social force. Explores crimes against persons, property and the state as a social, religious and historical ideology. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

**ADJUS 5**  3.0 units

*Community and Human Relations*

3 hours lecture.
Grading: letter grade.
Discusses the relationship between criminal justice agents and the community, casual and symptomatic aspects of community understanding. Mistrust and lack of understanding, behavioral causes and ways to develop and maintain amicable relationships are covered. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

**ADJUS 6 (CAN AJ 6)**  3.0 units

*Introduction To Evidence*

3 hours lecture.
Grading: letter grade.
Covers origin, development, philosophy and constitutional basis of evidence, constitutional and procedural considerations affecting arrest, search and seizure, kinds and degrees of evidence and rules governing admissibility, judicial decisions interpreting individual rights and case studies viewed from a conceptual level. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

**ADJUS 8 (CAN AJ 8)**  3.0 units

*Introduction to Investigation*

3 hours lecture.
Grading: letter grade.
Covers fundamentals of investigation, techniques of crime scene search and recording, collection and preservation of physical evidence, modus operandi processes, sources of information, interview and interrogation and follow-up investigation. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

**ADJUS 10**  3.0 units

*Writing For Criminal Justice*

3 hours lecture.
Grading: letter grade.
Technique of communicating facts, information and ideas effectively in a simple, clear and logical manner in the various types of criminal justice system reports, letters, memoranda, directives and administrative reports. Emphasizes the criminal justice terminology, use of English and organization of information, note taking and report writing and presentation of testimony in court. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

**ADJUS 12**  3.0 units

*Crime and Delinquency*

3 hours lecture.
Grading: letter grade.
An intro to major types of criminal behavior, characteristics of offenders, factors which contribute to crime and delinquency. The criminal justice process: the human process of law enforcement, the courts, probation, parole and institutions, changes in crime control and treatment processes and the role of society are discussed. Not open for credit to students who have completed SOCIO12. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

**ADJUS 14**  3.0 units

*Juvenile Law and Procedures*

3 hours lecture.
Grading: letter grade.
The techniques of handling juvenile offenders and victims, prevention and repression of delinquency, diagnosis and referral, organization of community resources, juvenile law and court procedures are discussed. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

**ADJUS 16**  3.0 units

*Vice, Narcotics and Organized Crime*

3 hours lecture.
Grading: letter grade.
The interrelation of organized crime to 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 system and management of crime control units are covered. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

**ADJUS 17**  3.0 units

*Computer Use in Criminal Justice*

2 hours lecture, 3 hours laboratory
Grading: letter grade.
Intro to system strategies and computer techniques used in criminal justice agencies. Includes computer procedures, terminology and program applications that produce crime support data, database applications found in criminal justice operations, records, identification, CAD (computer assisted dispatch systems), statistics and investigations. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

**ADJUS 18**  3.0 units

*Police Field Operations*

3 hours lecture.
Courses of Instruction

Grading: letter grade.
The history and development of patrol philosophy; planning for field activities to include the functions of patrol, traffic and other preliminary investigative duties of the field officer are discussed. Emphasizes techniques for planning patrol activities, handling complaints and requests for services, mechanics of field interviews, searches and arrests, the handling of traffic related problems, civil and domestic disturbances and other community crime incidents. Transfer Status: Transferable to CSU, see counselor for limitations.

ADJUS 19 3.0 units
Fingerprint Classif & Identification
3 hours lecture.
Grading: letter grade.
Emphasizes the basics of fingerprinting, pattern interpretation, classification, sequencing and file searching based on the Henry Numerically Coded Formula and National Crime Information Center systems. Develop, photograph and lift fingerprints, prepare court displays and expert testimony. Transfer Status: Transferable to CSU, see counselor for limitations.

ADJUS 20 3.0 units
Introduction to Corrections
3 hours lecture.
Grading: letter grade.
A survey of the correctional science field. Historical development; current theory and practice; explanations of criminal behavior; the functions and objectives of the criminal justice system concerned with the institutional, probation and parole processes as they modify the offender’s behavior and career opportunities are discussed. Transfer Status: Transferable to CSU, see counselor for limitations.

ADJUS 22 3.0 units
Institutional Correction
3 hours lecture.
Grading: letter grade.
Covers the historical overview of correctional development in institutions and the community, methods of prisoner classification, functional treatments, the basics of inmate research, institutional programming and functions, post-institutional treatment and corrections as a career. Transfer Status: Transferable to CSU, see counselor for limitations.

ADJUS 24 3.0 units
Introduction to Private Security
3 hours lecture.
Grading: letter grade.
Covers fundamentals of private security, laws governing certification and the authority of private police, assessing cost effectiveness in the security of the home, industry and government contract services, the basic procedures and techniques of physical security for documents, property and facilities including the principles of theft control and preliminary investigation. Transfer Status: Transferable to CSU, see counselor for limitations.

ADJUS 25 3.0 units
Intro to Private Security Investigation
3 hours lecture.
Grading: letter grade.
Introduces the techniques and processes used in the private security sector, security investigation ethics and requirements, legal and technical aspects of investigations, information systems and techniques for specialized investigations. Transfer Status: Transferable to CSU, see counselor for limitations.

ADJUS 30 3.0 units
Risk Management/Assets Protection 1
3 hours lecture.
Grading: letter grade.
A review of new technology, techniques and statutes in the management of losses for the protection of private and public agencies. Recaps loss control techniques using insurance as a secondary form of protection and insurance controls such as bonding, workers compensation and OSHA regulations. Transfer Status: Transferable to CSU, see counselor for limitations.

ADJUS 32 3.0 units
Risk Management/Assets Protection 2
3 hours lecture.
Grading: letter grade.
The development and implementation of management policies and procedures in managing losses for private and public agencies. The problems of employee fraud and dishonesty, contingency planning for decreasing industrial accidents, the use of auditing in crime detection and the use of human actions in accident problems concerning losses are discussed. Transfer Status: Transferable to CSU, see counselor for limitations.

ADJUS 40 3.0 units
Street Gangs and Law Enforcement
3 hours lecture.
Grading: letter grade.
Provides an overview of the street gang issue: history, gang dynamics, criminal activities, identification of specific gang characteristics, cultural differences between gangs, narcotics and gang philosophy. Emphasizes law enforcement involvement, intervention, prosecution and intelligence. Transfer Status: Transferable to CSU, see counselor for limitations.

ADJUS 45 3.0 units
Drug Abuse and Law Enforcement
3 hours lecture.
Grading: letter grade.
Creates an awareness of the types of drugs, addiction, history of drug use, crime connection and general symptoms of drug usage. For those pursuing a career in law enforcement. Emphasizes identification of drug classifications and investigation of drug trafficking. Transfer Status: Transferable to CSU, see counselor for limitations.

ADJUS 61AD 1.0 unit
Defensive Tactics
0.7 hours lecture, 1.3 hours laboratory
Grading: letter grade.
Teaches protection against persons with dangerous and deadly weapons, demonstration and drill in a limited number of holds and come-alongs, restraint of prisoners and the mentally ill, fundamental use of the baton, disarming methods and transportation of prisoners. For students whose objective is a career in law enforcement. Transfer Status: Transferable to CSU, see counselor for limitations.


**Courses of Instruction**

**ADJUS 62AB**  
1.0 unit  
Firearms  
3 hours laboratory  
Grading: letter grade  
Provides a background on the legal and moral aspects of the use of firearms; develops competence and proper safety procedures and familiarizes students with special weapons, chemical agents and protective devices used in law enforcement. *Transfer Status: Transferable to CSU, see counselor for limitations.*

**ADJUS 201**  
0.5 units  
Civilian Employee Orientation  
0.9 hour lecture  
Grading: letter grade or credit/no credit  
Designed to orient civilians employed by law enforcement agencies to the policies and procedures of police organizations. Covers the various divisions within police departments and the roles employers have in the success of the organization.

**ADJUS 210**  
2.0 units  
Police Services Assistant Training  
4.4 hours lecture  
Grading: credit/no credit  
Provides the basic training necessary for the civilian position of police services assistant for local law enforcement agencies. Includes report writing, court procedures and testimony, radio codes and procedures, interview techniques, accident investigation and other skills necessary for this career. Emphasizes career preparation.

**ADJUS 231**  
2.0 units  
Jail Operations — Level 1  
6 hours lecture, 0.7 hours laboratory  
Grading: credit/no credit  
Teaches basic jail operations for in-service and pre-service students preparing for employment in jails and prisons. Stresses all phases of jail operations, including legal aspects and stress management.

**ADJUS 242**  
2.0 units  
Arrest and Firearms  
4.4 hours lecture  
Grading: credit/no credit  
Covers the laws, policies and procedures used by peace officers in making arrests and in handling firearms. Meets the requirements of Section 832 of the Penal Code. Certified by the California Commission on Peace Officer Standards and Training. Designed for those employed in security with peace officer status.

**ADJUS 250**  
16.0 units  
Basic Law Enforcement Training  
34.6 hours lecture, 18.7 hours laboratory  
Grading: credit/no credit  
Includes: basic in-service training in cooperation with the Long Beach Police Academy covering the fundamentals of law enforcement, administration of justice, criminal law, evidence, investigations, patrol procedures, traffic control, juvenile law and procedures, defensive tactics, firearms, first aid and police-community relations. Meets the requirements of the California Commission on Peace Officers Standards and Training for the basic certificate.

**ADJUS 253**  
3.0 units  
Understanding Domestic Violence  
3 hours lecture  
Grading: credit/no credit  
Offers insights into the causes, behaviors and problems associated with domestic violence. Addresses the who, what and why of this behavior. Covers the subject from the law enforcement perspective. Designed for those interested in or working in the fields of criminal justice or helping services.

**ADJUS 269**  
3.0 units  
Pre-Employment Prep For Law Enforcement  
3 hours lecture  
Grading: credit/no credit  
Provides criminal justice career information to pre-service students. Emphasizes the preparation of students to satisfactorily complete law enforcement pre-employment testing, including written exams, oral boards and physical agility requirements.

**ADJUS 270AD**  
1.0 unit  
Work Experience Issues—Admin of Justice  
1 hour lecture  
Corequisite: Enrollment in at least seven units including ADJUS271AD, 272AD or 273AD and 270AD.  
Grading: credit/no credit  
Seminar related to work experience. Discussion of work experience objectives, career goals, employment adjustment and problem areas encountered on the job.

**ADJUS 271AD**  
1.0 unit  
Work Experience — Admin of Justice  
4.1 hours laboratory  
Corequisite: Enrollment in at least seven units including ADJUS270AD and 271AD.  
Grading: credit/no credit  
An extension of vocational learning experiences through employment in work experience directly related to the occupational goal or career for which the student college program is designed. One unit of credit shall be granted for every 75 hours per semester the student is employed.

**ADJUS 272AD**  
2.0 units  
Work Experience — Admin of Justice  
8.3 hours laboratory  
Corequisite: Enrollment in at least seven units including ADJUS270AD and 272AD.  
Grading: credit/no credit  
An extension of vocational learning experiences through employment in work experience directly related to the occupational goal or career for which the student college program is designed. One unit of credit shall be granted for every 75 hours per semester the student is employed.

**ADJUS 273AD**  
3.0 units  
Work Experience — Admin of Justice  
12.5 hours laboratory  
Corequisite: Enrollment in at least seven units including ADJUS270AD and 273AD.  
Grading: credit/no credit  
An extension of vocational learning experiences through employment in work experience directly related to the occupational goal or career for which the student college program is designed. One unit of credit shall be granted for every 75 hours per semester the student is employed.

**ADJUS 408**  
1.5 units  
Plainclothes Operation  
1.4 hours lecture, 0.8 hours laboratory  
Grading: credit/no credit
### Courses of Instruction

An in-service course designed for detectives with less than two years experience. Covers surveillance, equipment, weapon techniques, search warrant preparation/service and officer-involved shootings.

**ADJUS 410**

1.5 units

**Single Officer Car Course**

1.1 hours lecture, 1.1 hours laboratory
Grading: credit/no credit

Designed to prepare peace officers to work in a one-person car. One-person searches, stops, use of force and other officer survival topics will be studied. Designed for professionals in the criminal justice system.

**ADJUS 415**

2.0 units

**Community Police Academy**

2.7 hours lecture.
Grading: credit/no credit

Designed for members of the community who wish to learn more about the local municipal police department. Includes an overview of the duties, responsibilities and personnel of the various units within the department. Includes site visits and hands-on experience with many of the activities of the department.

**ADJUS 420**

4.0 units

**Police Field Operations: Motor Trng II**

2.2 hours lecture, 6.6 hours laboratory
Grading: credit/no credit

Teaches motor officer candidates the skill points of traffic law enforcement on a police motorcycle. Covers patrol tactics, traffic problems and techniques of motorcycle riding. Designed for professionals in police agencies.

**ADJUS 425**

0.5 units

**Radar Operator**

0.6 hours lecture.
Grading: credit/no credit

Prepares a police officer to conduct radar operations and stops in traffic situations. Includes the history of radar use, basic principles of radar, legal considerations and court presentations. Designed for police professionals.

**ADJUS 445**

0.5 units

**Advanced Law Enforcement Training**

0.6 hours lecture.
Prerequisite: ADJUS250
Grading: credit/no credit

Advanced education and training for experienced police officers in the current philosophy, policies and procedures of modern law enforcement agencies. Meets the requirements of the Commission on Peace Officers Standards and Training. Reflects changes in Penal Code and local law enforcement policy.

**ADJUS 446**

6.0 units

**Management Development**

6 hours lecture.
Grading: credit/no credit

Intro to the principles of management and techniques of leadership in a modern law enforcement agency. Designed for experienced police officers with the rank of lieutenant or above.

**ADJUS 450**

2.0 units

**Basic Police Training: Lateral Entry**

5 hours lecture, 4 hours laboratory
Grading: credit/no credit

An update of basic police training, to include data of local interest such as policies, procedures and laws for this area. Not applicable toward degree if nine units have already been given for basic training.

**ADJUS 456**

1.5 units

**Law Enforcement Team Building**

1.5 hours lecture.
Grading: credit/no credit

An intro to the principles and practices of team building in a modern urban law enforcement agency.

**ADJUS 457**

3.0 units

**Law Enforcement Instructor Development**

3.3 hours lecture.
Grading: letter grade or credit/no credit

Prepares a person to teach principles of learning, an intro to communication, task analysis, instructional objectives, lesson plans, testing and evaluation of the student. Develop skills through oral reporting and structuring of course outlines.

**ADJUS 463**

0.5 units

**Basic MP-5 Submachine Gun**

1.3 hours laboratory
Grading: credit/no credit

Designed to teach the necessary components for understanding the full use of the MP-5 submachine gun. It presents firearms safety and legal issues, history, development, assembly/disassembly, function, maintenance, proper stance, reload, malfunction and drug and armor drills, modes of fire, moving targets, firing on the move and live fire qualifications.

**ADJUS 464**

0.5 units

**Motor Officer Reclassification**

0.3 hours lecture, 2 hours laboratory
Grading: credit/no credit

Designed for recertification of police motor officers. Includes practicals and on-going traffic officer training. Meets the California Commission on Peace Officers Standards and Training guidelines for recertification.

### ALLIED HEALTH

**AH 50**

2.0 units

**Introduction to Health Care Careers**

2 hours lecture.
Grading: credit/no credit

Develop a basic knowledge of the health care field, present and future careers and common health care procedures. Transfer Status: Transferable to CSU, see counselor for limitations.

**AH 60**

3.0 units

**Medical Terminology**

3 hours lecture.
Grading: letter grade.

Develop a comprehensive medical vocabulary, including spelling, definition and pronunciation of terms related to the body systems and medical specialties. Transfer Status: Transferable to CSU, see counselor for limitations.

**AH 61**

2.0 units

**Integration of Patient Care**

1 hour lecture, 3 hours laboratory
Grading: letter grade.
Develop the fundamental aspects of interpersonal relations as related to the health technologies, as well as skills in selected patient care procedures. Designed for students in the Radiologic Technology (Medical Imaging) program. Transfer Status: Transferable to CSU; see counselor for limitations.

**AH 70** 0.5 units

*Infection Control in Health Care*

0.5 hours lecture.
Grading: letter grade.
Application of infection control/epidemiology principles in various health care settings. Includes a thorough review of federal, state and local regulations related to health care and biohazardous waste. Critical thinking is developed regarding use of supplies. Transfer Status: Transferable to CSU; see counselor for limitations.

**AH 206A** 3.0 units

*Beginning Medical Transcription*

2 hours lecture, 3 hours laboratory
Recommended Preparation: AH 60 (may be taken concurrently) and type 35 WPM.
Grading: letter grade or credit/no credit
Designed to train students for employment as medical transcriptionists in hospitals, clinics and private physicians’ office settings. Lectures, demonstrations and use of classroom dictation equipment provide practical experience.

**AH 206B** 3.0 units

*Advanced Medical Transcription*

2 hours lecture, 3 hours laboratory
Recommended Preparation: AH 206A
Grading: letter grade or credit/no credit
Enables students who completed one semester of beginning medical transcription to increase their transcribing speed while learning more advanced techniques. Focuses on practice transcription of widely varied medical specialties.

**AH 210** 1.0 unit

*Math for Medications*

1 hour lecture.
Grading: letter grade or credit/no credit
Designed to enable the student to acquire the knowledge to understand and solve various math problems basic to computing drug problems.

**AH 220** 1.5 units

*Phlebotomy*

1 hour lecture, 1.5 hours laboratory
Grading: credit/no credit
Instruction in the principles and practices of blood specimen collection. Includes theory and application of phlebotomy, capillary specimens, the CLIA regulations and the use of OSHA Guidelines.

**AH 220L** 1.0 unit

*Phlebotomy Practicum*

3 hours laboratory
Corequisite: AH 220
Grading: credit/no credit
Provides the clinical lab experience in phlebotomy required to qualify for the exam of Certified Phlebotomy Technician I. This course and AH 220 are approved as a phlebotomy program by the State of California Department of Health Services Field Laboratory Services.

**AH 221AD** 0.5 units

*Health Promotion Practicum*

1.5 hours laboratory
Prerequisite: All certification, health screening and immunizations required by local health care agencies.
Corequisite: Concurrent enrollment in a nursing and/or health technologies program or licensure as a health care practitioner.
Grading: credit/no credit
Instruction and guidance in the application of the concepts and activities of health promotion. Opportunities will be provided to assist with community programs and to develop individual programs to meet college and community needs.

**AH 222** 1.0 unit

*Intravenous Therapy*

0.5 hours lecture, 1.5 hours laboratory
Prerequisite: RT 12 and AH 61 or VOCN 286 and 290 or ADN 11B and 11BL or licensed as a radiologic technologist, vocational nurse or registered nurse.
Corequisite: Malpractice insurance, health screening exam, Tuberculosis screening, immunity to Hepatitis B and Varicella, two immunizations to MMR and a CPR certificate.
Grading: credit/no credit
Instruction and supervised practice in the concepts and techniques of intravenous therapy. Designed to meet: 1) the requirements of the California Board of Vocational Nursing and Psychiatric Technicians for “Intravenous Therapy” certifications for LVNs and 2) partially fulfills the requirements of the California Health and Safety Code Section 106985 pertaining to Radiologic Technologists.

**AH 225** 0.5 units

*Basic Arrhythmia Recognition*

0.5 hours lecture.
Prerequisite: ADN 11B and 11BL or licensed as a radiologic technologist, vocational nurse or registered nurse.
Grading: credit/no credit
Instruction in the interpretation of the single lead electrocardiogram. Includes the relationship between cardiac physiology and the development of cardiac rhythm, as well as the correlation of electrocardiogram status to patient condition and expected treatment. Designed for health care workers or students interested in the care of patients with cardiac problems. Successful completion prepares the student for the ECG component of the American Heart Association Advanced Cardiac Life Support class. Suitable for registered nurses, vocational nurses, radiologic technologists and emergency medical technicians.

**AH 260** 3.0 units

*Preparation for Medical Terminology*

3 hours lecture.
Grading: letter grade.
An intro to medical vocabulary, including spelling, definition and pronunciation of terms related to the nine body systems. May prepare student for AH 60.

**AH 276** 1.0 unit

*Health Care Law*

1 hour lecture.
Grading: letter grade.
Develop a basic understanding of health care laws, ethics and human relations.
## Courses of Instruction

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td><strong>AH 280</strong></td>
<td>Health Unit Secretary</td>
<td>2.0 units</td>
<td>2 hours lecture. Prerequisite: AH 60 (may be taken concurrently) Corequisite: AH 280L. Grading: letter grade. Prepare for an entry-level position in the health care clerical field. Practice application of basic procedures utilized by the unit secretary, including medical order transcription, chart forms and procedures, communication, supply ordering, hospital safety, legal constraints and computer application in the health care facility.</td>
</tr>
<tr>
<td><strong>AH 280L</strong></td>
<td>Health Unit Secretary, Laboratory</td>
<td>1.0 unit</td>
<td>4 hours laboratory. Prerequisite: AH 280. Grading: credit/no credit. Prepare for an entry-level position in the health care clerical field. Practice application of basic procedures utilized by the unit secretary, including medical order transcription, chart forms and procedures, communication, supply ordering, hospital safety, legal constraints and computer application in the health care facility.</td>
</tr>
<tr>
<td><strong>AH 602</strong></td>
<td>Cardio Pulmonary Resuscitation</td>
<td>0.0 units</td>
<td>0.1 hours lecture, 0.3 hours laboratory. Grading: no grade awarded. Develop basic skills in the assessment of, need for and administration of cardio-pulmonary resuscitation. Intended for persons who need this skill in their employment. Typically offered for nine hours.</td>
</tr>
</tbody>
</table>

### ANATOMY

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>ANAT 1 (CAN BIOL 10)</strong></td>
<td>Human Anatomy</td>
<td>4.0 units</td>
<td>3 hours lecture, 3 hours laboratory. Grading: letter grade or credit/no credit. The study of the structure of the human body. Provides the basic knowledge and lab skills to meet the needs of pre-nursing, physical education, physical therapy and allied majors. Dissection of a cat is required. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>ANAT 1H</strong></td>
<td>Honors Human Anatomy</td>
<td>4.0 units</td>
<td>3 hours lecture, 3 hours laboratory. Prerequisite: Qualification for the Honors Program. Grading: letter grade or credit/no credit. The study of the structure of the human body. Provides the basic knowledge and lab skills to meet the needs of pre-nursing, physical education, physical therapy and allied majors. Dissection of a cat is required. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>ANAT 41</strong></td>
<td>Anatomy &amp; Physiology</td>
<td>5.0 units</td>
<td>4 hours lecture, 3 hours laboratory. Grading: letter grade or credit/no credit. An intro to the study of the structures and functions of the human body. Stresses basic principles and recent advances and is designed primarily for students not majoring in the life sciences. Not open for credit to students who have completed or are planning to take ANAT 1 and PHYSI 1. Dissection of the fetal pig is required. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
</tbody>
</table>

### ANTHROPOLOGY

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ANTHR 1 (CAN ANTH 2)</strong></td>
<td>Physical Anthropology</td>
<td>3.0 units</td>
<td>3 hours lecture. Grading: letter grade or credit/no credit. Focuses on the evolutionary development of the human capacity for culture and its subsequent effects on human biology: the relation of people and animals; the origin and antiquity of humans; fossil humans; principles of heredity and population genetics; the synthetic theory of evolution. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>ANTHR 2 (CAN ANTH 4)</strong></td>
<td>Cultural Anthropology</td>
<td>3.0 units</td>
<td>3 hours lecture. Grading: letter grade or credit/no credit. Learn the nature, elements and development of culture, emphasizing human cultural groups throughout the world, past and present. Variations in social, economic and political customs, culture change, systems of kinship and family organization, invention, arts, language, current theories of culture and the effects of culture contact will be discussed. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>ANTHR 2H</strong></td>
<td>Honors Cultural Anthropology</td>
<td>3.0 units</td>
<td>3 hours lecture. Prerequisite: Qualification for the Honors Program. Grading: letter grade or credit/no credit. Learn the nature, elements and development of culture, emphasizing human cultural groups throughout the world, past and present. Variations in social, economic and political customs, culture change, systems of kinship and family organization, invention, arts, language, current theories of culture and the effects of culture contact will be discussed. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>ANTHR 3</strong></td>
<td>Intro to Archaeology</td>
<td>3.0 units</td>
<td>3 hours lecture. Grading: letter grade or credit/no credit. An intro to archaeology and world prehistory. The study of the prehistoric cultural and social record of Africa, Asia, the Americas and island societies. An intro to the theory, concept and methods used in the study of human prehistory. Presents the development and diverse evolution of human culture. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>ANTHR 10</strong></td>
<td>Magic, Witchcraft and Religion</td>
<td>3.0 units</td>
<td>3 hours lecture. Grading: letter grade or credit/no credit. A survey of systems of magic, witchcraft and religion from past and present societies around the world. Examines beliefs and practices in cultural settings with respect to the role of the supernatural. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
</tbody>
</table>
ANTHR 12  3.0 units
Medical Anthropology
3 hours lecture.
Grading: letter grade.
An intro course which surveys cross-cultural concepts of health, illness and healing. Specific cultural ecological adaptations are shown to strongly influence health and illness in human societies while different etiological concepts with regard to the origin of illness demonstrate a great cultural range of medical beliefs and behaviors. Among other topics, the course will examine health, illness, disease, nutrition, reproduction, culture change and modernization. Transfer Status: Transferable to CSU, see counselor for limitations.

ARCHITECTURE

ARCHT 60  8.0 units
Architectural Design
6 hours lecture, 6 hours laboratory
Recommended Preparation: One year of high school drafting or DRAFT201.
Grading: letter grade.
A beginning computer aided drafting course that uses AutoCAD 2000i and focuses on developing basic architectural skills. The student will develop basic 2D CAD production drawing skills learning the relationship between plan, section and elevation drawings and use these to produce a preliminary set of production drawings for a building. Learn to solve basic design problems of site analysis, space relationships, roof design, building aesthetics and material selection. Alternative solutions to design problems will be explored using the computer and freehand sketching techniques. The concepts of positive and negative space and the use of line, plane and volume will be used in solving architectural problems. Transfer Status: Transferable to CSU, see counselor for limitations. Course articulated with LBUSD.

ARCHT 61  4.0 units
Architectural Design
3 hours lecture, 3 hours laboratory
Recommended Preparation: One year of high school drafting or DRAFT201.
Grading: letter grade.
A beginning computer aided drafting course that uses AutoCAD 2000i and focuses on developing basic architectural skills. Develop basic 2D CAD production drawing skills learning the relationship between plan, section and elevation drawings and produce a preliminary set of production drawings for a building. Learn to solve basic design problems of site analysis, space relationships, roof design, building aesthetics and material selection. (Units and content are one-half of ARCHT 60.) Transfer Status: Transferable to CSU, see counselor for limitations. Course articulated with LBUSD.

ARCHT 62  4.0 units
Architectural Design
3 hours lecture, 3 hours laboratory
Prerequisite: ARCHT 61.
Grading: letter grade.
A beginning computer aided drafting course that uses AutoCAD 2000i and focuses on developing basic architectural skills. Learn to solve basic design problems of site analysis, space relationships, roof design, building aesthetics and material selection. Alternative solutions to design problems will be explored using the computer and freehand sketching techniques. The concept of positive and negative space and the use of line, plane and volume will be used in solving architectural problems. (Units and content are one-half of ARCHT 60.) Transfer Status: Transferable to CSU, see counselor for limitations.

ARCHT 64  8.0 units
Architectural Design
6 hours lecture, 6 hours laboratory
Prerequisite: ARCHT 60 or ARCHT 61 and 62
Grading: letter grade.
An intermediate computer aided drafting course that uses AutoCAD 2000i. Focuses on developing further the architectural 2D CAD production drawing skills learned in ARCHT60, with an intro to 3D drawing systems. Develop intermediate 2D CAD production drawings, including plan, elevation, section, roof and foundation drawings for a building. Solve intermediate design problems of site analysis (including parking), space relationships, roof design, building aesthetics, structural concepts and material selection. Structural solutions to design problems will be explored using the computer and freehand sketching techniques. The concepts of lateral forces, vertical forces and various structural systems will be introduced in solving architectural problems. 3D plan oblique drawings and details of the project will be developed. The concepts of tonal values and shade and shadows will be introduced and applied to the drawings. An opportunity to design and build a portable structure may exist in the Spring semester. Transfer Status: Transferable to CSU, see counselor for limitations.

ARCHT 65  4.0 units
Architectural Design
3 hours lecture, 3 hours laboratory
Prerequisite: ARCHT 62 or ARCHT 60
Grading: letter grade.
An intermediate computer aided drafting course that uses AutoCAD 2000i. Develop further the architectural 2D CAD production drawing skills learned in ARCHT62, with an intro to 3D drawing systems. Develop intermediate 2D CAD production drawings, including plan, section, elevation, roof and foundation drawings for a building. Learn to solve intermediate design problems of site analysis (including parking), space relationships, roof design, building aesthetics, structural concepts and material selection. Structural analysis of design problems will be explored using the computer and freehand sketching techniques. (Units and content are one-half of ARCHT64.) Transfer Status: Transferable to CSU, see counselor for limitations.

ARCHT 66  4.0 units
Architectural Design
3 hours lecture, 3 hours laboratory
Prerequisite: ARCHT 65.
Grading: letter grade.
An intermediate computer aided drafting course that uses AutoCAD 2000i. Focuses on developing further the architectural 2D CAD production drawing skills learned in ARCHT65 using the computer and freehand sketching techniques. The concepts of lateral forces, vertical forces and various structural systems will be introduced. 3D plan oblique drawings and details of the project will be developed. The concepts of tonal values, shade, and shadows will be introduced
ART 1 (CAN ART 2) 3.0 units

Art and Civilization
3 hours lecture.
Grading: letter grade or credit/no credit
Introduces the artistic heritage of western culture, prehistoric through medieval times. Emphasizes the development of art forms reflecting the socio-religious experience and aesthetic sensibilities of the historical periods covered. For art and non-art majors. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 1H (CAN ART 2) 3.0 units

Honors Art and Civilization
3 hours lecture.
Prerequisite: Qualification for the Honors Program.
Grading: letter grade or credit/no credit
Introduces the artistic heritage of western culture, prehistoric through medieval times. Emphasizes the development of art forms reflecting the socio-religious experience and aesthetic sensibilities of the historical periods covered. For art and non-art majors. Transfer Status: Transferable to UC/CSU, see counselor for limitations.
Courses of Instruction

Status: Transferable to UC/CSU, see counselor for limitations.

ART 5 3.0 units
History of Asian Art
3 hours lecture.
Grading: letter grade or credit/no credit
A comprehensive survey of Asian art traditions in which the development of painting, sculpture and architecture is examined within a context of religious and cultural backgrounds. The first half surveys the art of India, Islam and Southeast Asia; the second half surveys the art of China, Japan and Korea. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 5H 3.0 units
Honors History of Asian Art
3 hours lecture.
Prerequisite: Qualification for the Honors Program.
Grading: letter grade or credit/no credit
A comprehensive survey of Asian art traditions in which the development of painting, sculpture and architecture are examined within a context of religious and cultural backgrounds. The first half surveys the art of India, Islam and Southeast Asia; the second half surveys the art of China, Japan and Korea. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 6 3.0 units
Art on the Town/Museum Study Visits
3 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
An overview of the major historical periods in Western art. Meet for slide lectures that introduce a style and the appropriate museum or gallery collection within the Los Angeles and Orange County areas. The following meeting is a four-hour visit to the museum’s collection. Credit will be earned by completing a report or analysis of individual art works. Designed for art majors and non-majors. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 7 3.0 units
Art on the Town/Studio & Gallery Visits
3 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
Intro to the materials and techniques involved in making art through a broad survey of art styles, sources and individual artists. On alternate weeks a slide-lecture will show the steps involved in the artistic process and an intro to selected art styles and artists. On a field trip the following week, students observe the process or its product. For art majors and non-majors. Credit will be earned by completing a worksheet or analysis of selected works of art. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 8 3.0 units
Art on the Town/Special Exhibits
3 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
Part of a program which introduces students to regional and multicultural exhibits of world art not available on a continuing basis. Provides a broad-based overview on art whereby students can apply art principles, identify stylistic characteristics and recognize historical context. On alternate weeks a slide-lecture will introduce the content of the exhibit and methods of analysis. A field trip occurs the following week. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 9 3.0 units
Introduction to Art
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
A common sense approach to exploring innate creative ability, the influence of art on everyday life and how art is made. Designed for the non-art major, recommended for teaching majors. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 10 3.0 units
Art Appreciation
3 hours lecture.
Grading: letter grade or credit/no credit
An intro to the major themes and concepts that have been the source for artistic expression in the visual arts. Ideas are viewed from a thematic exploration of art to express aesthetically human wants, needs and hopes. Through lecture, visual aids and field trips, become aware of artistic ideas, media and techniques. Designed for the non-art major. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 11 3.0 units
Pre-Columbian Art
3 hours lecture.
Grading: letter grade or credit/no credit
Pre-Columbian art from Mexico, Central and South America will be explored through the study of major monuments of sculpture, architecture, ceramics, textiles and painting. The slide-lecture format will be complemented by music, films and artifacts. Includes influences of Pre-Columbian art on modern and contemporary artists. For majors and non-art majors. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 11H 3.0 units
Honors Pre-Columbian Art
3 hours lecture.
Prerequisite: Qualification for the Honors Program.
Grading: letter grade or credit/no credit
Pre-Columbian art from Mexico, Central and South America will be explored through the study of major monuments of sculpture, architecture, ceramics, textiles and painting. The slide-lecture format will be complemented by music, films and artifacts. Includes influences of Pre-Columbian art on modern and contemporary artists. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 12AD 3.0 units
Gallery and Exhibition Design
2 hours lecture, 4 hours laboratory
Recommended Preparation: ART 30 and 31
Grading: letter grade.
Intro to the basic concepts applied to art exhibitions and installation. A foundation of history, theory and criticism will acquaint students to the function of galleries and exhibits in society. Apply learning with hands-on experience, assisting in creating shows, caring for and cataloging art works, working with professional artists and installing exhibitions in the Long Beach City College Fine Arts Gallery. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 14AD 1.5 units
Beginning Drawing, Overview
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Courses of Instruction

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ART 15 (CAN ART 8)</td>
<td><strong>Beginning Drawing</strong></td>
<td>3.0</td>
<td>Intro studio experience in freehand drawing, emphasizing 1) accurate observation, shading, perspective, proportion and composition; 2) the use of these skills as a means of personal expression. <strong>Transfer Status:</strong> Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ART 16AD</td>
<td><strong>Intermediate Drawing</strong></td>
<td>3.0</td>
<td>An advanced studio experience, emphasizing the employment of personal experiences as applied to 20th Century concepts and trends. <strong>Transfer Status:</strong> Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ART 17AD</td>
<td><strong>Illustration I</strong></td>
<td>3.0</td>
<td>Intro studio course offering an opportunity to explore and develop creative attitudes, values and personal expression of these principles through the use of a variety of drawing media. <strong>Transfer Status:</strong> Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ART 18AD</td>
<td><strong>Illustration II, Rendering</strong></td>
<td>3.0</td>
<td>A study of transparent watercolor painting, its techniques, methods and tools. Includes a study of watercolor approaches, technical “hands on” investigation, criticism and proper display. Designed for both transfer art majors and for personal development. <strong>Transfer Status:</strong> Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ART 19AD</td>
<td><strong>Life Drawing</strong></td>
<td>3.0</td>
<td>Freehand drawing of the human figure emphasizing proportion, anatomy as it affects surface form and gesture. Recommended for those interested in illustration, drawing and painting and art majors interested in transferring to a university. <strong>Transfer Status:</strong> Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ART 20AD</td>
<td><strong>Life Drawing Overview</strong></td>
<td>1.5</td>
<td>Teaches the interpretation of the human figure through a wide range of media and approaches. Explore and defend a variety of drawing media and artistic points of view. <strong>Transfer Status:</strong> Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ART 22AD</td>
<td><strong>Painting Overview</strong></td>
<td>1.5</td>
<td>A study of the fundamentals of form, color and design, emphasizing the expression of these principles through the painting media. <strong>Transfer Status:</strong> Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ART 23 (CAN ART 10)</td>
<td><strong>Beginning Painting</strong></td>
<td>3.0</td>
<td>Intro studio course emphasizing fundamental techniques and concepts appropriate to the use of color and painting as a significant means of human expression. Required of all art majors. <strong>Transfer Status:</strong> Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ART 24</td>
<td><strong>Watercolor, Beginning</strong></td>
<td>3.0</td>
<td>A study of transparent watercolor painting, its techniques, methods and tools. Includes a study of watercolor approaches, technical “hands on” investigation, criticism and proper display. Designed for both transfer art majors and for personal development. <strong>Transfer Status:</strong> Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ART 25AD</td>
<td><strong>Watercolor, Advanced</strong></td>
<td>3.0</td>
<td>Intro studio course emphasizing fundamental techniques and concepts appropriate to the use of color and painting as a significant means of human expression. Required of all art majors. <strong>Transfer Status:</strong> Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ART 26AD</td>
<td><strong>Figure Painting</strong></td>
<td>3.0</td>
<td>Individual interpretation and expression of the human figure with the emphasis on painting. <strong>Transfer Status:</strong> Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ART 27AD</td>
<td><strong>Intermediate Painting</strong></td>
<td>3.0</td>
<td><strong>Transfer Status:</strong> Transferable to UC/CSU, see counselor for limitations. <strong>Transfer Status:</strong> Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
</tbody>
</table>
Courses of Instruction

ART 28AD  1.5 units
Portrait Drawing and Painting
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Development of basic skills in portrait drawing and painting. Includes pen and ink, pastels, charcoal, pencil and painting mediums. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 30 (CAN ART 16)  3.0 units
Fundamentals of Art/Volume, Plane & Form
2 hours lecture, 4 hours laboratory
Grading: letter grade or credit/no credit
Intro to three-dimensional studio experience intended as an investigation of: 1) traditional and non-traditional effects of space and volume and 2) analysis of personal and collective values applicable to the visual arts. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 31 (CAN ART 14)  3.0 units
Fundamentals of Art/Composition & Color
2 hours lecture, 4 hours laboratory
Grading: letter grade or credit/no credit
An intro, two-dimensional studio experience investigating traditional and non-traditional effects of shape, line, color, composition and analyzing personal and collective values applicable to the visual arts. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 32  3.0 units
Intermediate Design
2 hours lecture, 4 hours laboratory
Prerequisite: ART 30 or 31
Grading: letter grade or credit/no credit
A creative studio experience for the student preparing to enter a field of applied design, graphic design, product design or interior design. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 33AD  0.5 units
Exploration of Decorative Arts
2 hours lecture, 4 hours laboratory
Recommended Preparation: ART 30 and 31
Grading: letter grade or credit/no credit
Explore various craft media such as metals, wood, papier-maché, plastics, clay and others. Explore several media or focus on one. Allows students to discover their aptitude for a media or technique with minimal accumulation of unit load. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 34AD  3.0 units
Applied Design/Crafts
2 hours lecture, 4 hours laboratory
Grading: letter grade or credit/no credit
An intro to several different types of media in the design and creation of decorative and/or useful objects. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 35AD  3.0 units
Jewelry/Metalsmithing 1
2 hours lecture, 4 hours laboratory
Recommended Preparation: ART 30 and 31
Grading: letter grade or credit/no credit
Introduces the aesthetic use of gold, silver, copper, brass and semi-precious stones in jewelry making from both a historical and contemporary point of view. Emphasizes gaining knowledge, confidence and skills to execute one’s own designs. Transfer Status: Transferable to CSU, see counselor for limitations.

ART 36AD  3.0 units
Jewelry/Metalsmithing 2
2 hours lecture, 4 hours laboratory
Prerequisite: One semester of ART 35AD
Grading: letter grade or credit/no credit
The exploration of wax-working, casting and mold making as methods for creating jewelry and objects, emphasizing use of inexpensive, available tools and methods. Transfer Status: Transferable to CSU, see counselor for limitations.

ART 37AD  3.0 units
Jewelry/Metalsmithing 3
2 hours lecture, 4 hours laboratory
Prerequisite: One semester of ART 35AD
Grading: letter grade or credit/no credit
Intro to the basic hollowware techniques of die-forming, raising, chasing and repoussé. Transfer Status: Transferable to CSU, see counselor for limitations.

ART 38AD  3.0 units
Jewelry/Metalsmithing 4
2 hours lecture, 4 hours laboratory
Prerequisite: One semester of ART 35AD
Grading: letter grade or credit/no credit
A special studies approach to metal focusing upon areas introduced in ART 35AD, 36AD, 37AD. Transfer Status: Transferable to CSU, see counselor for limitations.

ART 41  3.0 units
Introduction to Computergraphics
2 hours lecture, 4 hours laboratory
Grading: letter grade or credit/no credit
Will demystify computer graphics for beginners and give a broad overview of the concepts involved in selected computer art programs. Explains computer terminology, the disk system, keyboard and art related peripheral devices, such as the joystick, mouse and light pen. Learn on computers and complete hands-on projects in both class and lab. For both art and non-art majors. Required for entry into all other computer art and design courses. Transfer Status: Transferable to CSU, see counselor for limitations.

ART 42  3.0 units
Intro/3D & Multimedia Computergraphics
2 hours lecture, 4 hours laboratory
Prerequisite: ART 41
Recommended Preparation: ART 30
Grading: letter grade or credit/no credit
An intro to computer graphic production for the areas of three dimensional and time based electronic media. Emphasizes the unique characteristics of three and four dimensional realities as presented in electronic media. Explore and exploit the distinct visual characteristics of virtual dimensions in both time and space. Transfer
### Courses of Instruction

#### ART 43AD  3.0 units
**Computer Art for the Internet**  
2 hours lecture, 4 hours laboratory  
Prerequisite: ART 41  
Recommended Preparation: ART 31  
Grading: letter grade or credit/no credit  

Learn to apply computer graphics to a variety of communication needs. Principles for using colors and forms for charts, graphs, maps, corporate identification, illustrations and advertisements in electronic media will be demonstrated. Apply those principles to the creation of actual projects through hands-on use of a variety of software applications and delivery systems. For art and non-art majors.  
Transfer Status: Transferable to CSU, see counselor for limitations.

#### ART 44AD  3.0 units
**Computer Art for Graphic Design**  
2 hours lecture, 4 hours laboratory  
Prerequisite: ART 41  
Recommended Preparation: ART 31  
Grading: letter grade or credit/no credit  

Learn to use the computer in graphic design, electronic "paste-up" and electronic "layout." Learn the basics of computer graphic design in preparation of visual communications for both digital and print media. By completing assignments on the computer, students will create pages of text and graphics. Products will be created through the use of a variety of input and output devices. Also explore a variety of network delivery systems. For art and non-art majors.  
Transfer Status: Transferable to CSU, see counselor for limitations.

#### ART 45AD  3.0 units
**Computer Art for Drawing and Painting**  
2 hours lecture, 4 hours laboratory  
Prerequisite: ART 41  
Recommended Preparation: ART 31  
Grading: letter grade or credit/no credit  

Learn to develop visual thinking electronically which will manifest itself as personal expression through hands-on manipulation of the computer as a creative tool. Explore the possibilities of electronic image creation, alteration and merging in electronic studio drawing and painting exercises that make comparisons and contrasts to traditional studio methods.  
Transfer Status: Transferable to UC/CSU, see counselor for limitations.

#### ART 46AD  3.0 units
**Computer Art & Design in 3D Modeling**  
2 hours lecture, 4 hours laboratory  
Prerequisite: ART 41  
Recommended Preparation: ART 31 and 42  
Grading: letter grade or credit/no credit  

Electronically construct three-dimensional objects using perspective, manipulated light sources and the logical development of multiple views. Learn to deal with abstract objects and extrapolate spatial information from 3-D computer graphics. Specific relationships will be made between electronic modeling and the visual arts, in particular, sculpture, ceramics, 3-D graphics, jewelry and metalsmithing.  
Transfer Status: Transferable to CSU, see counselor for limitations.

#### ART 47AD  3.0 units
**Computer Art and Design for Multimedia**  
2 hours lecture, 4 hours laboratory  
Prerequisite: ART 41  
Recommended Preparation: ART 31 and 42  
Grading: letter grade or credit/no credit  

Learn how to electronically create stand alone, as well as interactive multimedia projects. An intro to the skills of producing and developing digital multimedia. Learn the theories of computer-based animation and interactive multimedia design.  
Transfer Status: Transferable to CSU, see counselor for limitations.

#### ART 48AD  3.0 units
**Computer Art & Design for TV and Video**  
2 hours lecture, 4 hours laboratory  
Prerequisite: ART 41  
Recommended Preparation: ART 31  
Grading: letter grade or credit/no credit  

Learn to develop electronic visual images for broadcast requirements on the computer—symbols, pictographs and illustrations with typed titles, brief spot animation of a concept or demonstration of action. Create PSA's (public service announcements) and station-break formatted art. Also, create program title and credit displays.  
Transfer Status: Transferable to CSU, see counselor for limitations.

#### ART 49AD  3.0 units
**Special Studies-Computer Art and Design**  
2 hours lecture, 4 hours laboratory  
Prerequisite: ART 41  
Recommended Preparation: Four courses from ART 43AD, 44AD, 45AD, 46AD, 47AD and 48AD  
Grading: letter grade or credit/no credit  

For fine arts majors in computer art and design; will allow students to develop personal skills for their chosen specialty in the computer art field. Work independently on projects formulated with faculty assistance.  
Transfer Status: Transferable to CSU, see counselor for limitations.

#### ART 50 (CAN ART 6)  3.0 units
**Ceramics I**  
2 hours lecture, 4 hours laboratory  
Prerequisite: ART 30 and 31  
Grading: letter grade or credit/no credit  

A creative experience in the visual arts using clay as a medium of expression. Explore basic hand and wheel methods of forming, decorating and glazing three-dimensional ceramic forms and develop a personal awareness and appreciation of the creative process.  
Transfer Status: Transferable to UC/CSU, see counselor for limitations.

#### ART 51AD  3.0 units
**Ceramics II**  
2 hours lecture, 4 hours laboratory  
Prerequisite: ART 50  
Grading: letter grade or credit/no credit  

A creative experience in the visual arts using clay as a medium of expression. Apply knowledge gained in the first course (Ceramics I) to solve more complex problems of forming, decorating and glazing three-dimensional ceramic forms. Expand aesthetic judgment, skills and confidence.  
Transfer Status: Transferable to UC/CSU, see counselor for limitations.
ART 52AD 3.0 units
Ceramics III
2 hours lecture, 4 hours laboratory
Prerequisite: ART 31
Grading: letter grade or credit/no credit
Develop a more intensive knowledge and ability to produce well-designed ceramic objects. Emphasizes utilitarian forms, related clay, glaze and firing technology, aesthetic judgment, problem-solving capabilities, skills and knowledge of materials. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 53AD 3.0 units
Ceramics IV
2 hours lecture, 4 hours laboratory
Prerequisite: ART 52AD
Grading: letter grade or credit/no credit
Develop a more intensive knowledge and ability to produce well-designed ceramic forms. Emphasizes nonutilitarian form, related clay, glaze and firing technology, aesthetic judgment, problem-solving capabilities, skills and knowledge of materials. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 55AD 3.0 units
Introduction to Graphic Design
2 hours lecture, 4 hours laboratory
Prerequisite: ART 31
Grading: letter grade or credit/no credit
An overview of graphic design and its various components, including typography, illustration, photography and layout. The history of graphic design, as well as the relationship and differences among advertising agencies, designers, publishers, typographers and printers. Develop skills in basic inking and tool use while enhancing one’s ability to coordinate type, image and symbol. Transfer Status: Transferable to CSU, see counselor for limitations.

ART 56AD 1.5 units
Lettering & Typography
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Lettering, its uses and characteristics, as well as the study of typographic form. Transfer Status: Transferable to CSU, see counselor for limitations.

ART 60 (CAN ART 12) 3.0 units
Beginning Sculpture
2 hours lecture, 4 hours laboratory
Recommended Preparation: ART 30
Grading: letter grade or credit/no credit
Structured to give students an understanding of the formal elements of sculpture while investigating various materials and processes. Both additive and subtractive methods are explored using clay, plaster and wood, as well as non-traditional materials. Designed to allow students to investigate form, space, material and content through selected projects, readings, field trips, slides and discussions. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 61AD 3.0 units
Intermediate Sculpture
2 hours lecture, 4 hours laboratory
Prerequisite: ART 60
Grading: letter grade or credit/no credit
An intro to a subjective approach to sculpture emphasizing the development of ideas in relation to personal/individual intent. Investigates both historical and contemporary sculpture. May include carving, casting, modeling, welding, fiberglass lamination, installation and non-studio pieces. Emphasizes the advancement of technical and material skills. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 62AD 3.0 units
Metal Fabrication Sculpture
2 hours lecture, 4 hours laboratory
Prerequisite: ART 60
Recommended Preparation: ART 30
Grading: letter grade or credit/no credit
Increase understanding of contemporary sculpture through welding, forging and mixed media combination of materials. Learn oxy-acetylene, arc and heli-arc welding, basic forging, bending and cold joint techniques. Transfer Status: Transferable to CSU, see counselor for limitations.

ART 63AD 3.0 units
Metal Casting Sculpture
2 hours lecture, 4 hours laboratory
Prerequisite: ART 60
Recommended Preparation: ART 30
Grading: letter grade or credit/no credit
Learn contemporary sculpture ideas through traditional, industrial and new metal casting processes. Learn styrofoam/greensand, standard investment and ceramic shell for casting aluminum and bronze. Instruction on surfacing includes patina, stains, paints and varnish application. Transfer Status: Transferable to CSU, see counselor for limitations.

ART 64AD 1.5 units
Sculpture: Carving
1 hour lecture, 2 hours laboratory
Prerequisite: ART 60
Recommended Preparation: ART 30
Grading: letter grade or credit/no credit
Exploration of representational, abstract and non-objective approaches to carved sculpture in clay, plaster, wood, soap stone or alabaster. Learn proper use of hand tools and related techniques. Development of creativity with carved three-dimensional forms. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 70AD 3.0 units
Printmaking, Silkscreen
2 hours lecture, 4 hours laboratory
Grading: letter grade or credit/no credit
Intro to the graphic art of printmaking as a means of personal expression. Includes relief prints and serigraphy; glue stencil, paper stencil and photolithography. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ART 71AD 3.0 units
Printmaking, Intaglio
2 hours lecture, 4 hours laboratory
Grading: letter grade or credit/no credit
Intro to the graphic art of printmaking as a means of personal expression. Includes etching, engraving, multicolor plates, viscosity, aquatint, photo etching and related methods and mixed media techniques. Transfer
Courses of Instruction

Status: Transferable to UC/CSU, see counselor for limitations.

**ART 72AD**  
Printmaking, Advanced  
3.0 units  
2 hours lecture, 4 hours laboratory  
Prerequisite: One semester of ART 70AD and 71AD.  
Grading: letter grade or credit/no credit  
Special studies in advanced techniques and/or exploration of collagraphy, photo-silkscreen, etching, intaglio, serigraphy and woodcut. Develop and pursue individualized projects and/or gain competence in edition printing, darkroom techniques and mixed media.  
Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**ART 73AD**  
Introduction to Printmaking  
1.5 units  
1 hour lecture, 2 hours laboratory  
Grading: letter grade or credit/no credit  
An intro to the graphic art of printmaking as a means of personal expression. Activities include serigraphy, photo-silkscreen and collagraph printing.  
Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**ART 74AD**  
Advanced Printmaking Overview  
1.5 units  
1 hour lecture, 2 hours laboratory  
Recommended Preparation: One semester of ART 73AD  
Grading: letter grade or credit/no credit  
Special studies in advanced techniques and/or exploration of etching, intaglio, serigraphy, photo techniques, woodcut, monoprint and collagraph. Develop and pursue individualized projects and/or gain competence in edition printing, darkroom techniques and mixed media.  
Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**ART 80 (CAN ART 18)**  
Elements of Photography  
3.0 units  
3 hours lecture  
Grading: letter grade or credit/no credit  
Intro survey of photography as a creative, personal form of expression. Learn to operate a camera, select equipment, choose appropriate subject matter and take and evaluate the final product, the photo.  
Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**ART 81AD**  
Introduction to Fine Art Photography  
3.0 units  
2 hours lecture, 4 hours laboratory  
Prerequisite: PHOT 31AB  
Recommended Preparation: ART 31  
Grading: letter grade or credit/no credit  
Intro to fine art photography as a creative, personal form of expression. Learn the methods and concepts of fine art photography in both their historical context and current practice. Learn to evaluate photography in the context of fine art.  
Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.

**ART 90AD**  
Special Projects In Art  
1.0 unit  
1 hour lecture, 2 hours laboratory  
Grading: letter grade or credit/no credit  
Exploration and development on an individual basis of special projects within the art field.  
Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**ART 91AD**  
Studio Projects in Art  
2.0 units  
2 hours lecture, 4 hours laboratory  
Grading: letter grade or credit/no credit  
Exploration and development on an individual basis of studio projects within the field of art.  
Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**ART 96AD**  
Fiber, Beginning  
1.5 units  
1 hour lecture, 2 hours laboratory  
Grading: letter grade or credit/no credit  
An intro studio course in fiber techniques, including papermaking, bookmaking, dyeing, basketry and three-dimensional structures.  
Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**ART 97AD**  
Fiber, Advanced  
1.5 units  
1 hour lecture, 2 hours laboratory  
Grading: letter grade or credit/no credit  
Fiber is viewed as two-and three-dimensional art forms. A non-loom approach method of instruction is used to include spinning, dyeing, felt making, twining, wrapping, needle weaving, basketry and papermaking. Projects include sculpture, wearables and wall hangings.  
Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**ART 292**  
Professional Skills for Artists  
3.0 units  
2 hours lecture, 4 hours laboratory  
Recommended Preparation: Completion of at least three studio art courses  
Grading: letter grade or credit/no credit  
Emphasizes developing skills and presenting artwork as a professional artist or art director. Skills and topics, covered in an applied approach, include photographing artwork, matting, framing, resume writing, creating and shaping artwork, art competitions, exhibitions, criticism, publicity and slide presentations. Topics include ethics, law, professionalism and grant-writing.

**ART 600**  
Two-Dimensional Art Exploration  
0.0 units  
1 hour lecture, 2 hours laboratory  
Grading: no grade awarded  
Develop, improve and explore visual art skills and philosophy related to two-dimensional art work, such as drawing, painting, perspective, rendering, watercolor, life drawing and design. Designed for senior citizens.

**ART 601**  
Three-Dimensional Art Exploration  
0.0 units  
1 hour lecture, 2 hours laboratory  
Grading: no grade awarded  
Develop, improve and explore skills and philosophy related to three-dimensional art work, such as sculpture, 3-D design, ceramics, jewelry and metalsmithing, applied design, weaving and fiber. Designed for senior citizens.

**ART 602**  
Specialty/Technical Art Exploration  
0.0 units  
1 hour lecture, 2 hours laboratory  
Grading: no grade awarded
Develop, improve and explore skills and philosophy related to process-oriented art work, such as printmaking, photo and computer art and design. Designed for senior citizens.

ART 603 0.0 units
Exploration in Art History
3 hours lecture.
Grading: no grade awarded
Explore the historical, cultural, and/or thematic aspects of the visual arts through lecture, slides, films and/or museum visits. Designed for senior citizens.

ASTRONOMY

ASTR 1 3.0 units
Elementary Astronomy
3 hours lecture.
Grading: letter grade or credit/no credit
Intro to astronomy, the appearance and physical nature of the sun and the planetary system, stars and stellar systems, the formation and evolution of the universe and its contents. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ASTR 1L 2.0 units
Astronomy Laboratory
1 hour lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Learn about observational instruments and techniques and the collection and interpretation of astronomical data. ASTR 1 with 1L meets a physical science lab science requirement. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

AUTOBODY REPAIR

ABODY 211 9.0 units
Intro to Basic Auto Body Repair
5 hours lecture, 13.3 hours laboratory
Grading: letter grade or credit/no credit
Intro to basic auto body repair principles involving theory, safety practices, gas welding and brazing, hot shrinking, hammer welding, grinder, metal finishing, body solder, plastic body filler, primer and spray gun techniques.

ABODY 212 9.0 units
Minor Collision Repair
5 hours lecture, 13.3 hours laboratory
Recommended Preparation: ABODY211
Grading: letter grade or credit/no credit
Intro to basic auto body alignment and frame straightening, theory, safety practices, arc welding, frame construction, alignment, hydraulic body jacks, sectioning and frame dozer.

ABODY 213 9.0 units
Major Collision Repair
5 hours lecture, 13.3 hours laboratory
Recommended Preparation: ABODY212
Grading: letter grade or credit/no credit
Includes: safety practices, gas welding and brazing, leading and soldering, hydraulic equipment, metal finishing, upsetting, external and internal body construction and assembly, frame straightening techniques, basic electrical systems and special projects.

ABODY 214 9.0 units
Painting Techniques
5 hours lecture, 13.3 hours laboratory
Recommended Preparation: ABODY213
Grading: letter grade or credit/no credit
Includes: safety practices, mixing and matching colors, preparation and masking, lacquers and enamels, refinishing, nomenclature, sealing, spray painting equipment, spray painting, frame straightening techniques and special projects.

ABODY 419AD 4.0 units
Auto Body Repair
2 hours lecture, 6 hours laboratory
Grading: letter grade or credit/no credit
Auto body and chassis repairing, spray painting procedures and safety practices.

AUTOMOTIVE MECHANICS

AMECH 231 9.0 units
Engine Repair & Automatic Transmissions
5 hours lecture, 13.3 hours laboratory
Recommended Preparation: High school auto or AMECH421
Grading: letter grade or credit/no credit
Covers safety, tools and fasteners, nomenclature, theory, demonstrations and “hands on” instruction in automobile engines and transmissions. The first six weeks will cover engine repair and the remainder of the class will cover automatic transmissions.

AMECH 232 9.0 units
Brakes and Steering Systems
5 hours lecture, 13.3 hours laboratory
Recommended Preparation: High school auto or AMECH421
Grading: letter grade or credit/no credit
Covers safety, tools and equipment, related math and theory, drum and disc brakes, suspension systems, wheels, tires, steering systems, wheel balancing, front-end alignment, differentials, U-joints and clutches.

AMECH 233 9.0 units
Auto Electrical and Fuel Systems
5 hours lecture, 13.3 hours laboratory
Recommended Preparation: High school auto or AMECH421
Grading: letter grade or credit/no credit
Covers testing and repair of automotive charging and starting systems, ignition systems (conventional and transistorized), fuel systems (carburetion and fuel injection) and oscilloscopes operation (conventional and computer assisted). Preparation for the ASE (Automotive Service Excellence) test.

AMECH 236 9.0 units
Automotive Emission & Computer Control
5 hours lecture, 13.3 hours laboratory
Recommended Preparation: AMECH233
Grading: letter grade or credit/no credit
Covers the California State approved “Clean Air Course” and the operation and testing of the emission and computer control systems. Preparation for the Automotive Service Excellence (ASE) and the State Emission Control License test.
### Courses of Instruction

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Requisites</th>
</tr>
</thead>
</table>
| AMECH 270AD| Work Experience Issues — Automotive              | 1.0   | Corequisite: Enrollment in at least seven units including AMECH270AD and 271AD.  
Grading: letter grade or credit/no credit  
An extension of vocational learning experiences through employment in work experience directly related to the auto industry. One unit of credit shall be granted for every 75 hours per semester of paid work or every 60 hours of volunteer work for a maximum of 12 units. |
| AMECH 271AD| Work Experience — Automotive                     | 1.0   | Corequisite: Enrollment in at least seven units including AMECH271AD and 272AD.  
Grading: letter grade or credit/no credit  
An extension of vocational learning experiences through employment in work experience directly related to the auto industry. One unit of credit shall be granted for every 75 hours per semester of paid work or every 60 hours of volunteer work for a maximum of 12 units. |
| AMECH 272AD| Work Experience — Automotive                     | 2.0   | Corequisite: Enrollment in at least seven units including AMECH270AD and 272AD.  
Grading: letter grade or credit/no credit  
An extension of vocational learning experiences through employment in work experience directly related to the auto industry. One unit of credit shall be granted for every 75 hours per semester of paid work or every 60 hours of volunteer work for a maximum of 12 units. |
| AMECH 273AD| Work Experience — Automotive                     | 3.0   | Corequisite: Enrollment in at least seven units including AMECH270AD and 272AD.  
Grading: letter grade or credit/no credit  
An extension of vocational learning experiences through employment in work experience directly related to the auto industry. One unit of credit shall be granted for every 75 hours per semester of paid work or every 60 hours of volunteer work for a maximum of 12 units. |
| AMECH 280A | Special Problems: Automotive                     | 2.0   | Corequisite: Current enrollment in one or more of the following courses: AMECH231, 232, 233, 234  
Grading: letter grade or credit/no credit  
Provides additional information that will apply to a specific make vehicle. |
| AMECH 280B | Special Problems: Automotive                     | 2.0   | Corequisite: Enrollment in one or more of the following courses: AMECH231, 232, 233, 234  
Grading: letter grade or credit/no credit  
Provides additional information that will apply to a specific make vehicle. |
| AMECH 280C | Special Problems: Automotive                     | 2.0   | Corequisite: Enrollment in one or more of the following courses: AMECH231, 232, 233, 234  
Grading: letter grade or credit/no credit  
Provides additional information that will apply to a specific make vehicle. |
| AMECH 280D | Special Problems: Automotive                     | 2.0   | Corequisite: Enrollment in one or more of the following courses: AMECH231, 232, 233, 234  
Grading: letter grade or credit/no credit  
Provides additional information that will apply to a specific make vehicle. |
| AMECH 421  | Auto Mechanics 1                                 | 3.0   | Corequisite: Enrollment in at least seven units including AMECH270AD and 272AD.  
Grading: letter grade or credit/no credit  
An intro to the principles of the operation of the modern auto. Provides practical experience in maintenance and repair at the owner-operator level. Consumer awareness is emphasized.  
Course articulated with LBUSD. |
| AMECH 424  | Auto Air Conditioning                            | 3.0   | Corequisite: High school auto mechanics or AMECH421  
Grading: letter grade or credit/no credit  
Covers tools and equipment, refrigeration fundamentals, electrical systems, air distribution, automatic air conditioning, installation, maintenance and repair of auto air conditioning. |
| AMECH 426  | Clean Air Car                                    | 3.5   | Corequisite: High school auto mechanics or AMECH421  
Grading: letter grade or credit/no credit  
Prepares the mechanic to take a state exam and obtain a license to work as a smog mechanic in the statewide Motor Vehicle Pollution Control Program. A prerequisite for admission into the state-administered inspection and Maintenance (I/M) Training. |
| AMECH 430  | Auto Wheel Alignment                             | 6.0   | Corequisite: High school auto mechanics or AMECH421  
Grading: letter grade or credit/no credit  
Covers the theory, design and operation of chassis units affecting stability, power flow, suspension and steering in autos and small trucks. Includes testing, trouble diagnosis and modern methods of servicing. Preparation for taking the ASE (Automotive Service Excellence) test is emphasized. |
| AMECH 432  | Automotive Brake Systems                         | 6.0   | Corequisite: High school auto mechanics or AMECH421  
Grading: letter grade or credit/no credit  
Covers the theory, design and operation of the standard, disc and anti-lock brake systems common to most autos and small trucks. Includes testing, diagnosing and modern methods of servicing the brake system. |
| AMECH 434  | Engine Repair                                    | 6.0   | Corequisite: High school auto mechanics or AMECH421  
Grading: letter grade or credit/no credit  
Covers the theory, design and operation of the standard, disc and anti-lock brake systems common to most autos and small trucks. Includes testing, diagnosing and modern methods of servicing the brake system. |
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Hours Lecture</th>
<th>Hours Laboratory</th>
<th>Recommended Preparation</th>
<th>Grading</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMECH 436</td>
<td>Automatic and Standard Transmissions</td>
<td>6.0</td>
<td>5</td>
<td>3</td>
<td>High school auto or AMECH421</td>
<td>letter grade or credit/no credit</td>
<td>Instruction in the operation of tools common to engine rebuilding and an in-depth study of engine design and theory of construction, testing, troubleshooting and rebuilding an engine block. Prepare to take the ASE (Automotive Service Excellence) test.</td>
</tr>
<tr>
<td>AMECH 438</td>
<td>Auto Emission Controls</td>
<td>6.0</td>
<td>5</td>
<td>3</td>
<td>High school auto mechanics or AMECH421</td>
<td>letter grade or credit/no credit</td>
<td>Covers the operation and testing of computer-controlled oxygen feedback systems and use of the California State approved Test Systems Analyzer (TAS).</td>
</tr>
<tr>
<td>AMECH 440</td>
<td>Automotive Computer Systems</td>
<td>6.0</td>
<td>5</td>
<td>3</td>
<td>AMECH421</td>
<td>letter grade or credit/no credit</td>
<td>Covers the operation and testing of computer controlled oxygen feedback systems, the use of the California State Approved Test Systems Analyzer (TAS) and the use of computer-assisted auto systems analyzers. Prepare to take the ASE (Automotive Service Excellence) and the California state emission control license tests.</td>
</tr>
<tr>
<td>AMECH 442</td>
<td>Automotive Fuel Systems</td>
<td>6.0</td>
<td>5</td>
<td>3</td>
<td>AMECH421</td>
<td>letter grade or credit/no credit</td>
<td>Covers the operation and testing of auto fuel systems (carburetion and fuel injection) and operation of auto oscilloscopes for testing purposes. Prepare to take the ASE (Automotive Service Excellence) test.</td>
</tr>
<tr>
<td>AMECH 444</td>
<td>Automotive Electrical Systems</td>
<td>6.0</td>
<td>5</td>
<td>3</td>
<td>AMECH421</td>
<td>letter grade or credit/no credit</td>
<td>Covers the testing and repair of auto charging and starting systems. Auto ignition systems (conventional and transistorized) and operation of auto oscilloscopes (conventional and computer assisted) are covered. Prepare to take the ASE (Automotive Service Excellence) test.</td>
</tr>
<tr>
<td>AMECH 480</td>
<td>Introduction to Electric Vehicles</td>
<td>3.0</td>
<td>2</td>
<td>3</td>
<td></td>
<td>letter grade or credit/no credit</td>
<td>Increases student skill and knowledge and updates the student in the area of their choice regarding electric vehicle technology. Emphasizes OEM (original equipment manufacturer) electric vehicle conversion programs and dedicated OEM EVs, continued EV component knowledge, hybrid-electric vehicles and advances in battery and charger technologies showing sensitivity to the diversity and backgrounds of the students. Appropriate safety related instructions will be included in each segment.</td>
</tr>
<tr>
<td>AMECH 483</td>
<td>Electric Vehicle Projects</td>
<td>3.5</td>
<td>2</td>
<td>1.5</td>
<td></td>
<td>letter grade or credit/no credit</td>
<td>Alternative fueled vehicles are the way of the future. Covers theory of operation, installation, testing, trouble-shooting and repair of gaseous fuels with a focus on natural gas. Includes both dedicated and after-market systems. Gasoline and diesel powered vehicles are discussed with an emphasis on computer- controlled fuel injection. Current trends in the industry and preparation for taking the ASE (Automotive Service Excellence) F1 test are included.</td>
</tr>
<tr>
<td>AMECH 490</td>
<td>Introduction to Alternative Fuels</td>
<td>3.5</td>
<td>3</td>
<td>1.5</td>
<td></td>
<td>letter grade or credit/no credit</td>
<td>Alternatives to gasoline powered vehicular travel and advantages of electric powered automobiles. Conversion process, testing, assembly, operation and maintenance of EVs. Appropriate safety related instruction included in each segment.</td>
</tr>
<tr>
<td>AMECH 491</td>
<td>Heavy Duty Alternative Fuels</td>
<td>3.5</td>
<td>3</td>
<td>1.5</td>
<td></td>
<td>letter grade or credit/no credit</td>
<td>Heavy duty/diesel alternative fueled vehicles with an emphasis on natural gas. Includes the theory of operation, installation, testing, trouble-shooting and repair of alternatively-fueled heavy duty vehicles with both dedicated and after-market systems. Gasoline and diesel powered vehicles are discussed, emphasizing computer controlled fuel management. Current trends in the industry and preparation for taking the ASE (Automotive Service Excellence) F1 test are included.</td>
</tr>
<tr>
<td>AMECH 492</td>
<td>H D Alt Fuel Engine Diagnosis &amp; Repair</td>
<td>3.5</td>
<td>3</td>
<td>1.5</td>
<td></td>
<td>letter grade or credit/no credit</td>
<td>Increases student skill and knowledge and updates the student in the area of their choice regarding electric vehicle technology. Emphasizes OEM (original equipment manufacturer) electric vehicle conversion programs and dedicated OEM EVs, continued EV component knowledge, hybrid-electric vehicles and advances in battery and charger technologies showing sensitivity to the diversity and backgrounds of the students. Appropriate safety related instructions will be included in each segment.</td>
</tr>
</tbody>
</table>
Courses of Instruction

Covers diesel engine conversion to a spark ignited, alternatively-fueled engine. The theory of operation, conversion, trouble-shooting and maintenance of alternatively-fueled heavy duty engines, emphasizing natural gas and computer controlled fuel management systems. Includes both factory and after-market dedicated systems. Current trends in the industry and preparation for taking the ASE (Automotive Service Excellence) F1 test are included.

AMECH 493  3.5 units
Alt Fuels Conversion, Diagnosis & Repair
3 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
Covers chassis conversion of light and heavy duty vehicles to run on alternative fuels. The theory of conversion, installation, regulations and certification, manufacturing techniques and trouble-shooting of alternatively-fueled vehicles, emphasizing natural gas and computer controlled fuel management systems. Current trends in the industry and preparation for taking the ASE (Automotive Service Excellence) F1 test are included.

AMECH 801  2.0 units
Quick Service Tech — Lubrication Service
2 hours lecture, 0.2 hours laboratory
Grading: credit/no credit
Learning to be a Quick-Service Lubrication Technician is one of the fastest ways to a job in automotive technology. This one-week course prepares you to enter this field immediately with skills needed for an entry-level job doing oil changes, lubrication, under hood services and vehicle inspections. Job seeking skills are included. Also excellent for the do-it-yourselfer who wants to learn how professionals do a lubrication service.

AMECH 802  2.0 units
Quick Service Tech — Tire Service
2 hours lecture, 0.2 hours laboratory
Grading: credit/no credit
Learning to be a Quick Service Tire Technician is one of the fastest ways to a job in automotive technology. This one-week course prepares you to enter this field immediately with skills needed for an entry-level job doing tire rotation, repair, replacement, balancing and vehicle inspections. Job seeking skills included. Also excellent for the do-it-yourselfer who wants to learn how professionals do tire service.

AMECH 803  2.0 units
Quick Service Tech — Brake Inspection
2 hours lecture, 0.2 hours laboratory
Grading: credit/no credit
Learning to be a Quick Service Brake Inspection Technician is one of the fastest ways to a job in automotive technology. This one-week course prepares you to enter this field immediately with skills needed for an entry-level job doing brake safety inspections and vehicle inspections. Job seeking skills included. Also excellent for the do-it-yourselfer who wants to learn how professionals do brake service.

AVIATION MAINTENANCE

AVMNT 210  14.0 units
General Aviation Maintenance Technology
9 hours lecture, 15 hours laboratory
Grading: letter grade.

A required course leading to the FAA Aviation Maintenance Technician Certificate with a rating of Power plant and/or Airframe Mechanic. Includes: basic electricity, aircraft drawings, weight and balance, fluid lines and fittings, materials and processes, ground operation and servicing, cleaning and corrosion control, math, maintenance forms and records, basic physics, maintenance publications and mechanic’s privileges and limitations.

AVMNT 211  7.0 units
General Aviation Maintenance Technology
13 hours lecture.
Grading: letter grade.
Beginning course for persons wishing to become airplane mechanics. Partially fulfills the requirements stated in FAR 147. Includes safety, basic electricity, weight and balance, materials and processes, math and basic physics. Typically offered for nine weeks.

AVMNT 241  8.0 units
Airframe Structures
6.2 hours lecture, 9.3 hours laboratory
Recommended Preparation: AVMNT211
Grading: letter grade.
Partially fulfills the requirements stated in FAR 147. Includes safety, wood structures, aircraft covering, sheet metal structures, ice and rain control, welding, aircraft finishing, cleaning and corrosion control, wood structures and aircraft drawings. Typically offered for nine weeks.

AVMNT 242  8.0 units
Aircraft Systems and Components 1
6.2 hours lecture, 9.3 hours laboratory
Recommended Preparation: AVMNT241
Grading: letter grade.
Partially fulfills the requirements stated in FAR 147. Includes safety, assembly and rigging, airframe inspection, hydraulic and pneumatic power systems, cabin atmosphere, aircraft drawing, aircraft instrument systems, aircraft electrical systems, position and warning systems, fluid line and fittings, cleaning and corrosion control. Typically offered for nine weeks.

AVMNT 243  8.0 units
Aircraft Systems and Components 2
6.2 hours lecture, 9.3 hours laboratory
Recommended Preparation: AVMNT242
Grading: letter grade.
Partially fulfills the requirements stated in FAR 147. Includes safety, assembly and rigging, airframe inspection, hydraulic and pneumatic power systems, aircraft electrical systems, position and warning systems, fluid line and fittings, cleaning and corrosion control. Typically offered for nine weeks.

AVMNT 251  8.0 units
Powerplant Theory and Maintenance
6.2 hours lecture, 9.3 hours laboratory
Recommended Preparation: AVMNT211
Grading: letter grade.
Partially fulfills the requirements stated in FAR 147. Includes safety, reciprocating engine-A, turbine engine-A, lubrication systems and maintenance forms and records. Typically offered for nine weeks.

AVMNT 252  8.0 units
Powerplant Systems and Components 1
6.2 hours lecture, 9.3 hours laboratory
Courses of Instruction

AVMNT 253 8.0 units
Powerplant Systems and Components 2
6.2 hours lecture, 9.3 hours laboratory
Recommended Preparation: AVMNT252
Grading: letter grade.
Partially fulfills the requirements stated in FAR 147.
Includes safety, reciprocating engines-B, turbine engines-B, engine instrument systems, propellers-B, engine electrical systems, engine fire protection, engine inspection, engine exhaust systems, aircraft instrument system, communication and navigation systems, ice and rain control, additional practices and exams.

AVMNT 427A 4.0 units
Aviation Electronics (Avionics)
3 hours lecture, 3 hours laboratory
Prerequisite: AVMNT211, ELECT51 or FCC License
Grading: letter grade.
Covers theory and practical applications of electronic equipment for aircraft including the following systems: safety, publications, drawings and schematics, FCC regulations and abbreviations, hand tools and test equipment, review of electronic principles and circuits, communications, navigational, multiplexing, distance measuring equipment and autopilot systems.

AVMNT 427B 4.0 units
Aviation Electronics (Avionics)
3 hours lecture, 3 hours laboratory
Prerequisite: AVMNT427A
Grading: letter grade.
Theory and practical applications of electronic equipment for aircraft including the following systems: ADF, radar, marker beacon, glideslope and localizer, antennae and servo. Lectures and selected field trips.

AVMNT 440 4.0 units
Aircraft Mechanics License Preparation
3 hours lecture, 3 hours laboratory
Prerequisite: Eligible for FAA Airframe and Powerplant written exam or in the final one-third of an FAA approved maintenance technician program.
Grading: letter grade or credit/no credit
Review of theoretical and technical information related to airframe and powerplant mechanics in preparation for the FAA written, oral and practical exams.

AVMNT 441A 2.0 units
Aircraft Blueprint Reading
1.5 hours lecture, 1.5 hours laboratory
Grading: letter grade.
Fundamentals of blueprint reading and related information as applied to aircraft manufacturing.

AVMNT 460 4.0 units
Airframe Structures 1
3 hours lecture, 3 hours laboratory
Grading: letter grade.
Partially fulfills the requirements for airframe structures stated in FAR 147 including wood structures, aircraft covering and sheet metal structures.

AVMNT 461 4.0 units
Airframe Structures 2
3 hours lecture, 3 hours laboratory
Grading: letter grade.
Partially fulfills the requirements for airframe structures stated in FAR 147, including ice and rain control, welding, aircraft finishing, cleaning and corrosion control and aircraft drawings.

AVMNT 462 4.0 units
Aircraft Systems and Components 1
3 hours lecture, 3 hours laboratory
Grading: letter grade.
Partially fulfills the requirements for aircraft systems and components stated in FAR 147 including aircraft landing gear systems, hydraulic and pneumatic power systems, fluid line and fittings and cabin atmosphere.

AVMNT 463 4.0 units
Aircraft Systems and Components 2
3 hours lecture, 3 hours laboratory
Grading: letter grade.
Partially fulfills the requirements for aircraft systems and components stated in FAR 147 including aircraft drawing, instrument systems and electrical systems.

AVMNT 464 4.0 units
Aircraft Systems and Components 3
3 hours lecture, 3 hours laboratory
Grading: letter grade.
Partially fulfills the requirements for aircraft systems and components stated in FAR 147, including position and warning systems, cleaning and corrosion control, assembly and rigging and ground operation.

AVMNT 465 4.0 units
Aircraft Systems and Components 4
3 hours lecture, 3 hours laboratory
Grading: letter grade.
Partially fulfills the requirements for aircraft systems and components stated in FAR 147, including airframe inspection, hydraulic and pneumatic power systems, communication and navigation.

AVMNT 466 4.0 units
Aircraft Systems and Components 5
3 hours lecture, 3 hours laboratory
Grading: letter grade.
Partially fulfills the requirements for aircraft systems and components stated in FAR 147, including aircraft fuel systems, drawing, ice and rain control, fluid lines and fittings.

AVMNT 470 4.0 units
Powerplant Theory and Maintenance
3 hours lecture, 3 hours laboratory
Grading: letter grade.
Partially fulfills the requirements for powerplants stated in FAR 147, including reciprocating engines, lubrication systems, maintenance forms and induction systems.

AVMNT 471 4.0 units
Powerplant Systems and Components 1
3 hours lecture, 3 hours laboratory
Grading: letter grade.
Partially fulfills the requirements for powerplants stated in FAR 147, including turbine engine, ignition systems, engine cooling systems and mechanic privileges and limitations.
Courses of Instruction

**AVMNT 472** 4.0 units
Powerplant Systems and Components 2
3 hours lecture, 3 hours laboratory
Grading: letter grade.
Partially fulfills the requirements for powerplants stated in FAR 147, including engine fuel systems, induction systems, aircraft instruments and propellers “A.”

**AVMNT 473** 4.0 units
Powerplant Systems and Components 3
3 hours lecture, 3 hours laboratory
Grading: letter grade.
Partially fulfills the requirements for powerplants as stated in FAR 147, including engine fuel systems, propellers “B.”

**AVMNT 474** 4.0 units
Powerplant Systems and Components 4
3 hours lecture, 3 hours laboratory
Grading: letter grade.
Partially fulfills the requirements for powerplants as stated in FAR 147, including reciprocating engines “B,” turbine engines “B,” engine inspection and exhaust systems.

**AVMNT 475** 4.0 units
Powerplant Systems and Components 5
3 hours lecture, 3 hours laboratory
Grading: letter grade.
Partially fulfills the requirements for powerplants as stated in FAR 147, including engine electrical systems, engine fire protection, ice and rain control and additional practices and exams.

**AVMNT 476** 4.0 units
Powerplant Systems and Components 6
3 hours lecture, 3 hours laboratory
Grading: letter grade.
Partially fulfills the requirements for powerplants as stated in FAR 147, including engine electrical systems, engine fire protection, ice and rain control and additional practices and exams.

**AVMNT 477** 4.0 units
Advanced Gas Turbine Engine
6 hours lecture.
Grading: letter grade.
For aviation airframe and powerplant technicians and covers: gas turbine engine theory, types of gas turbine engines, internal turbine engine components, jet engine system descriptions, gas turbine maintenance, handling and operation.

**AVMNT 601** 0.0 units
Aviation Refresher Training
15 hours laboratory
Grading: no grade awarded
Preparation for entry or re-entry into and for advancement in an aviation maintenance field. Develop or review basic terminology, basic hand tool and equipment identification and application, basic math and other knowledge and skills needed for job preparation.

**AVPLT 49** 1.0 unit
Professional Pilot Career Orientation
1 hour lecture.
Grading: credit/no credit

**AVPLT 50** 5.0 units
Basic Aeronautical Ground School
5 hours lecture.
Grading: letter grade or credit/no credit
Satisfies FAA requirements for private pilot ground instruction and provides substantial additional preparation for becoming a safe pilot. Weather navigation, aircraft and engines, radio, theory of flight, safety and FAR’s are discussed. Exams are included. Transfer Status: Transferable to CSU, see counselor for limitations.

**AVPLT 51** 3.0 units
Commercial Ground School
3 hours lecture
Recommended Preparation: AVPLT 50 or FAA private pilot certificate.
Grading: letter grade or credit/no credit
Covers airplane aerodynamics, engines, instruments and systems. Airplane performance, weight and balance control, aircraft operation, aeronautical decision making, judgment and other human factors are discussed. Selected sections of FAR parts 1, 61, 91, 135 and 121; NTSB Part 830, AVPLT 51, plus either AVPLT 50 and 54 and 56 satisfies the requirement of FAR 61. 125 for Commercial Pilot aeronautical knowledge. Transfer Status: Transferable to CSU, see counselor for limitations.

**AVPLT 52** 3.0 units
Instrument Ground School
3 hours lecture
Recommended Preparation: AVPLT 50 or FAA private pilot certificate. Helpful but not necessary to have completed AVPLT 51 and 56.
Grading: letter grade or credit/no credit
Covers use and interpretation of flight instruments, flight planning, aircraft performance and human factors, pre-flight weather briefing, regulations and air traffic control procedures and preparation for FAA written exam. Satisfies requirement of Federal Aviation Administration Part 61 for instrument pilot-airplane ground school. Transfer Status: Transferable to CSU, see counselor for limitations.

**AVPLT 54** 3.0 units
Navigation
3 hours lecture
Recommended Preparation: AVPLT 50 or FAA private pilot certificate.
Grading: letter grade or credit/no credit
Covers piloting, dead reckoning and radio navigation, emphasizing the practical application to cross-country navigation of general aviation aircraft. Transfer Status: Transferable to CSU, see counselor for limitations.

**AVPLT 56** 3.0 units
Meteorology
3 hours lecture.
Grading: letter grade or credit/no credit
Covers the atmosphere, temperature, pressure, wind, moisture, stability, clouds, air masses, fronts, turbulence, icing, thunderstorms, fog, weather observations, forecasts and reports. Transfer Status: Transferable to CSU, see counselor for limitations.

**AVPLT 57**  
**Aircraft Engines and Related Systems**  
3 hours lecture.  
Grading: letter grade or credit/no credit  
Primarily covers reciprocating engines, including types and construction; lubrication systems; propellers and governors; carburetion fuel injection; superchargers and turbochargers; ignition systems; fire protection and engine operation. Learn to detect, trouble-shoot and report maintenance problems. Aircraft maintenance regulations, forms and procedures are covered. Includes an intro to turbine engines and is intended for pilots and aircraft owners. Transfer Status: Transferable to CSU, see counselor for limitations.

**AVPLT 59**  
**Aero Systems**  
3 hours lecture.  
Grading: letter grade or credit/no credit  
Retractable gear is discussed, as well as electrical, basic hydraulic, fuel, pneumatic, de-icing, anti-icing, oxygen and pressurization systems. Normal and emergency operating procedures are discussed, as well as inflight trouble-shoot ing and problem reporting. Note: for pilots, not for prospective aircraft mechanics (see Aviation Maintenance Technician courses). Transfer Status: Transferable to CSU, see counselor for limitations.

**AVPLT 60**  
**Aero Law**  
2 hours lecture.  
Grading: letter grade or credit/no credit  
Legal rights, responsibilities and problems associated with aircraft ownership, operation and repair. Note: course does not cover Federal Air Regulations, but is designed primarily for pilots, aircraft owners and aircraft operators. Transfer Status: Transferable to CSU, see counselor for limitations.

**AVPLT 61**  
**Basic Simulator Flight Training**  
1 hour lecture, 3 hours laboratory  
Grading: credit/no credit  
Discusses flight simulator characteristics and operation, instrument interpretation and aircraft control by reference to instruments, altitude instrument flying, intro to radio navigation procedures, flight safety and emergency procedures. Transfer Status: Transferable to CSU, see counselor for limitations.

**AVPLT 62AD**  
**Advanced Simulator Flight Training**  
1 hour lecture, 3 hours laboratory  
Recommended Preparation: AVPLT61 or FAA private pilot certificate.  
Grading: credit/no credit  
Courses of Instruction

Transfer Status: Transferable to CSU, see counselor for limitations.

**BASIC ADULT EDUCATION**

**BAE 601** 0.0 units
Basic Adult Education-Fundamental Skills
15 hours laboratory
Grading: no grade awarded
Designed to aid students who: (1) are enrolled, or plan to enroll, in regular courses and need to improve or refresh their basic educational skills; (2) wish to review or complete their elementary and/or secondary education; (3) plan to take the General Education Diploma (GED) tests; (4) are preparing to take exams for employment, special educational/vocational programs or college/university entrance or (5) wish to improve their mastery of English as a Second Language.

**BIOLOGY**

**BIO 1A (Part of CAN BIO SEQUENCE A)** 5.0 units
Biology for Science Majors
3 hours lecture, 6 hours laboratory
Prerequisite: CHEM 1A
Grading: letter grade.
The first semester of a one-year survey of biology. Includes the chemistry of life, cellular organization, biological membranes, energetics, genetics, evolution and diversity of lower life forms. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**BIO 1B (Part of CAN BIO SEQUENCE A)** 5.0 units
Biology for Science Majors
3 hours lecture, 6 hours laboratory
Prerequisite: BIO 1A
Grading: letter grade.
The second semester of a one-year survey of biology. Includes an overview of diversity, structures and life processes in plants and animals and ecology. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**BIO 2 (CAN BIOL 14)** 5.0 units
General Microbiology
3 hours lecture, 6 hours laboratory
Grading: letter grade or credit/no credit
An intro to the anatomy of bacteria, fungi, algae, protozoa, viruses, microbial metabolism, bacterial genetics, genetic engineering, control of micro-organisms, antimicrobial drugs, current microbial classification, characteristics of the most common genera of micro-organisms, replication of viruses, common diseases caused by micro-organisms and viruses, microbial ecology, aquatic microbiology and the microbiology of foods and beverages. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**BIO 5** 4.0 units
Plant Biology
3 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Develop an understanding of the fundamental concepts and principles of plant life, including a study of plant structures, functions and diversity. Designed for non-science majors. Not open to students registered in or with credit in BIO 1A. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**BIO 10** 3.0 units
Environmental Problems of Man
3 hours lecture.
Grading: letter grade or credit/no credit
A study of the effects of man’s interaction with the total environment, the problems resulting from ignoring known ecological principles and the socio-cultural implication of biological concepts. Selected crisis situations will be examined. Physical, biological and political means and methods of reversing environmental deterioration will be considered, as well as conservation and management of natural resources. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**BIO 15** 3.0 units
Plants and Human Affairs
3 hours lecture.
Grading: letter grade or credit/no credit
An intro to the basic structure of seed plants and those specific plants or plant parts which are of historical, economic and biological importance. Become familiar with plants used for beverages, food, drugs, aromatic products and fiber. Designed for the non-science major. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**BIO 18** 2.0 units
Edible, Poisonous & Useful Plants
2 hours lecture.
Grading: letter grade or credit/no credit
An intro to the identification and usages of plants of various Southern California areas. Specific plants used as sources of food, drugs, fibers, dyes and those known to be poisonous will be described and discussed. Includes lectures in the classroom and in the field. Designed for non-science majors. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**BIO 20** 4.0 units
Marine Biology
3 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
An intro to marine natural history, incorporating biological concepts: plants, animals and habitats of the marine environment. A variety of marine communities are discussed in relation to their biotic and physical/chemical components. Includes lab work and field trips. Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.

**BIO 20H** 4.0 units
Honors Marine Biology
3 hours lecture, 3 hours laboratory
Prerequisite: Qualification for the Honors Program.
Grading: letter grade or credit/no credit
An intro to marine natural history, incorporating biological concepts: plants, animals and habitats of the marine environment. A variety of marine communities are discussed in relation to their biotic and physical/chemical components. Includes lab work and field trips. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**BIO 22** 2.0 units
Oceanus: The Marine Environment
2 hours lecture.
Grading: letter grade or credit/no credit
Focuses on the marine environment as a unique feature of the planet Earth and investigates areas of intense scientific and public concern: the pervasiveness of the ocean and its effect on weather, its contributions to the size and diversity of life forms and to the physical and historical development of humankind, its impact on geopolitical and economic matters, the impact of oceanic pollutants and the potential exploitation of the marine resources. Transfer Status: Transferable to CSU, see counselor for limitations.

BIO 25 3.0 units
Biology and Society
3 hours lecture.
Grading: letter grade or credit/no credit
Covers a variety of basic biological concepts, discoveries and theories that also have important social, philosophical, ethical and religious implications. Sharpen critical thinking skills while exploring scientific thinking, biological evolution, natural selection, bioethics, abortion, cloning, homosexuality, AIDS, genetic engineering, reproductive technologies, overpopulation and major ecological issues. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

BIO 28 2.0 units
Field Natural History of the Mountains
1.3 hours lecture, 2 hours laboratory.
Grading: letter grade or credit/no credit
Intro to mountain environments and communities. Covers physical and biological aspects of mountain ecosystems, using at least two weekend field trips to explore and compare various California mountain ranges. Emphasizes the various life zones and the identification of their representative plants and animals. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

BIO 30 4.0 units
Wildlife Biology
3 hours lecture, 3 hours laboratory.
Grading: letter grade or credit/no credit
A natural history course that provides a general survey of ecological principles which describe organisms, their habits and how they relate to the environment. Includes all major forms of life, characteristics and behaviors of selected forms, using California representatives as examples. Various natural communities are discussed with reference to their local geology, geography, climate, seasonal influences, ecological principles and biotic communities. Communities emphasized include marine habitats, chaparral regions, mountain ranges and life zones and deserts. After taking the course, the student should be familiar with climate, rocks, plants, animals, major ecological factors and biogeography of any area in California. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

BIO 37 2.0 units
Field Natural Hist: South Calif. Deserts
1.3 hours lecture, 2 hours laboratory.
Grading: letter grade or credit/no credit
Acquaints students with the basic physical and biological features of the desert environment. Emphasizes plants and animals of the desert ecosystem and their adaptations to the environment. The associations and habitats characteristic to the desert will be examined. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

BIO 38 2.0 units
Field Natural History: Newport Bay
1.3 hours lecture, 2 hours laboratory.
Grading: letter grade or credit/no credit
A study of the estuarine wetland habitats of Newport Bay. Become acquainted with the basic physical and biological features of Newport Bay. A study of the common plants and animals of both the marine and terrestrial environments will be made. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

BIO 41 3.0 units
Contemporary Biology
3 hours lecture.
Corequisite: BIO 41L
Grading: letter grade or credit/no credit
Covers the general principles of biology, such as molecular biology, organic evolution, taxonomy, basic similarities of living patterns, basic physiology and anatomy of body systems, genetic continuity and environmental biology. Significant problems of modern biology are included. Not open for credit to students registered in or with credit in BIO 1A-B or 5. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

BIO 41H 3.0 units
Honors Contemporary Biology
3 hours lecture.
Prerequisite: Qualification for the Honors Program.
Corequisite: BIO 41L
Grading: letter grade or credit/no credit
Covers the general principles of biology such as molecular biology, organic evolution, taxonomy, basic similarities of living patterns, basic physiology and anatomy of body systems, genetic continuity and environmental biology. Significant problems of modern biology are included. Not open for credit to students registered in or with credit in BIO 1A-B or 5. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

BIO 41L 1.0 unit
Contemporary Biology Laboratory
3 hours laboratory.
Corequisite: BIO 41
Grading: letter grade or credit/no credit
An audio tutorial lab in contemporary biology which provides a practical experience. Experiments and demonstrations are selected which clarify the principles developed in BIO 41. Not open for credit to students
Courses of Instruction

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registered in or with credit in BIO 1A-B or 5. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**BIO 47** 1.0 unit
Personalized System/Instr Proctor Progrm
3 hours laboratory
Prerequisite: BIO 41 and 41L or 60 and 60L.
Grading: letter grade or credit/no credit
Designed to allow advanced students to assist in the audio tutorial and related life science labs. Includes principles of tutoring, techniques of evaluation and intensive review of specific lab topics. Under faculty supervision students administer and evaluate written and/or oral quizzes and tutor other students. Transfer Status: Transferable to CSU, see counselor for limitations.

**BIO 48** 2.0 units
Personalized System/Instr Proctor Progrm
6 hours laboratory
Prerequisite: BIO 41 and 41L or 60 and 60L.
Grading: letter grade or credit/no credit
Designed to allow advanced students to assist in the audio tutorial and related life science labs. Includes principles of tutoring, techniques of evaluation and intensive review of specific lab topics. Under faculty supervision students administer and evaluate written and/or oral quizzes and tutor other students. Transfer Status: Transferable to CSU, see counselor for limitations.

**BIO 49** 3.0 units
Personalized System/Instr Proctor Progrm
9 hours laboratory
Prerequisite: BIO 41 and 41L or 60 and 60L.
Grading: letter grade or credit/no credit
Designed to allow advanced students to assist in the audio tutorial and related life science labs. Includes principles of tutoring, techniques of evaluation and intensive review of specific lab topics. Under faculty supervision students administer and evaluate written and/or oral quizzes and tutor other students. Transfer Status: Transferable to CSU, see counselor for limitations.

**BIO 60** 4.0 units
Human Biology 1
4 hours lecture.
Grading: letter grade or credit/no credit
Combines the elementary principles of anatomy, physiology, microbiology, nutrition and very elementary chemistry. Learn the basic terminology of these fields as a foundation for further study of medical problems and diseases. Designed to fulfill the general science requirement and to meet the needs of the health occupations student. Not open for credit to students registered in or with credit in ANAT 1 and PHYS 1. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**BIO 60L** 1.0 unit
Human Biology 1 Laboratory
3 hours laboratory
Prerequisite: BIO 60 (may be taken concurrently)
Grading: letter grade or credit/no credit
An audio tutorial biology lab providing practical experience in human anatomy, physiology and microbiology. Experiments and demonstrations are selected which clarify the principles developed in BIO 60. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**BIO 61** 3.0 units
Human Biology 2
3 hours lecture.
Prerequisite: BIO 60
Grading: letter grade or credit/no credit
Intro to the study of disease, including cause, prevention and symptoms of the common human diseases, assumes a basic understanding of anatomy and physiology. Designed for the general student and those in the health technology fields. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**BIO 62** 3.0 units
Human Biology 3
3 hours lecture.
Prerequisite: BIO 60 and eligibility for ENGL 1.
Grading: letter grade or credit/no credit
An advanced anatomy, physiology and microbiology course. Includes the nervous system, sense organs, the circulatory, respiratory, excretory and digestive systems, common infectious diseases and epidemiology. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**BIO 261** 3.0 units
Human Biology for Vocational Nurses
3 hours lecture.
Prerequisite: BIO 60
Grading: letter grade.
A course in human anatomy, physiology and disease processes for vocational nurses and general students. Builds on the students’ knowledge of the human body obtained in BIO 60. Includes info on nutrition, infectious diseases, genetics and the common diseases that affect each body system. Not to be used for transfer into the ADN program.

**BIO 800** 3.0 units
Basic Life Science Preparation
3 hours lecture.
Grading: credit/no credit
A study of the terminology and concepts presented in life science and health technology courses. Designed to give written and verbal practice with the vocabulary and study skills needed to be successful in transfer-level life science courses. Activities include the use of computer programs, tape recorders for oral feedback, journal keeping for self-appraisal, writing practice and group discussion for active listening practice. Also designed for the student who comes from an ESL background, received low assessment scores in any of the three basic areas or has a background that may indicate difficulty succeeding in transfer-level life science curricula.

**BUSINESS, GENERAL**

**GBUS 5** 3.0 units
Introduction to Business
3 hours lecture.
Grading: letter grade.
Surveys functions, characteristics, organization and problems of industry. Serves as a foundation for later, specialized study, particularly in accounting and economics. Orient students toward vocational specialization. Transfer Status: Transferable to UC/CSU, see counselor for limitations.
GBUS 216A 1.0 unit
Fundamentals of Investments
1 hour lecture.
Grading: letter grade.
Covers risks and procedures involved in investment programs with major emphasis on marketing corporate equities, mutual funds, taxation and financial statements. Typically offered for six weeks.

GBUS 216B 1.0 unit
Fundamentals of Investments
1 hour lecture.
Grading: letter grade.
Covers risks and procedures involved in investment programs with major emphasis on bonds, wills, insurance, real estate and pension and estate planning. Typically offered for six weeks.

GBUS 251 3.0 units
Business Mathematics
3 hours lecture
Recommended Preparation: Proficiency in math
Grading: letter grade.
Emphasizes quantitative business techniques as applied to pricing, markdowns, discounts, interest, calculating payroll, ratios, business statistics, income statements and balance sheets.

GBUS 270AD 1.0 unit
Work Experience Issues—General Business
1 hour lecture.
Corequisite: Enrollment in at least seven units including GBUS 271AD, 272AD or 273AD and 270AD.
Grading: letter grade or credit/no credit
Seminar related to work experience. Discussion of objectives, career goals, employment search, communication skills and problem solving.

GBUS 271AD 1.0 unit
Work Experience — Business, General
4.1 hours laboratory
Corequisite: Enrollment in at least seven units including GBUS 270AD and 271AD.
Grading: letter grade or credit/no credit
Gain vocational learning experiences through employment directly related to the industry.

GBUS 272AD 2.0 units
Work Experience — Business, General
8.3 hours laboratory
Corequisite: Enrollment in at least seven units including GBUS 270AD and 272AD.
Grading: letter grade or credit/no credit
Gain vocational learning experiences through employment directly related to the industry.

GBUS 273AD 3.0 units
Work Experience — Business, General
12.5 hours laboratory
Corequisite: Enrollment in at least seven units including GBUS 270AD and 273AD.
Grading: letter grade or credit/no credit
Gain vocational learning experiences through employment directly related to the industry.

BUSINESS, INTERNATIONAL

IBUS 1 3.0 units
Introduction to International Business
3 hours lecture.
Grading: letter grade.
Intro to the global business macro-environment and orients students toward a career in the field of international business. Transfer Status: Transferable to CSU, see counselor for limitations.

IBUS 20 3.0 units
Export-Import Business Practices
3 hours lecture.
Grading: letter grade.
Consists of the basics of export-import business, how to handle money matters and how to buy and sell. Designed for the person seeking an entry level position, contemplating the start of an export-import business or the manager wanting to expand a company’s marketing opportunities. Transfer Status: Transferable to CSU, see counselor for limitations.

IBUS 30 3.0 units
International Business Management
3 hours lecture.
Grading: letter grade.
Emphasizes the concept that management of an international operation differs in many ways from that which takes place in just one country. Gain knowledge, insight, foresight and competence needed in the international decision-making process. Transfer Status: Transferable to CSU, see counselor for limitations.

IBUS 40 3.0 units
International Banking and Finance
3 hours lecture.
Grading: letter grade.
Emphasizes the financial requirements of international business, source of funds, international credit and payment arrangements and methods of minimizing financial risks. Transfer Status: Transferable to CSU, see counselor for limitations.

IBUS 52 3.0 units
International Marketing
3 hours lecture.
Grading: letter grade.
Orientates the student to the performance of business activities that direct the flow of a company’s goods and services to the consumers or users in more than one nation. Emphasizes the practical skills and techniques utilized to successfully market on an international basis. Transfer Status: Transferable to CSU, see counselor for limitations. Course articulated with LBUSD.

IBUS 60 3.0 units
International Business Law
3 hours lecture.
Grading: letter grade.
Provides a general overview and understanding of international law as it applies to international business and global trade. Transfer Status: Transferable to CSU, see counselor for limitations.

IBUS 95 3.0 units
Practical Applications/Internat Business
3 hours lecture.
Grading: letter grade.
Emphasizes that entrepreneurship is a practice. Learn to become a business manager with the practices and principles to enter the entrepreneurial economy. Transfer Status: Transferable to CSU, see counselor for limitations.

IBUS 270AD 1.0 unit
Work Experience Issues—International Bus
1 hour lecture.
Corequisite: Enrollment in at least seven units including IBUS 273AD.
Recommended Preparation: Completion of at least one course in International Business.
Grading: letter grade or credit/no credit
Involves discussion of work experience objectives, career goals, employment adjustments and problem areas encountered on the job.

IBUS 273AD 3.0 units
Work Experience—International Business
12.5 hours laboratory
Grading: letter grade.
Improve your skills in international business. Students who are currently employed in the field or seeking an internship will gain valuable insights through a mentored program designed to assist them in setting and achieving work goals. This course is offered once per year.

BUSINESS, LAW

LAW 18A (CAN BUS 8) 3.0 units
Business Law
3 hours lecture.
Grading: letter grade.
Intro to law and court systems, contracts, government, property, bailment and sales. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

LAW 18B 3.0 units
Business Law
3 hours lecture.
Grading: letter grade.
Confirmation of the completion of LAW 18A and the study of secured transactions, agency and employment, business organizations and property. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

CABINET MAKING

CABMK 201 10.0 units
Intro to Wood Products Manufacturing
5 hours lecture, 15 hours laboratory
Grading: letter grade or credit/no credit
A beginning course that covers the employment opportunities, safety practices, materials and techniques used to fabricate the wood products.

CABMK 202 10.0 units
Millwork and Cabinet Making 2
5 hours lecture, 15 hours laboratory
Prerequisite: CABMK 201
Grading: letter grade or credit/no credit
Safety, advanced detailing, stock billing, cabinet wood selection, cutting distortions from cabinet woods, fundamentals of power machine operation and wood technology are outlined. Special projects and field trips are included.

CABMK 203 10.0 units
Millwork and Cabinet Making 3
5 hours lecture, 15 hours laboratory
Prerequisite: CABMK 202
Grading: letter grade or credit/no credit
Safety, advanced application of woodworking hand tools, advanced wood working power machine operation, machine tool maintenance, material for cabinet making, furniture design and case goods - residential-commercial cabinet construction are outlined. Special projects and field trips are included.

CABMK 204 10.0 units
Millwork and Cabinet Making 4
5 hours lecture, 15 hours laboratory
Prerequisite: CABMK 203
Grading: letter grade or credit/no credit
Safety, external-internal house finish detailing, installation of cabinetry and paneling, estimation cabinetry and millwork, fundamentals of materials and processes used in wood finishing are outlined. Special projects and field trips are included.

CABMK 290AD 2.0 units
Advanced Practices
6 hours laboratory
Prerequisite: CABMK 201 or 301
Grading: letter grade or credit/no credit
A comprehensive lab course for students enrolled in the cabinet making program. Includes techniques and machining practices.

CABMK 455 4.0 units
Wood Products for Aircraft Interiors
3 hours lecture, 3 hours laboratory
Prerequisite: CABMK 201 or 301
Grading: letter grade or credit/no credit
Covers the special materials and techniques used to fabricate the wood products that are used in aircraft. Identifying the information required from engineering drawings, planning the production process, application of fasteners and hardware, installing the products and protecting the product are included. Upon completion, a thorough knowledge of and skill development in the techniques to fabricate wood products for aircraft interiors will be achieved.

CARPENTRY

CARP 211 10.0 units
Carpentry 1
5 hours lecture, 15 hours laboratory
Grading: letter grade or credit/no credit
Covers hand tools, power tools, materials of the carpentry trade, land and lot locating, intro to blueprint reading, foundations, trade history, ethics and safety. Class includes field trips and special projects.

CARP 212 10.0 units
Carpentry 2
5 hours lecture, 15 hours laboratory
Prerequisite: CARP 211
Grading: letter grade or credit/no credit
Safety, rough framing to include: mudsills and their placement, girder placement, floor joists, sub-flooring, wall framing systems, ceiling joists and roughing out stairs, as well as field trips and special projects.
and interior installations. Installation of sewer lines, types of material and calculating quantity for exterior purposes, stucco and stucco repairs, energy conservation. Learn installation of brick and stone for decorating areas, installation of acoustical tile with and without paneling and moldings, tile board for tub and shower and kitchen plumbing. How to install a new door and fix the old one.

**CARP 415D** 2.0 units
Home Remodeling and Repair
1 hour lecture, 3 hours laboratory
Prerequisite: CARP 415C
Grading: letter grade or credit/no credit
Learn to install garbage disposals, toilets, tubs, water heaters and how to fix and maintain them. Electrical installations and repairs for circuit breakers, ground fault interrupters circuits, duplex plugs and switches. Minor repairs on lamps and appliances. Landscaping and how to install a new sprinkler system and repair the old one.

**CARP 440** 3.0 units
Blueprint Reading for Construction Trade
3 hours lecture.
Grading: letter grade or credit/no credit
Intro to materials and review of methods of construction used in the residential, industrial and commercial building blueprint reading.

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**CHEMISTRY**

**CHEM 1A (CAN CHEM 2)** 5.0 units
General Chemistry
4 hours lecture, 5 hours laboratory
Prerequisite: CHEM 2 or qualification through the Chemistry assessment process.
Recommended Preparation: One year high school chemistry.
Grading: letter grade or credit/no credit
Studies the physical aspects of solid, liquid and gas phases including coverage of crystalline structures, solutions and ideal gas. Emphasizes stoichiometric calculations. Thermochemistry, oxidation-reduction, atomic theory and bonding and an intro to kinetics and equilibrium are also considered. The lab stresses quantitative measurements in systems undergoing chemical changes. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**CHEM 1B (CAN CHEM 4)** 5.0 units
General Chemistry
4 hours lecture, 5 hours laboratory
Prerequisite: CHEM 1A
Grading: letter grade or credit/no credit
Extends the study of equilibrium to weak acids and bases, slightly soluble salts and complex ions in aqueous solution. Presents the basic principles of thermodynamics and electrochemistry. Intro to coordination, nuclear and organic chemistry. The lab stresses descriptive inorganic chemistry and qualitative analysis. Meets the requirements for majors in chemistry, engineering, life science, math and physics and is part of the baccalaureate requirements for pre-dental, pre-medical and pre-nursing programs. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**CHEM 2** 4.0 units
Elementary Chemistry
4 hours lecture, 2 hours laboratory
Prerequisite: MATH 110 or high school algebra
Grading: letter grade or credit/no credit
For science or pre-professional majors who lack adequate preparation for CHEM 1A. Provides basic knowledge and problem solving techniques necessary for CHEM 1A-B. Formula and equation writing, basic laws and stoichiometry are stressed. Meets the prerequisite for CHEM 1A; if so used, no college credit is given. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**CHEM 3A (CAN CHEM 6)** 4.0 units

Intro to General and Organic Chemistry
4 hours lecture, 2 hours laboratory
Prerequisite: MATH 110 or high school algebra.
Grading: letter grade or credit/no credit
Satisfies the needs of nursing, home economics and allied health sciences students. Intro to the principles of chemistry and the beginning study of organic chemistry. Includes atomic theory, chemical formulas, nomenclature, chemical bonds, stoichiometry, states of matter, solutions, chemical equilibrium, acids and bases, hydrocarbons, alcohols and ethers. Lab work reinforces basic concepts and provides experiments in manipulating lab equipment. Does not prepare students for CHEM 1A. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**CHEM 3B (CAN CHEM 8)** 4.0 units

Intro To General and Organic Chemistry
4 hours lecture, 2 hours laboratory
Prerequisite: CHEM 3A
Grading: letter grade or credit/no credit
Continuation of the study of organic chemistry and an intro to biochemistry. Includes amines, carboxylic compounds, organic acids and their derivatives, carbohydrates, lipids, amino acids and proteins, enzymes, nucleic acids, biochemical energetics and metabolism of energy yielding compounds. Not open to chemistry majors. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**CHEM 12A** 5.0 units

Organic Chemistry
4 hours lecture, 5 hours laboratory
Prerequisite: CHEM 1A-1B
Grading: letter grade or credit/no credit
Covers bonding, structure, properties and reactions of organic compounds. Modern spectroscopic and analytical techniques are covered, and an emphasis is placed on reaction mechanisms and kinetics. Offered fall semester. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**CHEM 12B** 5.0 units

Organic Chemistry
4 hours lecture, 5 hours laboratory
Prerequisite: CHEM 12A
Grading: letter grade or credit/no credit
Continued survey of bonding, structure, properties, reactions and mechanisms and spectroscopy of fundamental functional groups, with emphasis on carbohydrates, fats and proteins. Meets requirements for most universities and colleges for chemistry, pre-dental, pre-medical, pre-nursing and life science students. Offered spring semester, Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**CHILD DEVELOPMENT, EARLY CHILDHOOD**

**CDECE 1** 1.0 unit
Career Explorations in Child Development
1 hour lecture.
Grading: letter grade or credit/no credit
Provide opportunities to explore and evaluate on-the-job realities of specific occupations for men and women in child development and parent education. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**CDECE 19** 2.0 units
Child Nutrition & Safety D7
2 hours lecture.
Grading: letter grade or credit/no credit
For school food service managers, child care and family day care providers who assume responsibility for child nutrition programs and education and education safety. Includes guidelines for compliance with current federal, state and local legislation associated with child feeding and safety. Not open for credit to students registered in or with credit in F&N 19. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**CDECE 30** 3.0 units
The Community and its Schools
3 hours lecture.
Grading: letter grade or credit/no credit
An intro to education for students considering teaching as a career; observe and visit a variety of public and private schools. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**CDECE 31** 2.0 units
Adult Supervision
2 hours lecture
Recommended Preparation: Current or prior experience as a teacher in an ECE program.
Grading: letter grade.
Covers the principles and practices of supervision and evaluation of staff in early childhood education programs. Emphasizes the role of experienced classroom teachers who function as mentors to new teachers while simultaneously addressing the needs of children, parents and other staff. Meets the State Department of Education requirements for the Child Development Master Teacher, Site Supervisor and Program Director Permits. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**CDECE 34** 3.0 units
Children’s Literature
3 hours lecture.
Grading: letter grade.
Survey of contemporary and traditional children’s literature including a bibliography for schools and community libraries, aids to parents, preschool and elementary school teachers in guiding children’s reading, and textbook and resource information for educators. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**CDECE 40** 3.0 units
Infant Development & Educaring D4
3 hours lecture.
Grading: letter grade.
A study of the infant, pre-birth to 18 months of age. The role of the adult in designing, evaluating and implementing the educare (education and care) of infants in center-based programs, family home care and parental care based on and respectful of the infant’s unique abilities and needs is explored. Developmental theories, program quality standards, laws and regulations (Title 22), the role of the primary caregiver, curricula, culturally sensitive care, as well as early recognition and intervention for infants with special needs, are emphasized. Information about the health, nutrition and safety components of infant care is included. Meets the Department of Social Services Classification Indicator DS 4. Transfer Status: Transferable to CSU, see counselor for limitations.

CDECE 41 3.0 units
Toddler Development & Educaring D4
3 hours lecture.
Grading: letter grade.
A study of the educare (education and care) of toddlers 18 to 36 months of age. The role of the adult in a center-based program, in family home care and parental care, as well as an overview of child development theories pertinent to this age, is provided. Activities and methods which nurture the toddler’s intellectual, language, emotional, social, personality and motor development are explored. Effective behavior management is covered. Laws and regulations (Title 22), program quality standards, group size and continuity of care, the role of the primary caregiver, curricula, the toddler’s unique development needs, culturally sensitive care, as well as early recognition and intervention for toddlers with special needs, are emphasized. Information about the health, nutrition and safety components of toddler care is included. Meets the Department of Social Services Classification Indicator DS4. Transfer Status: Transferable to CSU, see counselor for limitations.

CDECE 45 3.0 units
Child & Adolescent Development
3 hours lecture.
Grading: letter grade or credit/no credit
A study of social, emotional, intellectual and physical growth patterns from conception through adolescence. Theories of development are studied as an integrated approach to each of the aforementioned phases of life. Meets the State of California requirement for teaching in early childhood education programs. Not open for credit to students registered in or with credit in CDECE47. Does not meet the general education requirement for Area D nor does it meet the prerequisite for the Nursing program. Transfer Status: Transferable to CSU, see counselor for limitations.

CDECE 48 3.0 units
Child, Family and Community D2
3 hours lecture.
Grading: letter grade or credit/no credit
A study of how family, school and community affect a child’s development. Emphasizes the dynamics of human relations in a multi-cultural, urban environment and agencies concerned with health, education and welfare of children and families. Fulfills state licensing requirements for child, family and community D2. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

CDECE 53 3.0 units
Intro to Early Childhood Education
3 hours lecture.
Grading: letter grade or credit/no credit
Surveys educational programs for young children and their development and implementation of them. Transfer Status: Transferable to CSU, see counselor for limitations. Course articulated with LBUSD.

CDECE 54 2.0 units
Art for Children D3
2 hours lecture.
Grading: letter grade or credit/no credit
Learn the philosophy, principles and implementation of art experiences for the young child. Fulfills state licensing requirements for programs, curriculum D3. Transfer Status: Transferable to CSU, see counselor for limitations.

CDECE 55 2.0 units
Music for Children D3
2 hours lecture.
Grading: letter grade or credit/no credit
Learn the philosophy, principles and implementation of art experiences for the young child. Fulfills state licensing requirements for programs, curriculum D3. Transfer Status: Transferable to CSU, see counselor for limitations.

CDECE 56 2.0 units
Creative Movement for Young Children D3
2 hours lecture.
Grading: letter grade or credit/no credit
Principles and methods of providing musical experiences for young children. Development of skills with simple musical instruments suitable for use in early childhood education programs. Transfer Status: Transferable to CSU, see counselor for limitations.

CDECE 57 2.0 units
Science in Early Childhood D3
2 hours lecture.
Grading: letter grade or credit/no credit
A study of methods and materials that encourages preschool children to explore and experiment in their natural environment. Relate mathematical, spatial and problem-solving concepts to discovery through play activities. Satisfies state licensing requirement for curriculum program D3. Transfer Status: Transferable to CSU, see counselor for limitations.

CDECE 58 2.0 units
Language Arts for Young Children D3
2 hours lecture.
Grading: letter grade.
Courses of Instruction

A survey of literature, language arts and emerging literacy activities for young children. Meets state licensing requirements for program curriculum D3. Transfer Status: Transferable to CSU, see counselor for limitations.

CDECE 59 3.0 units
Child Behavior D3
3 hours lecture.
Grading: letter grade or credit/no credit
A study of the ways of approaching and understanding children's behavior. Transfer Status: Transferable to CSU, see counselor for limitations.

CDECE 60A 3.0 units
Admin of Child Development Programs D6
3 hours lecture.
Prerequisite: CDECE45 or 47
Grading: letter grade or credit/no credit
A study of the principles of organizing and administering early childhood education programs. Transfer Status: Transferable to CSU, see counselor for limitations.

CDECE 60B 3.0 units
Advanced Supervision of ECE D6
3 hours lecture.
Prerequisite: CDECE45 or 47
Grading: letter grade or credit/no credit
An in-depth study of the principles of organizing and administrating preschool programs, emphasizing staffing issues, program quality and working with parents. Transfer Status: Transferable to CSU, see counselor for limitations.

CDECE 61 3.0 units
Children/Multicultural Classroom D3
3 hours lecture.
Grading: letter grade or credit/no credit
Philosophy, principles and methods relating to the teaching of multicultural young children and their parents. Meets state licensing requirements for program curriculum D3. Transfer Status: Transferable to CSU, see counselor for limitations.

CDECE 66 3.0 units
The Preschool Child D3
2 hours lecture, 3 hours laboratory
Grading: letter grade.
A study of the physical, social, emotional and cognitive development of the preschool child in a variety of planned programs for preschool children, emphasizing the interaction of parents, children and teachers. Three hours of observation/participation at the Child Development Center are required each week. Meets state licensing requirements for program, curriculum D3. Proof of a negative TB test is required to participate and observe in children's licensed program. Transfer Status: Transferable to CSU, see counselor for limitations.

CDECE 68 2.0 units
Early Childhood Ed Practicum D3
2 hours lecture.
Prerequisite: CDECE45 or 47 and 48, 54, 55, 57, 58, 66
Corequisite: CDECE68L
Grading: letter grade or credit/no credit
Provides an opportunity to plan, prepare, execute and evaluate various experiences with preschool age children. Includes learning specific techniques of working with children, parents and staff, procedures necessary for maintenance and use of equipment and the planning of curriculum for early childhood education programs. Transfer Status: Transferable to CSU, see counselor for limitations.

CDECE 68L 1.0 unit
Early Childhood Ed Practicum-Lab D3
3 hours laboratory
Corequisite: CDECE68
Grading: letter grade.
A lab experience working with young children at a Child Development Center on either the Pacific Coast or the Liberal Arts Campus. Proof of a negative TB test and fingerprint clearance required to participate in children's licensed program. Transfer Status: Transferable to CSU, see counselor for limitations.

CDECE 70AD 1.0 unit
Work Experience Issues — Child Development
1 hour lecture.
Corequisite: Enrollment in at least seven units including CDECE70AD and 71AD.
Grading: letter grade or credit/no credit
Seminar related to work experience. Discussion of work experience objectives, career goals, employment search, communication skills and problem solving. Transfer Status: Transferable to CSU, see counselor for limitations. Course articulated with LBUSD.

CDECE 71AD 1.0 unit
Work Experience — Child Development
4.1 hours laboratory
Corequisite: Enrollment in at least seven units including CDECE71AD, 72AD or 73AD and 70AD.
Grading: letter grade or credit/no credit
An extension of vocational learning experiences through employment or volunteer activities directly related to the occupational goal or career in early childhood or school age child care. Transfer Status: Transferable to CSU, see counselor for limitations.

CDECE 72AD 2.0 units
Work Experience — Child Development
8.3 hours laboratory
Corequisite: Enrollment in at least seven units including CDECE70AD and 72AD.
Grading: letter grade or credit/no credit
An extension of vocational learning experiences through employment or volunteer activities directly related to the occupational goal or career in early childhood or school age child care. Transfer Status: Transferable to CSU, see counselor for limitations.

CDECE 73AD 3.0 units
Work Experience — Child Development
12.5 hours laboratory
Corequisite: Enrollment in at least seven units including CDECE70AD and 73AD.
Grading: letter grade or credit/no credit
An extension of vocational learning experiences through employment or volunteer activities directly related to the occupational goal or career in early childhood or school age child care. Transfer Status: Transferable to CSU, see counselor for limitations.

CDECE 81 2.0 units
Working with Parents
2 hours lecture.
Grading: letter grade or credit/no credit
A study of principles and techniques for working with parents in community and school programs. A survey of background for understanding parent/child relationships in the changing social environments. Emphasizes developing skills and competencies which promote optimum cooperation between the school and the family. Transfer Status: Transferable to CSU, see counselor for limitations.

**CDECE 200A**  
3.0 units  
Teaching Aids  
3 hours lecture.  
Grading: letter grade or credit/no credit  
A study of appropriate activities for two to five year olds in early childhood settings. The focus is on lesson planning and developing teaching aids.

**CDECE 200B**  
3.0 units  
Lesson Plans  
3 hours lecture.  
Grading: letter grade or credit/no credit  
A study of appropriate activities for two to five year olds in early childhood settings. The focus is on lesson planning and developing aids.

**CDECE 262**  
1.0 unit  
Rhythm Instruments in Early Childhood D3  
1 hour lecture.  
Grading: letter grade or credit/no credit  
A study of the use of various rhythm instruments by young children in early childhood education programs. Play along accompaniments, exploration of simple rhythms, imitation of speech patterns and body rhythms and the construction and use of commercial and homemade instruments are included. Fulfills state licensing requirements for program, curriculum.

**CDECE 263**  
1.0 unit  
Autoharp & Bells in Early Childhood D3  
1 hour lecture.  
Grading: letter grade or credit/no credit  
Designed to demonstrate the use of the autoharp and bells in a preschool setting. Specific instruction is given for the use of these instruments in: song accompaniment, group experiences, informal exploration, story telling and special effects.

**CDECE 431AD**  
0.5 units  
Mentor Seminar  
0.5 hours lecture.  
Grading: credit/no credit  
A seminar for early childhood mentors to explore issues related to their role as supervisors of beginning teachers. Seminar content will be individualized. For mentors who have been selected into the California Early Childhood Mentor Teacher Program.

B.E.S.T (Building Educational Success Through the Arts) Music for preschool children is designed as an enrichment class for the experienced child development student. Emphasizes musical techniques to use with children based on curriculum from the Wolf Trap Institute for Early Learning Through the Arts. Artists from the Education Division of the Performing Arts Center of Los Angeles County will demonstrate performance skills and techniques of involving children in musical activities. Lecture topics will relate music to literacy, problem solving, conflict resolution, brain development and diversity.

**CDECE 800A**  
0.5 units  
Special Topics in ECE  
0.5 hours lecture.  
Grading: credit/no credit  
A study of situations related to the special topic. Special topics include but are not limited to the following: school age child care, curriculum in early childhood, organization of day care centers and supervision responsibilities in early childhood settings.

**CDECE 800B**  
0.5 units  
Special Topics in ECE  
0.5 hours lecture.  
Grading: credit/no credit  
A study of situations related to the special topic. Special topics include but are not limited to the following: school age child care, curriculum in early childhood, organization of day care centers and supervision responsibilities in early childhood settings.

**CDFDC 212**  
3.0 units  
Family Child Care Management  
3 hours lecture.  
Grading: letter grade or credit/no credit  
Assists persons planning to become or currently involved in the day care of children in the home.

**CDLL 51A**  
2.0 units  
Ecology of Early Childhood — Whole Child  
1 hour lecture, 4 hours laboratory  
Grading: letter grade or credit/no credit  
A study of child development research and theory from birth to twenty-nine months. Emphasizes physical, cognitive, social/emotional and language development. Proof of a negative TB test required for participation and observation in the children’s program. Students participating without a child must also complete fingerprint clearance to participate. Transfer Status: Transferable to CSU, see counselor for limitations.
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<td>CDLL 52A</td>
<td>2.0</td>
<td>Preschool Child Techniques</td>
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<td>1 hour lecture, 4 hours laboratory</td>
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<td>A study of current concepts and research in early childhood education through lectures and lab participation. Designed for child development majors, early childhood education majors and parents. Proof of a negative TB test required for participation and observation in the children’s program. Students participating without a child must also complete fingerprint clearance to participate. <strong>Transfer Status: Transferable to CSU, see counselor for limitations.</strong></td>
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</table>
CDLL 231D  2.0 units
Practicum for Working with Parents
1 hour lecture, 4 hours laboratory
Grading: letter grade or credit/no credit
Plan preschool/pre-kindergarten experiences for parents through lecture and lab participation. Proof of a negative TB test required for participation and observation in the Children’s Program. Students participating without a child must also complete a fingerprint clearance to participate.

CDLL 232A  0.5 units
Organizing ECE Interest Centers
0.2 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
Plan interest centers for children participating at the Child Development Centers. Emphasizes summertime activities, i.e., water play, carpentry, field trips. (Normally offered during summer sessions.) Proof of negative TB test required for participation and observation in the children’s program. Students participating without a child must also complete fingerprint clearance to participate.

CDLL 232B  0.5 units
Organizing ECE Interest Centers
0.2 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
Plan interest centers for children participating at the Child Development Centers. Emphasizes summertime activities, i.e., water play, carpentry, field trips. (Normally offered in summer sessions.) Proof of negative TB test required for participation and observation in the children’s program. Students participating without a child must also complete fingerprint clearance to participate.

CDLL 232C  0.5 units
Organizing ECE Interest Centers
0.2 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
Plan interest centers for children participating at the Child Development Centers. Emphasizes summertime activities, i.e., water play, carpentry, field trips. (Normally offered in summer sessions.) Proof of negative TB test required for participation and observation in the children’s program. Students participating without a child must also complete fingerprint clearance to participate.

CDLL 232D  0.5 units
Organizing ECE Interest Centers
0.2 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
Plan interest centers for children participating at the Child Development Centers. Emphasizes summertime activities, i.e., water play, carpentry, field trips. ( Normally offered in summer sessions.) Proof of a negative TB test required for participation and observation in the children’s program. Students participating without a child must also complete fingerprint clearance to participate.

CDLL 603  0.0 units
LBCC Child Development Centers Particip
6 hours laboratory
Grading: no grade awarded

A non-credit lab experience for students participating in LBCC Child Development Center Demonstration Lab Schools, including child care in order to provide guided education and observation.

CHILD DEVELOPMENT,
PARENT EDUCATION

CDPE 200AD  0.5 units
Infant Parent Education
0.5 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
Formerly 301AD. For parents to study the growth and development of their children in a lab setting. Lectures and discussions focus on the social, intellectual, physical and personality development of infants who are four months to walking, approximately twelve months.

CDPE 201AD  1.0 unit
Infant Parent Education
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Designed for parents to study the growth and development of their children in a lab setting. The lectures and discussions focus on the social, intellectual, physical and personality development of infants approximately four months to walking, approximately twelve months.

CDPE 202AD  1.0 unit
Toddler Parent Education
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Designed for parents to study the growth and development of their children in a lab setting. The lectures and discussions focus on the social, intellectual, physical and personality development of toddler children who are walking, approximately twelve months to 24 months.

CDPE 203AD  1.0 unit
Preschool Parent Education
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Designed for parents to study the growth and development of their children in a lab setting. The lectures and discussions focus on the social, intellectual, physical and personality development of children two to three years old.

CDPE 204AD  1.0 unit
Preschool Parent Education
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Designed for parents to study the growth and development of their children in a lab setting. The lectures and discussions focus on the social, intellectual, physical and personality development of children three-to four-years old.

CDPE 205AD  1.0 unit
Preschool Parent Education
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Designed for parents to study the growth and development of their children in a lab setting. The lectures and discussion focus on the social, intellectual, physical and personality development of children four-to five-years old.
**Courses of Instruction**

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<th>Title</th>
<th>Description</th>
</tr>
</thead>
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<tr>
<td>CDPE 406A</td>
<td>3.0</td>
<td>Foster Care Education for Foster Parents</td>
<td>3 hours lecture. Grading: letter grade or credit/no credit. A study of human growth and development with special emphasis on the foster child and foster parents. Behavior problems, discipline, social interactions, community resources and ways of helping the child leave the foster home will be emphasized.</td>
</tr>
<tr>
<td>CDPE 406A2</td>
<td>1.0</td>
<td>Foster Care Education for Foster Parents</td>
<td>1 hour lecture. Grading: letter grade or credit/no credit. A study of human growth and development with special emphasis on foster children and foster parents. Behavior problems, discipline, social interactions, community resources and ways of helping children leave the foster home will be emphasized.</td>
</tr>
<tr>
<td>CDPE 406A3</td>
<td>1.5</td>
<td>Foster Care Education for Foster Parents</td>
<td>1.5 hours lecture. Grading: letter grade or credit/no credit. A study of human growth and development with special emphasis on foster children and foster parents. Behavior problems, discipline, social interactions, community resources and ways of helping children leave the foster home will be emphasized.</td>
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<td>CDPE 406A4</td>
<td>1.0</td>
<td>Foster Care Education for Foster Parents</td>
<td>1 hour lecture. Grading: letter grade or credit/no credit. A study of human growth and development with special emphasis on the foster child and foster parents. Behavior problems, discipline, social interactions, community resources and ways of helping the child leave the foster home will be emphasized.</td>
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<tr>
<td>CDPE 406A5</td>
<td>1.0</td>
<td>Foster Care Education for Foster Parents</td>
<td>1 hour lecture. Grading: letter grade or credit/no credit. A study of human growth and development with special emphasis on the foster child and foster parents. Behavior problems, discipline, social interactions, community resources and ways of helping the child leave the foster home will be emphasized.</td>
</tr>
<tr>
<td>CDPE 406A6</td>
<td>1.0</td>
<td>Foster Care Education for Foster Parents</td>
<td>1 hour lecture. Grading: letter grade or credit/no credit. A study of human growth and development with special emphasis on the foster child and foster parents. Behavior problems, discipline, social interactions, community resources and ways of helping the child leave the foster home will be emphasized.</td>
</tr>
<tr>
<td>CDPE 406A7</td>
<td>1.0</td>
<td>Foster Care Education for Foster Parents</td>
<td>1 hour lecture. Grading: letter grade or credit/no credit. A study of human growth and development with special emphasis on the foster child and foster parents. Behavior problems, discipline, social interactions, community resources and ways of helping the child leave the foster home will be emphasized.</td>
</tr>
<tr>
<td>CDPE 605</td>
<td>0.0</td>
<td>Parenting Skills</td>
<td>1 hour lecture. Grading: no grade awarded. A study of parent/child relationships.</td>
</tr>
<tr>
<td>CDPE 606</td>
<td>0.0</td>
<td>Parent Education for Foster Parents</td>
<td>3 hours lecture. Grading: no grade awarded. A study of the parenting skills and knowledge needed to aid the adaptation of children into foster homes.</td>
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**CHILD DEVELOPMENT, SCHOOL AGE**

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<tbody>
<tr>
<td>CDSA 62</td>
<td>2.0</td>
<td>Creative Express for School Age Children</td>
<td>2 hours lecture. Grading: letter grade. A study of principles, methods and materials which will encourage creative expression in school children. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>CDSA 63</td>
<td>3.0</td>
<td>The School Age Child</td>
<td>2 hours lecture, 3 hours laboratory. Grading: letter grade. A study of the physical, social, emotional and cognitive development of the school age child, emphasizing the interaction of children and teachers in child care settings. Three hours of observation/participation at approved sites are required each week. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>CDSA 65</td>
<td>3.0</td>
<td>School Age Curriculum</td>
<td>3 hours lecture. Grading: letter grade. A survey of curriculum and activities appropriate for the school age child. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>CDSA 75</td>
<td>3.0</td>
<td>School Age Child Care Practicum D5</td>
<td>2 hours lecture, 3 hours laboratory. Prerequisite: CDECE 45 or 47, CDSA 62, 63 and 65. Grading: letter grade. An opportunity to plan, prepare, present and evaluate curriculum activities offered to school-age children (6-12) in various public and private school-age child care settings. Proof of negative TB test and fingerprint clearance required to participate in children’s licensed program. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
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**CHILD DEVELOPMENT, SPECIAL EDUCATION**

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| CDSED 5     | 3.0   | Community Resources/Special Education | 3 hours lecture. Grading: letter grade or credit/no credit. Briefly surveys disabling conditions and acquaints students with community agencies, schools and services available to individuals with exceptional needs. The
Courses of Instruction

affective aspects of disabilities are also considered. Field trips to special educational classrooms and agencies will be an integral part of the student’s experience. Transfer Status: Transferable to CSU, see counselor for limitations.

**CDSED 67 3.0 units**
The Exceptional Child
3 hours lecture.
Grading: letter grade or credit/no credit
A survey course examining each of the areas of exceptionality. Emphasizes the educational, social and emotional development of the exceptional child during the school years. Early intervention and transition to adulthood will be covered briefly. Transfer Status: Transferable to CSU, see counselor for limitations.

**CDSED 69 3.0 units**
Special Education Practicum
2 hours lecture, 3 hours laboratory
Prerequisite: CDSED67, 5, 70 and CDECE45 or 47
Grading: letter grade.
Plan, prepare, execute and evaluate various experiences with disabled individuals in schools and agencies in the greater Long Beach area. Learn specific techniques of working with children, adults, parents and staff to provide an appropriate experience for the disabled individual. Transfer Status: Transferable to CSU, see counselor for limitations.

**CDSED 70 3.0 units**
Teaching Exceptional Students
3 hours lecture.
Grading: letter grade.
A systematic study of developmentally appropriate learning in the inclusive classroom to include teaching methods and materials used in instruction of children with special needs. Development and interpretation of an Individualized Education Program (IEP) as well as specific areas of curriculum development will be addressed. Transfer Status: Transferable to CSU, see counselor for limitations.

**CHINESE**

**CHIN 1 (CAN CHIN 2) 5.0 units**
Elementary Chinese 1
5 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
Intro to the Chinese language (Mandarin). Learn comprehension, speaking, reading and writing, the study of grammar, vocabulary and pronunciation, etc. Emphasizes the traditions and customs of China. Not recommended for native speakers. Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.

**CHIN 1A 3.0 units**
Elementary Chinese 1A
3 hours lecture.
Grading: letter grade or credit/no credit
The first half of CHIN 1. Intro to the Chinese Language (Mandarin). Learn comprehension, speaking, reading and writing, the study of grammar, vocabulary and pronunciation, etc. Emphasizes traditions and the customs of China. This course in combination with CHIN 1B is equivalent to CHIN 1. Not recommended for native speakers. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**CHIN 1B 2.0 units**
Elementary Chinese 1B
2 hours lecture, 1 hour laboratory
Prerequisite: CHIN 1A
Grading: letter grade or credit/no credit
The second half of CHIN 1, Intro to the Chinese Language (Mandarin). Learn comprehension, speaking, reading and writing, the study of grammar, vocabulary and pronunciation, etc. Emphasizes traditions and the customs of China. This course in combination with CHIN 1A is equivalent to CHIN 1. Not recommended for native speakers. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**CHIN 2 (CAN CHIN 4) 5.0 units**
Elementary Chinese 2
5 hours lecture, 1 hour laboratory
Prerequisite: CHIN 1.
Grading: letter grade or credit/no credit
Increased emphasis is on the development of oral communication, reading and writing skills. Use of materials dealing with contemporary issues in the Chinese world. Not recommended for native speakers. Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.

**CITIZENSHIP**

**CIT 601 0.0 units**
Citizenship
3 hours lecture.
Grading: no grade awarded
Rapid review of the history of the United States, Constitution, the government of the United States and state and local government. Designed for foreign-born persons preparing for the naturalization exam.

**COMMUNICATIVE DISORDERS**

**COMDI 1A 3.0 units**
Signing Exact English (S.E.E. Signs) Beg
3 hours lecture.
Grading: letter grade or credit/no credit
For the student planning to work with hearing impaired children in an educational setting. It is possible to obtain a Certificate of Proficiency upon completion of two semesters of S.E.E. Transfer Status: Transferable to CSU, see counselor for limitations.

**COMDI 1B 3.0 units**
Signing Exact English (S.E.E. Signs) Beg
3 hours lecture.
Grading: letter grade or credit/no credit
For the student planning to work with hearing impaired children in an educational setting. It is possible to obtain a Certificate of Proficiency upon completion of two semesters of S.E.E. Transfer Status: Transferable to CSU, see counselor for limitations.

**COMDI 2A 3.0 units**
American Sign Language, Beginning
3 hours lecture.
Grading: letter grade or credit/no credit
Instruction in the language system most used by deaf persons, instruction and practice in the fundamentals of signing (ASL) and finger spelling for communicating with the deaf. Includes development of signed conversational skills and an overview of the culture of
the deaf. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**COMDI 2B** 3.0 units
American Sign Language, Beginning
3 hours lecture.
Grading: letter grade or credit/no credit
Instruction in the language system most used by deaf persons, instruction and practice in the fundamentals of signing (ASL) and finger spelling for communicating with the deaf. Includes development of signed conversational skills and an overview of the culture of the deaf. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**COMDI 3A** 3.0 units
American Sign Language, Intermediate
3 hours lecture.
Prerequisite: COMDI2A-B.
Grading: letter grade or credit/no credit
Intermediate instruction for the continuing student of ASL and finger spelling. The purpose is to increase signing vocabulary, emphasizing practice in improving expressive and receptive conversational skills with the goal of increasing smoothness, clarity and speed of signing. Hearing loss, history of sign language, deaf culture and deaf psychology will also be introduced. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**COMDI 3B** 3.0 units
American Sign Language, Intermediate
3 hours lecture.
Prerequisite: COMDI2A-B.
Grading: letter grade or credit/no credit
Intermediate instruction for the continuing student of ASL and finger spelling. Increase signing vocabulary, emphasizing practice in improving expressive and receptive conversational skills with the goal of increasing smoothness, clarity and speed of signing. Hearing loss, history of sign language, deaf culture and deaf psychology will also be introduced to students. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**COMDI 633** 0.0 units
Beginning Speech Reading (Lip Reading)
2 hours laboratory
Grading: no grade awarded
Learn lip reading techniques for the hearing impaired. Special attention is given to communication difficulties of the hearing.

**COMDI 634** 0.0 units
Intermediate Speech Reading (Lip Reading)
2 hours laboratory
Grading: no grade awarded
An intermediate degree of proficiency in lip reading skills to enhance communication for the hearing impaired.

**COMDI 678** 0.0 units
Speech and Hearing Correction
3 hours laboratory
Grading: no grade awarded
For students with communication disabilities that affect articulation, voice or hearing. This includes stuttering, aphasia and other disorders which inhibit the ability to understand or effectively approximate a standard American dialect. Will be expected to participate in a lab program at the LBCC/Speech and Hearing Clinic.

**COMPUTER PROFICIENCIES FOR ACADEMIC SUCCESS**

**CPAS 1B** 1.0 unit
Using the Mac as a Tool for Learning
0.5 hours lecture, 1.5 hours laboratory
Grading: credit/no credit
Provides the minimum ability to use a Macintosh computer and integrated software products to successfully perform classroom tasks. Included are word processing, spreadsheet, graphics and data base applications. Satisfies the computer proficiency graduation requirement. Transfer Status: Transferable to CSU, see counselor for limitations.

**CPAS 10** 1.0 unit
Advanced Computer Skills for Learning
0.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: Basic computer experience in word processing, spreadsheets and graphics.
Grading: credit/no credit
An advanced course in which you will learn to use the computer effectively to prepare documents for any class using word processing, spreadsheets, graphics manipulation, web presentations, Internet uses and resources. Transfer Status: Transferable to CSU, see counselor for limitations.

**CPAS 600** 0.0 units
Basic Computer Skills for Learning
1 hour laboratory
Grading: no grade awarded
Through computer-assisted instruction in a lab environment, students will learn to access and utilize information technology to successfully complete their coursework in their other college courses.

**COMPUTER & INFORMATION SCIENCE**

**COMIS 1A** 1.0 unit
Using the IBM Microcomputer
0.5 hours lecture, 1.5 hours laboratory
Grading: credit/no credit
Provides a minimum ability to use microcomputers to do useful work. Included are word processing, spreadsheet analysis and simple data base and telecommunications applications. Satisfies the computer proficiency graduation requirement. Transfer Status: Transferable to CSU, see counselor for limitations.

**COMPUTER & BUSINESS INFORMATION SYSTEMS**

**CBIS 2** 3.0 units
Help Desk Technician — Advanced MS Office
2 hours lecture, 3 hours laboratory
Prerequisite: CBIS 6 or CAOTC34 and one of the following: CAOTC41E-F or CAOTC44D or CAOTC39A
Grading: letter grade.
The second class in a three class series that extends the student's knowledge of a popular word processor, spreadsheet, database, and presentation software package. Topics include advanced office concepts and skills, help desk concepts, and an introduction to visual basic application programming. This class will also prepare the students for Microsoft Office User Specialists and the Desktop Applications Developer certification examinations. Transfer Status: Transferable to CSU, see counselor for limitations.

CBIS 3A 1.0 unit
Operating Systems
1 hour lecture, 0.5 hours laboratory
Grading: letter grade.
An operating system (OS) such as Disk Operating System (DOS) is the mechanism employed by application software users, computer programmers and anyone wishing to upgrade or maintain their own personal computer. Presents an up-to-date overview of computers and addresses basic hardware and software concepts. Topics covered include operating system functions, utilities and OS commands. Transfer Status: Transferable to CSU, see counselor for limitations.

CBIS 3B 1.0 unit
Advanced Operating Systems-Windows 9X
1 hour lecture, 0.5 hours laboratory
Prerequisite: CBIS 3A
Grading: letter grade.
Presents an up-to-date overview of computers and covers advanced hardware and software operating system concepts. Includes managing and backing up hard disks, using troubleshooting tools and writing batch files. Learn to customize, configure and optimize computer systems by executing utilities, loading Terminate and Stay Resident (TSR) programs, managing memory and installing device drivers. Transfer Status: Transferable to CSU, see counselor for limitations.

CBIS 6 4.0 units
Introduction to Information Systems
3 hours lecture, 3 hours laboratory
Grading: letter grade.
The general principles and applications of computers. Intro to computer hardware, the concept of local area network, software (word processing, spreadsheet and data base applications), procedures, computer systems and the integration of these applications in business and industry. Also, the fundamentals of problem solving techniques and programming in high level programming languages are discussed and applied with "hands on" experience using IBM compatible microcomputers. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

CBIS 7 1.0 unit
Business Programming Logic and Design
1 hour lecture, 0.5 hours laboratory
Prerequisite: CBIS 6
Grading: letter grade.
Comprehensive coverage of business application-oriented logic for programming design. The following areas covered include flowchart design, validity checking, extracting and manipulating data from single and multidimensional tables and arrays, internal sorting and sequential file processing. Prepares the student for additional programming classes. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

CBIS 11 3.0 units
Computer Programming/C++I
3 hours lecture, 2 hours laboratory
Prerequisite: MATH 110 or 110B or qualification through the Math assessment process.
Recommended Preparation: CBIS 6
Grading: letter grade.
An intro course in C++ programming language, a problem solving technique used in modern software technology. The features of "C++" that support the development of small and large systems are included, thus providing a method for prototyping the commercial software development in business and industry. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

CBIS 12 3.0 units
Computer Programming/C++II
3 hours lecture, 2 hours laboratory
Prerequisite: CBIS 11
Grading: letter grade.
A second course in C++ includes: further explanation of C++ areas (data types, input/output, data structures, pointers and accessing files) and object-oriented programming (object hierarchy, operator overloading and streams). Transfer Status: Transferable to UC/CSU, see counselor for limitations.

CBIS 13 3.5 units
C++Data Structures and Algorithms
3 hours lecture, 2 hours laboratory
Prerequisite: CBIS 12 and MATH 50
Grading: letter grade.
Continues the intro to Object Oriented programming with C++ begun in CBIS 11 and 12, with an emphasis on algorithms, data structures and software engineering. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

CBIS 14A 3.5 units
Computer Programming/JAVA I
3 hours lecture, 2 hours laboratory
Prerequisite: MATH 110 or 110B or qualification through the Math assessment process.
Recommended Preparation: CBIS 6
Grading: letter grade.
An intro to the fundamentals of Object-Oriented Programming using the JAVA computer language. Includes structured programming and design techniques, creating classes and applets, using JAVA’s AWT to create multimedia applets, components and containers, I/O streams and utility classes, thread and networking and creating of client/server programs. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

CBIS 14B 3.5 units
JAVA Data Structures and Algorithms
3 hours lecture, 2 hours laboratory
Prerequisite: CBIS 14A and MATH 50
Grading: letter grade.
Courses of Instruction

Continues the intro to Object Oriented programming with JAVA begun in CBIS 14A, with an emphasis on algorithms, data structures and software engineering. Transfer Status: Transferable to CSU, see counselor for limitations.

CBIS 15 3.0 units
Computer Programming/RPG
3 hours lecture, 2 hours laboratory
Prerequisite: MATH 110 or 110B or qualification through the Math assessment process.
Recommended Preparation: CBIS 6
Grading: letter grade.
An intro to RPG (Report Program Generator) now used on IBM’s mid-range computer Application System/400 (AS/400) which contains all the features of RPGIII. Learn a problem-oriented language and gain in-depth exposure to the solutions of typical business problems and to design, code, compile and edit a program in RPG/400 to ensure reliable, predictable performance. Transfer Status: Transferable to CSU, see counselor for limitations.

CBIS 36 3.0 units
Systems Analysis and Design
2 hours lecture, 3 hours laboratory
Prerequisite: CBIS 6, 38 and one of the following CBIS 14A, 8B, 12 or 40
Grading: letter grade.
An analysis of accounting systems and procedures, form design, internal control, work simplification and uses of data processing equipment in integrated systems. Transfer Status: Transferable to CSU, see counselor for limitations.

CBIS 38 2.0 units
Data Base Concepts
2 hours lecture, 2 hours laboratory
Recommended Preparation: CBIS 6
Grading: letter grade.
Basic concepts, which include planning, design and implementation of data base systems, the study of data base management systems, the role and responsibilities of the data base administrator and processing business application programs. Transfer Status: Transferable to CSU, see counselor for limitations.

CBIS 40 3.0 units
Microsoft Word, Excel & PowerPoint
2 hours lecture, 3 hours laboratory
Prerequisite: CBIS 6
Grading: letter grade.
An intro to microcomputer integrated software. Hands-on using three popular software applications. Transfer Status: Transferable to CSU, see counselor for limitations.

CBIS 41 3.0 units
Networking Fundamentals
3 hours lecture, 1 hour laboratory
Recommended Preparation: CBIS 6, 3B
Grading: letter grade.
Learn to install, configure, upgrade and troubleshoot a computer network. Discuss local area networks, wide area networks, communications protocols, network topologies, transmission media, security and assess career opportunities in networking. Address all of the objectives of the CompTIA Network+ certification. Practice exercises will help you to prepare for the CompTIA Network+ certification exam. Transfer Status: Transferable to CSU, see counselor for limitations.

CBIS 70AD 1.0 unit
Work Experience Issues — Computers
1 hour lecture.
Corequisite: Enrollment in at least seven units including CBIS 71AD, 72AD or 73AD.
Grading: letter grade or credit/no credit
Seminars related to vocational learning experiences through employment in work experience directly related to the computer industry. Discuss work experience objectives, career goals, employment adjustment and problem areas encountered on the job. Transfer Status: Transferable to CSU, see counselor for limitations.

CBIS 71AD 1.0 unit
Work Experience — Comp Business Info Sys
4.1 hours laboratory
Prerequisite: Completion of any CBIS course.
Corequisite: Enrollment in at least seven units including CBIS 70AD and 71AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment directly related to the computer industry. Under the supervision of the instructor, master specific instructional units from the Computer Business Information Systems (CBIS) program, administer written quizzes and exams on these units, solve problems as they arise in the computer lab and tutor students. For advanced students who wish to pursue a career in the computer business information industry. May earn up to twelve units from a total of four enrollments in the work experience course. Transfer Status: Transferable to CSU, see counselor for limitations.

CBIS 72AD 2.0 units
Work Experience — Comp Business Info Sys
8.3 hours laboratory
Prerequisite: Completion of any CBIS course.
Corequisite: Enrollment in at least seven units including CBIS 70AD and 72AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment directly related to the computer industry. Under the supervision of the instructor, master specific instructional units from the Computer Business Information Systems (CBIS) program, administer written quizzes and exams on these units, solve problems as they arise in the computer lab and tutor students. For advanced students who wish to pursue a career in the computer business information industry. May earn a maximum of twelve units from a total of four enrollments in the work experience course. Transfer Status: Transferable to CSU, see counselor for limitations.

CBIS 73AD 3.0 units
Work Experience — Comp Business Info Sys
12.5 hours laboratory
Prerequisite: Completion of any CBIS course.
Corequisite: Enrollment in at least seven units including CBIS 70AD and 73AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment directly related to the computer industry. Under the supervision of the instructor, master specific instructional units from the Computer Business Information Systems (CBIS) program, administer
written quizzes and exams on these units, solve problems as they arise in the computer lab and tutor students. For advanced students who wish to pursue a career in the computer business information industry. May earn a maximum of twelve units from a total of four enrollments in the work experience course. Transfer Status: Transferable to CSU, see counselor for limitations.

**CBIS 200**
**Introduction to IBM Compatible Computers**
3 hours lecture, 2 hours laboratory
Prerequisite: CBIS 3 and 6
Grading: letter grade.
In-depth study of the IBM-compatible personal computers and its latest common components and variations. Class coverage includes 386, 486 and Pentium/Power-PC based systems, computer buses, disk controllers and computer memory concepts and components. Class lectures will be supplemented with “hands on” classroom labs using diagnostic software and tools.

**CBIS 206A**
**Navigating the Internet**
1 hour lecture, 0.5 hours laboratory
Prerequisite: COMIS1A or personal computer experience
Recommended Preparation: CBIS 6
Grading: letter grade.
Designed for anyone who wants to learn to use the Internet: people who want to use it in their work, in their studies, for recreation, for communication and those who are just curious about it. Learn how to use the Internet in a productive and satisfying way to access services, resources, information and to communicate electronically with other individuals or groups.

**CBIS 206B**
**Web Construction**
1 hour lecture, 0.5 hours laboratory
Recommended Preparation: CBIS 206A
Grading: letter grade.
Design, create, format and install Web pages. Includes creating scripts, using browsers, connecting files, linking, using HTML language and using tables and images.

**CBIS 206C**
**World Wide Web Database Programming**
1.5 hours lecture.
Prerequisite: CBIS 38 and 206B
Grading: letter grade.
An advanced web page construction course focusing on connecting web sites to a database. Includes Perl, CGI, Internet Database Connector (IDC), Open Database Connectivity (ODBC) and Microsoft Internet Information Server (MSIIS).

**CBIS 208A**
**Visual BASIC Programming**
3 hours lecture, 3 hours laboratory
Prerequisite: CBIS 6
Grading: letter grade.
Fundamental programming concepts emphasizing problem solving and structured techniques. Includes creating sequential disk files, report formatting, interactive programming, array search, menus, sorting and routines. Proper programming, documentation and structure are emphasized. Visual BASIC language using IBM PCs.

**CBIS 208B**
**Advanced Visual Basic Programming**
4.0 units
Advanced Visual Basic programming course covering such topics as advanced methods for object, database, client/server and internet programming. The main focus will be on database design and implementation tasks using VB, basic database theory, designing and building VB programs to access Microsoft Access and SQL servers, techniques for designing and enhancing user interfaces using class modules and Active X components and developing applications for the internet.

**CBIS 208C**
**Visual Basic Application Programming**
3.0 units
Visual Basic Application Programming
2 hours lecture, 3 hours laboratory
Prerequisite: CBIS 208B
Recommended Preparation: CBIS 2
Grading: letter grade.
An advanced Visual Basic programming course on the writing of Visual Basic for Applications (VBA) programs for the Microsoft Office Suite. The procedures and programs created will demonstrate how to customize and enhance the applications included in MS Office. Topics covered include how to write program procedures using the sequence, selection and repetition programming structures, as well as how to create and implement dialog boxes, lists and option/check box controls in Office Word, Excel, Access and Outlook.

**CBIS 210A**
**Novell Administration & Upgrades**
3.0 units
Novell Administration & Upgrades
2 hours lecture, 3 hours laboratory
Prerequisite: CBIS 41
Recommended Preparation: CBIS 208A
Grading: letter grade.
Introduces administrative concepts and tasks. Explains the responsibilities of the functions and features of NetWare. Provides the technical tools needed, including NetWare utilities. Prepares the student for the Novell NetWare System Administrator Certification exam offered by Novell.

**CBIS 210B**
**Novell Adv Administration & Upgrades**
1.5 units
Novell Adv Administration & Upgrades
1 hour lecture, 1.5 hours laboratory
Prerequisite: CBIS 210A
Grading: letter grade.
Intro to advanced administrative concepts and tasks. Enhances the network management and monitoring skills. Provides a technical foundation for participants pursuing the CNE and CNI Programs. Intended to prepare the student for the Novell Advanced Administrator exam offered by Novell.

**CBIS 215**
**Novell NetWare Installation/Config.**
1.5 units
Novell NetWare Installation/Config.
1 hour lecture, 1.5 hours laboratory
Prerequisite: CBIS 210B
Grading: letter grade.
Installation of a network operating system, upgrading from prior versions, installing workstation software, upgrading and configuring the system software. Includes
Courses of Instruction

network hardware requirements analysis. Hands-on exercises to perform the installation and upgrades.

**CBIS 220** 3.0 units
**i-Net+ Internet Technologies**
3 hours lecture, 1 hour laboratory
Recommended Preparation: CBIS 6
Grading: letter grade or credit/no credit
Teaches the baseline technical knowledge needed to enter an Internet industry oriented career. After course completion, will be prepared to take the industry standard i-Net+ certification test.

**CBIS 222A** 3.0 units
**Advanced Java for Sun Certification I**
2.5 hours lecture, 2 hours laboratory
Prerequisite: CBIS 14A
Grading: letter grade or credit/no credit
A course in advanced java programming designed to teach the skill set required to pass the Sun Microsystems java developer certification exam. Also gives the student a solid skill set to successfully enter a java programming career.

**CBIS 223** 3.0 units
**Unix/Linux Fundamentals**
2 hours lecture, 3 hours laboratory
Prerequisite: MATH 110 or 110B or qualification through the Math assessment process.
Recommended Preparation: CBIS 6
Grading: letter grade.
Prepares students to work with Linux as an applications programmer, a computer operator or system administrator. Includes an overview of basic operating systems concepts, a history of Unix and its influence on modern operating systems, basic internal structure, details of Unix file system structures, pipes, filters and redirection, scripts, images and processes, shells, time-slicing and interrupts, memory management and Unix internals.

**CBIS 225** 2.0 units
**Windows 2000 Professional**
2 hours lecture
Recommended Preparation: CBIS 41
Grading: letter grade or credit/no credit
Learn to install, configure and administer Windows 2000 Professional in a networking environment. Prepares the student to take the MCSE Certification Exam "O-210.

**CBIS 226** 2.0 units
**Windows 2000 Server**
2 hours lecture.
Prerequisite: CBIS 225
Grading: letter grade or credit/no credit
Learn to install, configure and administer Windows 2000 Server in a networking environment. Prepare to take the MCSE Certification Exam "O-215.

**CBIS 227** 2.0 units
**Windows 2000 Networking**
2 hours lecture.
Prerequisite: CBIS 225
Grading: letter grade or credit/no credit
Learn to install, configure and administer Windows 2000 networking services and protocols. Prepare to take the MCSE Certification Exam "O-216.

**CBIS 228** 2.0 units
**Windows 2000 Directory Services**
2 hours lecture.
Prerequisite: CBIS 226
Grading: letter grade or credit/no credit

**CBIS 234** 3.0 units
**AS/400 Computer Operations**
3 hours lecture, 2 hours laboratory
Recommended Preparation: CBIS 6
Grading: letter grade.
An intro to the operation of midrange business computer systems. Operating systems and systems software are described in general and in detail. Learn to operate the computer and related devices utilizing the campus’s IBM AS/400 facilities.

**CBIS 239AD** 3.5 units
**Oracle Designer**
3 hours lecture, 2 hours laboratory
Prerequisite: CBIS 38
Grading: letter grade.
An intro to database development using database management client/server tools to prototype and develop enterprise-wide information systems. Topics include installing client/server database development tools, repository administration, process modeling, system modeling, systems design, client application generation, server generation and using current database management designer tools.

**CBIS 240A** 1.0 unit
**Unix Fundamentals**
1 hour lecture, 1 hour laboratory
Prerequisite: CBIS 41
Grading: letter grade or credit/no credit
Covers the basics of the Unix operating system. It presents basic commands, creation and manipulation of directories and files, basic network commands and using the Unix shell to streamline command execution.

**CBIS 240B** 2.0 units
**Unix — Systems Administration I**
2 hours lecture, 1 hour laboratory
Prerequisite: CBIS 240A
Grading: letter grade or credit/no credit
Covers the basics of Unix systems administration. It presents basic Unix administration terms and functions. Covers adding and managing users and groups, setting up security, working with file systems, managing printers and installing the operating system.

**CBIS 240C** 2.0 units
**Unix — Systems Administration II**
2 hours lecture, 1 hour laboratory
Prerequisite: CBIS 240B
Courses of Instruction

Grading: letter grade or credit/no credit
Covers more advanced features of Unix systems administration. It presents Unix administration terms and functions as implemented in a client server environment. Covers the configuration of various network naming services, management console operations, network monitoring, event logging and automating the installation process across a network.

CBIS 242  2.5 units
Programming Introduction to Oracle
2 hours lecture, 2 hours laboratory
Prerequisite: CBIS 6 or employer’s letter verifying a minimum of six months experience using Microsoft Windows and computer programming within the last two years.
Grading: letter grade.
Provides an intro to the relational database programming language, Structured Query Language (SQL), using Oracle database administration system. Includes an intro to relational database design and database administration topics. Hands-on programming skills using SQL Data Manipulation Language and Data Definition Language, as well as Oracle PL/SQL, will be emphasized. Designed to help students pass the Oracle Test, Intro to Oracle: SQL and PL/SQL.

CBIS 243  2.0 units
Programming Oracle Program Units
1.5 hours lecture, 1.5 hours laboratory
Prerequisite: CBIS 242
Grading: letter grade.
Covers how to write PL/SQL procedures, functions and packages in both the Oracle Procedure Builder and SQL *Plus environments. Gain knowledge about the creation of PL/SQL program units and database triggers, as well as various Oracle-supplied packages. Also helps to prepare for the Oracle PL/SQL Program Units certification exam. Upon completion of this course, students are ready to take Oracle Developer Build Forms I/II or Developer Build Reports courses.

CBIS 244  2.5 units
Develop Oracle Forms
2 hours lecture, 2 hours laboratory
Prerequisite: CBIS 243
Grading: letter grade or credit/no credit
Enables students to create Oracle forms, with extensive coverage of triggers. Also includes: wizards, data blocks, the debugger; fields; sub-routines; property manipulation; menus; calling forms; variables and the Internet Developer Suite as it pertains to forms. Helps prepare for the Oracle Certified Exam, Oracle Developer: Build Forms I/II.

CBIS 245  2.0 units
Develop Oracle Reports
1.5 hours lecture, 1.5 hours laboratory
Prerequisite: CBIS 243
Grading: letter grade or credit/no credit
Enables you to create Oracle reports in a variety of styles and to customize them to meet specific business requirements. Also covered are: object navigator, report wizard; templates; layout editor; parameters; list of values (LOV); triggers; report types and the Internet Developer suite as it pertains to reports. Helps prepare for the Oracle Certified Exam, Oracle Developer: Build Reports.

CBIS 250  1.0 unit
Computer Careers & Certification Paths
1 hour lecture, 0.5 hours laboratory
Prerequisite: CBIS 6
Grading: letter grade.
Educates students in the fine art of career-building within the Information Technology (IT) field and can be used by individuals deciding which career to pursue or those who know which track matches their interests and talents. Focuses on the professional characteristics involved with obtaining a position, as well as on maintaining and advancing your career once you are hired.

CBIS 260  1.0 unit
Help Desk Concepts
1.5 hours lecture.
Prerequisite: CBIS 40 and 200
Recommended Preparation: CBIS 41
Grading: letter grade.
An intro to help desk concepts and procedures. Includes help desk operations, people, process, technology and information components, as well as help desk setup, customer support and resources.

CBIS 633  0.0 units
Adaptive Computer Technology
4 hours laboratory
Grading: no grade awarded
Provides assessment, evaluation, training and instruction in the use of adaptive computer technology to students with disabilities. Access and training in adaptive computer technology will allow full participation in courses or career paths in which computers play an integral part.

CBIS 673  0.0 units
Computer Learning Improvement Center
2 hours laboratory
Grading: no grade awarded
Designed to enhance classroom instruction, provide additional lab experience for the student and to improve computer skills.

COMPUTER APPLICATIONS

CAOTC 31A  1.0 unit
Microsoft Windows Operating System, Beg.
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
This course provides an introduction to beginning Windows operating system concepts. Through hands-on practice, students will learn to use the mouse, perform electronic desktop functions including file management, rearrange and use information from the desktop, use My Computer, Explorer, various desktop accessories, Notepad, and WordPad. Transfer Status: Transferable to CSU, see counselor for limitations.

CAOTC 31B  1.0 unit
Microsoft Windows Operating System, Adv
0.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: CAOTC31A (may be taken concurrently)
Grading: letter grade or credit/no credit
Continuation of CAOTC31A. Use the control panel, object linking and embedding, multimedia and telecommunications. Transfer Status: Transferable to CSU, see counselor for limitations.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
<th>Hours Lecture</th>
<th>Hours Laboratory</th>
<th>Recommended Preparation</th>
<th>Grading</th>
<th>Transfer Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAOTC 34</td>
<td>3.0</td>
<td>Introduction to Computers &amp; Applications</td>
<td>2</td>
<td>3</td>
<td>Recommended Preparation: CAOTT233, 200 or 200A or type 25 wpm.</td>
<td>Letter grade or credit/no credit</td>
<td>Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>CAOTC 35</td>
<td>3.0</td>
<td>Microsoft Office</td>
<td>2.5</td>
<td>1.5</td>
<td>Recommended Preparation: CAOTC39A AND 41E</td>
<td>Letter grade or credit/no credit</td>
<td>Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>CAOTC 39A</td>
<td>1.0</td>
<td>Microsoft Word for Office, Beginning</td>
<td>1</td>
<td>1</td>
<td>Recommended Preparation: Type 45 wpm with five or fewer errors for five minutes.</td>
<td>Letter grade or credit/no credit</td>
<td>Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>CAOTC 39B</td>
<td>1.0</td>
<td>Microsoft Word for Office, Intermediate</td>
<td>1</td>
<td>1</td>
<td>Recommended Preparation: CAOTC39B (may be taken concurrently) and type 45 wpm with five or fewer errors for five minutes.</td>
<td>Letter grade or credit/no credit</td>
<td>Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>CAOTC 39C</td>
<td>1.0</td>
<td>Microsoft Word for Office, Advanced</td>
<td>1</td>
<td>1</td>
<td>Recommended Preparation: CAOTC39C (may be taken concurrently) and type 45 wpm with five or fewer errors for five minutes.</td>
<td>Letter grade or credit/no credit</td>
<td>Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>CAOTC 39D</td>
<td>1.0</td>
<td>Microsoft Word for Office, Expert</td>
<td>1</td>
<td>1</td>
<td>Recommended Preparation: CAOTC39D (may be taken concurrently) and type 45 wpm with five or fewer errors for five minutes.</td>
<td>Letter grade or credit/no credit</td>
<td>Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>CAOTC 41E</td>
<td>1.0</td>
<td>Excel for Windows-Beginning</td>
<td>0.5</td>
<td>1.5</td>
<td>Recommended Preparation: CAOTC41E (may be taken concurrently)</td>
<td>Letter grade or credit/no credit</td>
<td>Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>CAOTC 41F</td>
<td>1.0</td>
<td>Excel for Windows-Intermediate</td>
<td>0.5</td>
<td>1.5</td>
<td>Recommended Preparation: CAOTC41F (may be taken concurrently)</td>
<td>Letter grade or credit/no credit</td>
<td>Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>CAOTC 41J</td>
<td>1.0</td>
<td>Excel for Windows-Advanced</td>
<td>0.5</td>
<td>1.5</td>
<td>Recommended Preparation: CAOTC41J (may be taken concurrently)</td>
<td>Letter grade or credit/no credit</td>
<td>Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>CAOTC 42A</td>
<td>1.0</td>
<td>Desktop Publishing-Small Business 1</td>
<td>0.5</td>
<td>1.5</td>
<td>Recommended Preparation: CAOTC42A (may be taken concurrently)</td>
<td>Letter grade or credit/no credit</td>
<td>Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>CAOTC 42B</td>
<td>1.0</td>
<td>Desktop Publishing-Small Business 2</td>
<td>0.5</td>
<td>1.5</td>
<td>Recommended Preparation: CAOTC42B (may be taken concurrently)</td>
<td>Letter grade or credit/no credit</td>
<td>Transferable to CSU, see counselor for limitations.</td>
</tr>
</tbody>
</table>
Courses of Instruction

Transfer Status: Transferable to CSU, see counselor for limitations.

CAOTC 43A 1.0 unit
Desktop Publishing — Business 1
0.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: CAOTC31A (may be taken concurrently)
Grading: letter grade or credit/no credit
Continuation of CAOTC43A. Through hands-on practice, learn commands to set up the document, draw lines and shapes, import pictures and print camera-ready copy. Transfer Status: Transferable to CSU, see counselor for limitations.

CAOTC 43B 1.0 unit
Desktop Publishing — Business 2
0.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: CAOTC43A (may be taken concurrently)
Grading: letter grade or credit/no credit
Continuation of CAOTC43B. Through hands-on practice, learn to use electronic processing software into a document and combine text with graphics. Transfer Status: Transferable to CSU, see counselor for limitations.

CAOTC 43C 1.0 unit
Desktop Publishing — Business 3
0.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: CAOTC43B (may be taken concurrently)
Grading: letter grade or credit/no credit
Continuation of CAOTC43B. Apply special features of the software to create custom effects with text and graphics, develop style sheets and create reusable templates. Transfer Status: Transferable to CSU, see counselor for limitations.

CAOTC 43D 1.0 unit
Desktop Publishing — Business 4
0.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: CAOTC43C (may be taken concurrently)
Grading: letter grade or credit/no credit
Continuation of CAOTC43C. Produce color publications, learn advanced printing techniques, use scanners and assemble lengthy documents. Transfer Status: Transferable to CSU, see counselor for limitations.

CAOTC 44C 1.0 unit
Business Graphics — Paint/Draw Software
0.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: CAOTC31A (may be taken concurrently)
Grading: letter grade or credit/no credit
An intro to painting and/or drawing software used with PCs in the office to produce graphic images for word processing, desktop publishing and media publishing. See the class schedule for brand of software offered. Through hands-on practice, learn to use electronic drawing tools and enhance commercial clip art illustrations. Transfer Status: Transferable to CSU, see counselor for limitations.

CAOTC 44D 1.0 unit
PowerPoint for Windows, Beginning
0.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: CAOTC31A (may be taken concurrently)
Grading: letter grade or credit/no credit
An intro to presentation graphics software used with PCs in the office. See the class schedule for version of software offered. Through hands-on practice, learn to combine text and graphic images to develop computerized slide shows, transparencies and charts for group presentations. Transfer Status: Transferable to CSU, see counselor for limitations.

CAOTC 44E 1.0 unit
PowerPoint For Windows, Advanced
0.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: CAOTC44D
Grading: letter grade or credit/no credit
Designed for students who are continuing in presentation graphics software using IBM-compatible computers. Through hands-on practice, learn to use the design template to create a slide show and imbed visuals. Additional advanced topics include automating presentations. There is a research component where students will create presentations based on information gathered from electronic sources. Transfer Status: Transferable to CSU, see counselor for limitations.

CAOTC 45 2.0 units
Telecommunications and the Internet
1 hour lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Intro to telecommunication terminology, devices and software using IBM compatible microcomputers in a Windows-based operating system. See the class schedule for brand of software offered. Through hands-on practice, become familiar with sharing information on a network, sending/receiving/manipulating email, navigating the Internet, sending/receiving a facsimile (FAX) and using electronic bulletin board systems. Transfer Status: Transferable to CSU, see counselor for limitations.

CAOTC 46A 1.0 unit
Independent Project — Desktop Publishing
0.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: CAOTC43D
Grading: letter grade or credit/no credit
Advanced study using desktop publishing computer software. Work independently with faculty assistance on an application of the software to meet an actual office need. Transfer Status: Transferable to CSU, see counselor for limitations.

CAOTC 46B 1.0 unit
Independent Project — Business Graphics
0.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: CAOTC44C or 44D
Grading: letter grade or credit/no credit
Advanced study using business graphics computer software. Work independently with faculty assistance on an application of software to meet an actual office need. Transfer Status: Transferable to CSU, see counselor for limitations.

CAOTC 46C 1.0 unit
Independent Project — Telecommunications
0.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: CAOTC31A
Courses of Instruction

CAOTC 47A  3.0 units
Access for Office Applications, Begin  
2 hours lecture, 3 hours laboratory  
Recommended Preparation: Type 30 wpm or CAOTT200 or 200C  
Grading: letter grade or credit/no credit  
Hands-on relational database application course on the personal computer: creating databases, designing queries, forms and reports for retrieving, viewing and sorting information, modifying design of forms and reports with graphics. Transfer Status: Transferable to CSU, see counselor for limitations.

CAOTC 47B  3.0 units
Access for Office Applications, Intermed  
2 hours lecture, 3 hours laboratory  
Recommended Preparation: CAOTC47A and type 30 wpm or CAOTT200 or 200C.  
Grading: letter grade or credit/no credit  
Hands-on training on PCs using a software application that creates and manages a computerized database. Transfer Status: Transferable to CSU, see counselor for limitations.

CAOTC 215A  2.0 units
Microsoft Outlook  
1 hour lecture, 3 hours laboratory  
Recommended Preparation: Type 30 wpm minimum or CAOTT200 or 200C  
Grading: letter grade or credit/no credit  
Designed for students entering the field of office work, as well as presently employed students seeking upgraded skills. Provides hands-on computer training in desktop management using Microsoft Outlook.

CAOTC 215AD  3.0 units
Computerized Office Job Training  
2 hours lecture, 3 hours laboratory  
Recommended Preparation: Type 30 wpm minimum or CAOTT200 or 200C  
Grading: letter grade or credit/no credit  
For students entering the field of office work, as well as presently employed students seeking upgraded skills. Provides hands-on computer training in records management, payroll processing, inventory management, billing, bank reconciliation, accounts receivable and payable and financial statements.

CAOTC 215B  2.0 units
Electronic Records Management  
1 hour lecture, 3 hours laboratory  
Recommended Preparation: Type 30 wpm minimum or CAOTT200 or 200C  
Grading: letter grade or credit/no credit  
Designed for students entering the field of office work, as well as presently employed students seeking upgraded skills. The basics for both manual filing and electronic records management are addressed and reinforced through hands-on training in filing and address coding, indexing and retrieving records and manipulating databases using Microsoft Access.

CAOTC 220  1.0 unit
Hand-Held Electronic Organizers  
0.8 hours lecture, 0.2 hours laboratory  
Grading: letter grade or credit/no credit  
Take advantage of everything your hand-held electronic organizer (HHEO) has to offer. Make your HHEO work the way you want it to: use built-in and third party applications, keep track of your schedule and connect to the Internet. You’ll get full details on how to prepare your HHEO for the address book, the to-do list, the memo pad, a business trip, how to beam information to another HHEO and even how to go wireless. This is the perfect course for every HHEO user.

CAOTC 236A  1.0 unit
Word Processing — WordPerfect, Beginning  
1 hour lecture, 1 hour laboratory  
Recommended Preparation: Type 45 wpm with five or fewer errors for five minutes.  
Grading: letter grade or credit/no credit  
Provides equipment training with WordPerfect. Learn basic text editing including: creating, saving, printing, editing, formatting lines (centering, line spacing, justification), setting margins and indents, maintaining files through routine disk maintenance, changing fonts, and using tools such as Spell Checker, Thesaurus, and Grammatik.

CAOTC 236B  1.0 unit
Word Processing — WordPerfect, Intermed.  
1 hour lecture, 1 hour laboratory  
Recommended Preparation: CAOTC236A (may be taken concurrently) and type 45 wpm with five or fewer errors for five minutes.  
Grading: letter grade or credit/no credit  
Reinforces basic skills and training in manipulating tabs, creating headers and footers, creating footnotes and endnotes, manipulating text within and between documents, revising documents, and merging documents.

CAOTC 236C  1.0 unit
Word Processing — WordPerfect, Advanced  
1 hour lecture, 1 hour laboratory  
Recommended Preparation: CAOTC236B (may be taken concurrently) and type 45 wpm with five or fewer errors for five minutes.  
Grading: letter grade or credit/no credit  
Reinforces intermediate skills and introduces advanced formatting (hyphenation, line height alterations, special symbols, hard spaces, bookmarks, case conversion), macros, graphics, and graphic elements, columns, envelopes, labels, tables, and incorporating Web information into a document.

CAOTC 236D  1.0 unit
Word Processing — WordPerfect, Expert  
1 hour lecture, 1 hour laboratory  
Recommended Preparation: CAOTC236C (may be taken concurrently) and type 45 wpm with five or fewer errors for five minutes.  
Grading: letter grade or credit/no credit  
For students who have completed the beginning, intermediate and advanced levels of WordPerfect and wish to learn and utilize WordPerfect expert shortcuts. Helps increase efficiency, reinforce advanced skills and teaches the following: sorting and extracting text, using styles and creating outlines, indexes, lists and table of contents.
Courses of Instruction

CAOTC 240A  0.5 units
Word MOUS Proficient — User Exam Prep
0.5 hours lecture
Recommended Preparation: CAOTC39A-B
Grading: letter grade or credit/no credit
A test preparation course for the Microsoft Word proficient-user certification exam. Review all topics that appear in the guidelines for Word MOUS proficient-user certification. MOUS certified coursework will be used. Proficient-user certification indicates that individuals can process a wide range of everyday tasks easily.

CAOTC 240B  0.5 units
Word MOUS Expert — User Exam Prep
0.5 hours lecture
Recommended Preparation: CAOTC39C-D
Grading: letter grade or credit/no credit
A test preparation course for the Microsoft Word expert-user certification exam. Review all topics that appear in the guidelines for Word MOUS expert-user certification. MOUS certified coursework will be used. Expert-user certification indicates that individuals can process a wide range of everyday tasks easily as well as complex assignments which require advanced formatting and functionality.

CAOTC 241AB  0.5 units
Excel MOUS Proficient — User Exam Prep
0.5 hours lecture
Recommended Preparation: CAOTC41F or 41J
Grading: letter grade or credit/no credit
A test preparation course for the Microsoft Excel proficient-user certification exam. Review all topics that appear in the guidelines for Excel MOUS proficient user certification. MOUS certified coursework will be used. Proficient User certification indicates that individuals can process a wide range of everyday tasks easily.

CAOTC 242  0.5 units
PowerPoint MOUS Exam Preparation
0.3 hours lecture, 0.7 hours laboratory
Recommended Preparation: CAOTC44D
Grading: letter grade or credit/no credit
A test preparation course for the Microsoft PowerPoint certification exam. Review all topics that appear in the guidelines for PowerPoint MOUS certification. MOUS certified coursework will be used. Certification indicates that individuals can use the PowerPoint program to prepare a wide range of PowerPoint presentations.

CAOTC 243  0.5 units
Access MOUS Core-User Exam Prep
0.2 hours lecture, 0.8 hours laboratory
Recommended Preparation: CAOTC47A
Grading: letter grade or credit/no credit
A test preparation course for the Microsoft Access core-user certification exam. Will review all topics that appear in the guidelines for Access MOUS core-user certification. MOUS certified coursework will be used. Core-user certification indicates that individuals can process a wide range of everyday tasks easily.

CAOTC 246  3.0 units
Computer Financial Calculations
2 hours lecture, 3 hours laboratory
Recommended Preparation: Type 30 wpm or CAOTT200 or 200C
Grading: letter grade or credit/no credit
Hands-on activities which teach financial skills: setting up accounts, scheduling transactions, reconciling bank statements, tracking loans and mortgages, creating and updating investment accounts and using online services.

CAOTC 250A  2.0 units
Data Entry—Level 1
1 hour lecture, 3 hours laboratory
Recommended Preparation: Type 30 wpm
Grading: letter grade or credit/no credit
The first in a sequence of three designed for students who wish to pursue a career as a data entry operator. Through hands-on practice, learn to operate software for data entry. The key stroking goal is 6,000 strokes per hour.

CAOTC 250B  3.0 units
Data Entry—Level 2
2 hours lecture, 3 hours laboratory
Recommended Preparation: CAOTC250A; Type 35 wpm
Grading: letter grade or credit/no credit
Continuation of CAOTC250A. Through hands-on practice, continue to develop speed and accuracy skills in using forms and data of intermediate key stroking difficulty when entering data. The key stroking goal is 8,000 strokes per hour.

CAOTC 250C  3.0 units
Data Entry—Level 3
2 hours lecture, 3 hours laboratory
Recommended Preparation: CAOTC250B; Type 40 wpm
Grading: letter grade or credit/no credit
Continuation of CAOTC250B. Through hands-on practice, continue to develop speed and accuracy skills in using forms and data of advanced key stroking difficulty in entering data. The key stroking goal is 10,000 strokes per hour.

CAOTC 265  2.0 units
Computer Transcription
1 hour lecture, 3 hours laboratory
Recommended Preparation: Type 40 wpm, CAOTT201/202 or CAOTC236B or 39B
Grading: letter grade or credit/no credit
Offers hands-on training on the microcomputer in machine transcription. The dictation material is recorded on cassette tapes from which the student learns to transcribe directly onto a microcomputer.

CAOTC 617  0.0 units
Refresher Training: Office Technologies
5 hours laboratory
Grading: no grade awarded
Preparation for entry or re-entry into and for advancement in an office job. Develop, review or provide additional practice in computer applications, business English, filing, calculating machines, telephone techniques and other office knowledge and skills needed by an individual student.

COMPUTER OFFICE TECHNOLOGIES

CAOTO 15  3.0 units
Business Communications
3 hours lecture.
Grading: letter grade or credit/no credit
Emphasis is on the creation, form and usage in the preparation of all business communication, such as letters, reports, memos, email and minutes. Not open for credit to students who have completed GBUS 15 or MGMT 15. Transfer Status: Transferable to CSU, see counselor for limitations.

CAOTO 30 2.0 units
Business Calculating Machines
2 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
Instruction in the use of electronic calculators. Transfer Status: Transferable to CSU, see counselor for limitations.

CAOTO 214A 1.0 unit
Filing
1 hour lecture.
Grading: letter grade.
A self-paced program for mastering and applying alphabetic indexing for personal and business names using the ARMA rules as the records management industry standard. Both manual and computerized techniques are taught.

CAOTO 214B 1.0 unit
Filing
1 hour lecture
Recommended Preparation: CAOTO214A (may be taken concurrently).
Grading: letter grade.
A self-paced program for mastering and applying indexing rules for cross referencing, government, subject, numeric and geographic filing using ARMA rules. Both manual and computerized techniques are taught.

CAOTO 216 1.0 unit
Proofreading Skills
1 hour lecture.
Grading: letter grade or credit/no credit
Develop skills in detecting and correcting errors in office documents through the study of basic English and proofreading principles.

CAOTO 222 3.0 units
Employment Testing and Interviewing
3 hours lecture, 2 hours laboratory
Recommended Preparation: CAOTT200B or higher
Grading: letter grade.
Explore job opportunities. Prepare a winning resume and letter of application. Develop interviewing skills to make a favorable impression. Assess skill-level for successful completion of office employment tests. Enhance interview follow-up skills.

CAOTO 223 3.0 units
Legal Procedures — Litigation
3 hours lecture, 1 hour laboratory
Recommended Preparation: CAOTT200 and CAOTC236A
Grading: letter grade or credit/no credit
For the beginning worker in a legal office. Provides training in legal office routine, the setting up of legal documents in the areas of family law, real estate, worker’s compensation, wills and probate, procedures for court filing and calendaring and obtaining and completing legal forms using a legal procedures computer software program.

CAOTO 224 3.0 units
Legal Procedures
3 hours lecture, 1 hour laboratory
Recommended Preparation: CAOTT200 and CAOTC236A
Grading: letter grade or credit/no credit
For the beginning worker in a legal office. Provides training in legal office routine, the setting up of legal documents in the areas of family law, real estate, worker’s compensation, wills and probate, procedures for court filing and calendaring and obtaining and completing legal forms using a legal procedures computer software program.

CAOTO 260 1.0 unit
Business Telephone Procedures
1 hour lecture.
Grading: letter grade.
For the person who needs instruction and practice in using the telephone and state-of-the-art telephone-related equipment to its greatest potential in the business office.

CAOTO 261 3.0 units
Business English
3 hours lecture.
Grading: letter grade.
Offers thorough training in the mechanics of English: spelling, grammar, punctuation, sentence structure and word usage. Develop a business vocabulary.

CAOTO 262 1.0 unit
Professional Development for the Office
1 hour lecture.
Grading: letter grade or credit/no credit
Covers the fundamentals of human relations in the business office and develops a basic proficiency in those principles.

CAOTO 263 1.0 unit
Customer Service
1 hour lecture.
Grading: letter grade or credit/no credit
Covers the essentials of customer service in today’s economy including needs, support and relationships. The number of customer service jobs has increased greatly. Customer service positions may be found in retail stores, offices, call centers, help desks for computer software companies or web-based companies, just to name a few.

CAOTT 200 3.0 units
Beginning Typing/Keyboarding
2 hours laboratory, 3 hours laboratory
Grading: letter grade or credit/no credit
For the person who desires to develop a skill in typing for business or personal use. Covers simple business and personal letters, envelopes, tabulations, memorandums, report writing, manuscripts and outlines. Taught using PCs.

CAOTT 200A 1.0 unit
Beginning Typing/Keyboarding
1 hour lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
For the person who desires to develop touch control of the computer keyboard. Emphasizes proper typing techniques and building basic speed and accuracy. Typically offered as self-paced, open-entry/open-exit course.

**CAOTT 200B** 1.0 unit
Beginning Typing/Keyboarding B
1 hour lecture, 1 hour laboratory
Recommended Preparation: CAOTT200A (may be taken concurrently)
Grading: letter grade or credit/no credit
Develop skills in typing and/or computer keyboarding for business or personal use. Emphasizes increased speed and accuracy and covers business and personal letters, tabulation, manuscripts and correct word division. Typically offered as self-paced, open-entry/open-exit instruction.

**CAOTT 200C** 1.0 unit
Beginning Typing/Keyboarding C
1 hour lecture, 1 hour laboratory
Recommended Preparation: CAOTT200B (may be taken concurrently)
Grading: letter grade or credit/no credit
Develop skills in typing and/or computer keyboarding for business or personal use. Emphasizes increased speed and accuracy and covers memorandums, envelopes, reports with footnotes and endnotes, job application papers, business letters, business forms and tables. Typically offered as self-paced, open-entry/open-exit instruction.

**CAOTT 201** 2.0 units
Intermediate Typing/Keyboarding
2 hours lecture, 1 hour laboratory
Recommended Preparation: CAOTT200 or 200C; Type 35 wpm
Grading: letter grade.
To increase speed and accuracy in the preparation of business reports and letters. Taught using purchase.

**CAOTT 202** 2.0 units
Advanced Typing/Keyboarding
2 hours lecture, 1 hour laboratory
Recommended Preparation: CAOTT201; type 40 wpm. Grading: letter grade
Provides a realistic office-type experience to integrate skills, techniques and knowledge for the person who desires to become an executive typist. Taught using purchase.

**CAOTT 209AB** 1.0 unit
Speed/Accuracy Bldg for Typists
3 hours laboratory
Recommended Preparation: CAOTT200 or 200C or 233 or type 25 wpm minimum.
Grading: letter grade or credit/no credit
Directed supervision to assist those who wish to maintain and improve their typing skills.

**CAOTT 233** 1.0 unit
Computer Keyboarding
1 hour lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
Develop touch inputting skills on the alphanumeric keyboard and ten-key pad for business or personal use.

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**COUNSELING & GUIDANCE**

**COUNS 1** 0.5 units
Orientation For College Success
0.5 hours lecture.
Grading: letter grade or credit/no credit
Recommended for all students and designed to orient them to the college environment and educational opportunities in the holistic manner. An intro to academic procedures and policies, goal setting, educational planning, college services and facilities and an exploration of the various opportunities of higher education in California. Develop an educational plan to achieve tentative goals. Transfer Status: Transferable to CSU, see counselor for limitations.

**COUNS 2** 2.0 units
Making a Difference with Mentoring
2 hours lecture.
Grading: letter grade or credit/no credit
Designed for students who are interested in learning the techniques of mentoring first year students. Theories of the first year experience, and mentoring, will be explored. To increase the academic development and socialization of first year students, using a variety of techniques learned through lecture and activities. Recommended for all students and designed to orient them to the college environment and educational opportunities in the holistic manner. An intro to academic procedures and policies, goal setting, educational planning, college services and facilities and an exploration of the various opportunities of higher education in California. Develop an educational plan to achieve tentative goals. Transfer Status: Transferable to CSU, see counselor for limitations.

**COUNS 48** 1.0 unit
Career Exploration
1 hour lecture, 0.5 hours laboratory
Grading: letter grade or credit/no credit
For those not sure of their educational and/or career goals. Intro to a career decision making model including personal assessment, self-understanding career and labor market research, integration of information and goal setting. Emphasizes one’s self-description as it impacts career choices. Transfer Status: Transferable to CSU, see counselor for limitations.

**COUNS 49** 2.0 units
College Study Techniques
2 hours lecture.
Grading: letter grade or credit/no credit
Group guidance in the methods of effective study, including self-appraisal of the factors of motivation, interests and academic abilities. Transfer Status: Transferable to CSU, see counselor for limitations.

**COUNS 49A** 1.0 unit
College Study Techniques
1 hour lecture.
Grading: letter grade or credit/no credit
An intro to methods of effective study at the college level, including self-analysis of current skills, time management, learning theories, textbook study, note-taking skills and exam-taking strategies. Transfer Status: Transferable to CSU, see counselor for limitations.

**COUNS 50** 3.0 units
Career Planning: A Life-Long Process
3 hours lecture.
Grading: credit/no credit
Presents a reflexive model of decision making that integrates theory and practice which is applicable in a variety of situations over the life span. Through a study of
career decision making, students explore the impact of psycho-social, physical and affective factors on one’s own cognitive processes. This objectified self-discovery serves as a foundation for life-long learning skills with an immediate focus on achieving success on the student’s education/career plan. *Transfer Status: Transferable to CSU, see counselor for limitations.*

**COUNS 600**

Disability and Self-Concept

2 hours lecture, 1 hour laboratory
Grading: no grade awarded
Aids college students with a disability in successfully integrating into the mainstream college program and provides a guidance and counseling function based upon the individual needs of the students. Meet with the instructor in a group and individually to discuss present, as well as future, academic, vocational and personal problems that might mitigate against successful college performance. Includes factors related to realistic self-appraisal, defenses related to adjustment, self-concept and inter-personal relationships.

**CREATIVE ARTS**

**CART 41**

The Arts and Modern Man

3 hours lecture.
Grading: letter grade or credit/no credit
An intro to the creative arts (art, film, music and the theatre arts) for the general student. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

**CULINARY ARTS**

**THRCA 201A**

Hotel, Restaurant: Institutional Cooking

5 hours lecture, 10 hours laboratory
Grading: letter grade.
Develop the basic skills of commercial cooking, including: preparation of vegetables, salads, soups, sandwiches, entrees, pastries and specialty dishes. Develop knowledge of nutrition, menu, supplies, hygiene and sanitation, safety practices and employer-employee relations.

**CULINARY ARTS (FDSRV)**

**FDSRV 20**

App. Food Serv Sanit in Hotel/Rstr Mgmt

3 hours lecture.
Grading: letter grade.
Describes the significance of sanitation in food service and provides the practical knowledge needed to implement a sanitation program in any kitchen. Stresses the importance of the food poisoning problem of today and shows how important sanitation is from an economic, legal and moral point of view. *Transfer Status: Transferable to CSU, see counselor for limitations.*

**FDSRV 201A**

Hotel, Restaurant: Institutional Cooking

5 hours lecture, 10 hours laboratory
Grading: letter grade.
Develop the basic skills of commercial cooking, including: preparation of vegetables, salads, soups, sandwiches, entrees, pastries and specialty dishes.

**FDSRV 201B**

Hotel, Restaurant: Institutional Cooking

5 hours lecture, 10 hours laboratory
Grading: letter grade.
Develop basic skills of commercial cooking, including: preparation of vegetables, salads, soups, sandwiches, entrees, pastries and specialty dishes. Develop knowledge of nutrition, menu, supplies, hygiene and sanitation, safety practices and employer-employee relations.

**FDSRV 204**

Introduction to Baking

2 hours lecture, 9 hours laboratory
Grading: letter grade.
Basic preparatory skills for a baker, including use of tools, equipment and materials, the basic characteristics of ingredients, the fundamentals of baking breads, rolls, doughnuts and related icings, toppings and fillings.

**FDSRV 205**

Baking and Pastry I

2 hours lecture, 9 hours laboratory
Prerequisite: FDSRV 204
Grading: letter grade.
Includes two major areas: Pies and cakes/specialties.

**FDSRV 206**

Baking and Pastry II

2 hours lecture, 9 hours laboratory
Prerequisite: FDSRV 204
Grading: letter grade.
Includes puff pastries and other exotic baked goods.

**FDSRV 207**

Commercial Cake Decorating

2 hours lecture, 9 hours laboratory
Grading: letter grade.
Design and arrangements, figure piping, tube writing and lettering, icing preparation and coloring, setting pre-cast decorator figures, cake borders and basic texture patterns are covered. Practice cake decorating.

**FDSRV 213A**

Food Preparation 1

5 hours lecture, 20 hours laboratory
Grading: letter grade.
Emphasizes food service careers, weights and measures and safety. Also, includes instruction in fry cooking, breakfast cooking, fast food and convenience food cooking, salad and sandwich preparation. *Course articulated with LBUSD.*

**FDSRV 213B**

Food Preparation 2

5 hours lecture, 20 hours laboratory
Prerequisite: FDSRV 213A
Grading: letter grade.
Emphasizes instruction in meat cutting, fish and poultry butchering and soup, sauce and vegetable cooking. Meats, poultry and fish cookery, along with entree, banquet and buffet preparation and cooking, will be taught.
### Courses of Instruction

#### FDSRV 213C 11.5 units
**Food Preparation 3**
- 5 hours lecture, 20 hours laboratory
- Prerequisite: FDSRV 213B
- Grading: letter grade.
- Emphasizes instruction in meat cutting and entree preparation. Also, includes advanced training as kitchen and pantry helper, breakfast and fry cook and entree soups and sauces cook.

#### FDSRV 214 2.0 units
**Professional Gourmet Cooking**
- 6 hours laboratory
- Grading: letter grade.
- Emphasizes a comprehensive study of the complex artistry of chefs in California’s leading hotels and restaurants. Specialized equipment, tools, formulas and techniques are presented by Los Angeles’ top chefs.

#### FDSRV 215 2.0 units
**Commercial Formal Buffet**
- 6 hours laboratory
- Grading: letter grade.
- Emphasizes a comprehensive study of the complex artistry of chefs in California’s leading hotels and restaurants. Specialized equipment, tools, formulas and techniques are presented by Los Angeles’ top chefs.

#### FDSRV 270AD 1.0 unit
**Work Experience Issues-Food Services**
- 1 hour lecture.
- Corequisite: Enrollment in at least seven units including FDSRV271AD, 272AD or 273AD and 270AD.
- Grading: letter grade or credit/no credit
- Seminar related to work experience. Discussion of work experience objectives, career goals, employment search, communication skills and problem solving.

#### FDSRV 271AD 1.0 unit
**Work Experience: Food Services**
- 4.2 hours laboratory
- Corequisite: Enrollment in at least seven units including FDSRV270AD and 271AD.
- Grading: letter grade or credit/no credit
- Vocational learning experiences through employment directly related to the industry.

#### FDSRV 272AD 2.0 units
**Work Experience: Food Services**
- 8.3 hours laboratory
- Corequisite: Enrollment in at least seven units including FDSRV270AD and 272AD.
- Grading: letter grade or credit/no credit
- Vocational learning experiences through employment directly related to the industry.

#### FDSRV 273AD 3.0 units
**Work Experience: Food Services**
- 12.5 hours laboratory
- Corequisite: Enrollment in at least seven units including FDSRV270AD and 273AD.
- Grading: letter grade or credit/no credit
- Vocational learning experiences through employment directly related to the industry.

#### DANCE 1 3.0 units
**Dance Forms Through the Ages**
- 3 hours lecture.
- Grading: letter grade or credit/no credit
- An historical survey of dance, including its role in culture, its development through history and the theatrical dance forms in contemporary America. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

#### DANCE 2 1.0 unit
**Introduction to Dance**
- 1 hour lecture, 2 hours laboratory
- Grading: letter grade or credit/no credit
- Introduces the basic dance techniques of ballet, modern, jazz and ethnic dance. Recommended for students with no dance experience. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

#### DANCE 3AD 1.0 unit
**Musical Theatre Dance**
- 1 hour lecture, 2 hours laboratory
- Grading: letter grade or credit/no credit
- Introduces musical theatre dance styles from the 1940’s to present. Includes the study of ballet, jazz and tap techniques to prepare students for performance in musical theatre. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

#### DANCE 5AB 1.0 unit
**Beginning Tap**
- 1 hour lecture, 2 hours laboratory
- Recommended Preparation: DANCE5AB
- Grading: letter grade or credit/no credit
- The study of basic tap dance techniques. Provides the opportunity to develop coordination, rhythm and performance skills. Some history of tap will be included. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

#### DANCE 6AB 1.0 unit
**Intermediate Tap Dance**
- 1 hour lecture, 2 hours laboratory
- Recommended Preparation: DANCE5AB
- Grading: letter grade or credit/no credit
- Continuing study of tap dance skills, emphasizing the intermediate level of dance. Includes the study of terminology, tap history and tap styles. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

#### DANCE 8AD 1.0 unit
**Stretch and Relaxation**
- 1 hour lecture, 2 hours laboratory
- Grading: letter grade or credit/no credit
- The study and practice of stretching and breathing principles for increased flexibility, reduction of stress and improved mental and physical health. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

#### DANCE 10AB 1.0 unit
**Fundamentals of Ballet**
- 1 hour lecture, 2 hours laboratory
- Grading: letter grade or credit/no credit
- The study and execution of fundamental ballet techniques. Appreciation of ballet as an art form through the study of its history, current trends and terminology.
Courses of Instruction

Transfer Status: Transferable to UC/CSU, see counselor for limitations.

DANCE 11AB  1.0 unit
Intermediate Ballet
1 hour lecture, 2 hours laboratory
Prerequisite: DANCE 10AB
Grading: letter grade or credit/no credit
Continuing study of ballet techniques. Increased emphasis on body alignment, musicality, strength and flexibility. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

DANCE 12AD  1.0 unit
Conditioning for Dance — Pilates Technique
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Physical and mental conditioning program for dancers involving exercises performed on a mat and on an apparatus called the universal reformer. Designed to enhance dance techniques and performance and prevent injuries. Lectures focus on correct execution of mat and apparatus exercises. Lab involves individual practice of lecture material. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

DANCE 13AD  1.0 unit
Turns
1 hour lecture, 2 hours laboratory
Prerequisite: DANCE10AB, 14AB or 20AB or audition
Grading: letter grade or credit/no credit
The practice and study of beginning to advanced turns for modern, ballet and jazz dance. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

DANCE 14AB  1.0 unit
Beginning Modern Dance
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Emphasizes techniques, composition and aesthetic judgment. Relationship of dance with music and sound explored. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

DANCE 15AB  1.0 unit
Beg Contemporary Dance Technique
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Techniques for the concert stage emphasizing body alignment, strength, flexibility and coordination. Includes study of improvisation, composition skills and contemporary choreographers’ styles. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

DANCE 16AB  1.0 unit
Int. Contemporary Dance Technique
1 hour lecture, 2 hours laboratory
Recommended Preparation: DANCE15AB
Grading: letter grade or credit/no credit
Continuing study for the concert stage involving intermediate combinations. Increased emphasis on body alignment, strength, coordination, contemporary choreographers’ styles, improvisation and composition. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

DANCE 17AB  1.0 unit
Intermediate Modern Dance
1 hour lecture, 2 hours laboratory
Recommended Preparation: DANCE14AB
Grading: letter grade or credit/no credit
Continuing study of techniques for the concert stage encompassing more complicated combinations taught at a quicker pace. Emphasizes movement expression and a comparison of modern styles and choreographers. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

DANCE 18AD  1.0 unit
Folk and Ethnic Dance
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Introduces dances from selected cultures using character barre exercises for strength, flexibility and coordination. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

DANCE 20AB  1.0 unit
Beginning Jazz Dance
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Intro to the movement skills used in jazz dance, the use of dynamics in rhythm, sustained and percussive tension and dramatic focus unique to jazz. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

DANCE 21AB  1.0 unit
Intermediate Jazz Dance
1 hour lecture, 2 hours laboratory
Prerequisite: DANCE 20AB or audition
Grading: letter grade or credit/no credit
A study of the movement skills that require an intermediate knowledge of jazz dance techniques. Emphasis is on executing movement with a sense of performance, use of long movement patterns with a focus on dynamics in rhythm, sustained and percussive tension and dramatic focus that are unique to jazz. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

DANCE 31AB  1.0 unit
Solo Choreography
1 hour lecture, 2 hours laboratory
Prerequisite: One semester of DANCE 20AB or 10AB or 14AB or audition.
Grading: letter grade or credit/no credit
The study of creating movement for the solo dancer focusing on discovering inventive movement, a personal style of expression and aesthetic judgment. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

DANCE 32AB  1.0 unit
Group Choreography
1 hour lecture, 2 hours laboratory
Recommended Preparation: One semester of DANCE 31AB
Grading: letter grade or credit/no credit
The study of choreography for a group of dancers focusing on the use of design in space to create dances of significant form. Includes an intro of computer skills to design a dance and work in a collaborative environment teaching choreography to workshop participants. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

DANCE 33AD  1.0 unit
Dance Choreography Workshop
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
A collaborative workshop environment in which class participants work with student choreographers in the creation of dances of significant form and content.
Courses of Instruction

Transfer Status: Transferable to UC/CSU, see counselor for limitations.

DANCE 41/1 0.5 units
Dance Performance
2 hours laboratory
Corequisite: DANCE 10AB or 11AB or 12AD or 14AB or 17AB or 20AB.
Recommended Preparation: Audition
Grading: letter grade or credit/no credit
The application of choreographic concepts and skills through rehearsal and performance of dance projects for public performance. The appropriate class section in this sequence is assigned following skills assessment at initial class meeting. Transfer Status: Transferable to CSU, see counselor for limitations.

DANCE 41/2 1.0 unit
Dance Performance
4 hours laboratory
Corequisite: DANCE 10AB or 11AB or 12AD or 14AB or 17AB or 20AB.
Recommended Preparation: Audition
Grading: letter grade or credit/no credit
The application of choreographic concepts and skills through rehearsal and performance of dance projects for public performance. The appropriate class section in this sequence is assigned following skills assessment at initial class meeting. Transfer Status: Transferable to CSU, see counselor for limitations.

DANCE 41/3 1.5 units
Dance Performance
6 hours laboratory
Corequisite: DANCE 10AB or 11AB or 12AD or 14AB or 17AB or 20AB.
Recommended Preparation: Audition
Grading: letter grade or credit/no credit
The application of choreographic concepts and skills through rehearsal and performance of dance projects for public performance. The appropriate class section in this sequence is assigned following skills assessment at initial class meeting. Transfer Status: Transferable to CSU, see counselor for limitations.

DANCE 41AD 2.0 units
Dance Performance
8 hours laboratory
Corequisite: DANCE 10AB or 11AB or 12AD or 14AB or 17AB or 20AB.
Recommended Preparation: Audition
Grading: letter grade or credit/no credit
The application of choreographic concepts and skills through rehearsal and performance of dance projects for public performance. The appropriate class section in this sequence is assigned following skills assessment at initial class meeting. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

DANCE 60AD 1.0 unit
Special Projects in Dance
3 hours laboratory
Grading: letter grade or credit/no credit
Permits lower division students with a generalized background in dance to explore in-depth a specific aspect of dance in both theory and execution. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

DIAGNOSTIC MEDICAL IMAGING SCIENCE

RT 10 3.0 units
Introduction of Radiologic Technology
3 hours lecture.
Prerequisite: ANAT 41 and AH 60 (HTECH 60) within the past five years.
Grading: letter grade.
A study of the history and basic principles of medical radiography, the structure of film, mechanics of exposure, chemistry of processing the latent image and evaluation of the finished radiograph. Transfer Status: Transferable to CSU, see counselor for limitations.

RT 11 1.0 unit
Radiographic Techniques
1 hour lecture.
Prerequisite: RT 20
Grading: letter grade.
A study of the criteria required to select x-ray machine settings to produce diagnostic quality radiographs. Transfer Status: Transferable to CSU, see counselor for limitations.

RT 12 3.0 units
Contrast Fluoroscope/Radiographic Procedure
3 hours lecture.
Corequisite: RT 11
Grading: letter grade.
A study of the preparation and administration of radiographic contrast media, including specific procedures, accessories and techniques. The management and organization of a radiologic services department are outlined and discussed. Transfer Status: Transferable to CSU, see counselor for limitations.

RT 14 3.0 units
Trends and Self-Assessment in Rad Tech
3 hours lecture.
Prerequisite: RT 15 or current C.R.T. (Certified Radiologic Technologist)
Grading: letter grade.
Current developments in radiologic technology equipment, quality control devices, computer applications, ultrasound and special procedures are discussed. Students are assisted with self-assessment of the knowledge and skills required of the successful radiologic technologist. Transfer Status: Transferable to CSU, see counselor for limitations.

RT 15 3.0 units
Computer Applications in Radiology
3 hours lecture.
Prerequisite: RT 24
Grading: letter grade.
A study of computer systems hardware and software uses in radiology: CT, digital imaging, MRI, ultrasonography, nuclear medicine and automated radiology management systems. Transfer Status: Transferable to CSU, see counselor for limitations.

RT 20 3.0 units
Introduction to Radiologic Physics
3 hours lecture.
Prerequisite: RT 10.
Grading: letter grade.
A study of the basic principles of physics involved in the production, behavior, modification and control of radiation. Transfer Status: Transferable to CSU, see counselor for limitations.
# Courses of Instruction

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT 21</td>
<td>Applied Radiological Physics</td>
<td>2.0</td>
</tr>
</tbody>
</table>

1 hour lecture, 3 hours laboratory  
Prerequisite: RT 20  
Grading: letter grade.  
A study of the application of basic radiologic physics to the interaction of radiation with matter, radionuclide production, behavior and use and radiation therapy. Also includes practical applications for diagnostic radiology.  
Transfer Status: Transferable to CSU, see counselor for limitations.

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<thead>
<tr>
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<th>Units</th>
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</thead>
<tbody>
<tr>
<td>RT 24</td>
<td>Radiation: Biology And Protection</td>
<td>3.0</td>
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</tbody>
</table>

3 hours lecture.  
Prerequisite: RT 21  
Grading: letter grade.  
A history of radiation damage to humankind: biologic effects of ionizing radiation, methods used to minimize occupational radiation exposure and legislative attempts at the federal and state level to regulate the use of radiation.  
Transfer Status: Transferable to CSU, see counselor for limitations.

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<thead>
<tr>
<th>Course Code</th>
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<th>Units</th>
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<tbody>
<tr>
<td>RT 30</td>
<td>Positioning for General Diagnostic Rad</td>
<td>3.0</td>
</tr>
</tbody>
</table>

2 hours lecture, 3 hours laboratory  
Recommended Preparation: RT 11  
Grading: letter grade.  
A study of the knowledge and skills required to accurately position patients and align equipment and film to produce diagnostic quality radiographs of the trunk and extremities.  
Transfer Status: Transferable to CSU, see counselor for limitations.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>RT 31</td>
<td>Positioning for Cranial Radiography</td>
<td>3.0</td>
</tr>
</tbody>
</table>

2 hours lecture, 3 hours laboratory  
Prerequisite: RT 30  
Grading: letter grade.  
A study of the positioning for general and specialized radiologic exams of the cranium and its contents.  
Develop skill in positioning the patient, film and x-ray tube and select appropriate techniques to produce quality radiographs.  
Transfer Status: Transferable to CSU, see counselor for limitations.

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT 40A</td>
<td>Clinical Radiology</td>
<td>2.5</td>
</tr>
</tbody>
</table>

8 hours laboratory  
Prerequisite: RT 10 and RT 20.  
Grading: letter grade.  
The clinical application of theoretical knowledge to the practice of radiologic technology, correlation of clinical experiences, training and career goals, interpersonal relations, job-oriented problems and film quality control. Includes an assignment to a radiology department in an accredited hospital for clinical experience.  
Transfer Status: Transferable to CSU, see counselor for limitations.

<table>
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<tr>
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<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT 40B</td>
<td>Clinical Radiology</td>
<td>6.0</td>
</tr>
</tbody>
</table>

1 hour lecture, 23 hours laboratory  
Prerequisite: RT 40A  
Grading: letter grade.  
The clinical application of theoretical knowledge to the practice of radiologic technology, correlation of clinical experiences, training and career goals, interpersonal relations, job-oriented problems and film quality control.  
Includes an assignment to a radiology department in an accredited hospital for clinical experience.  
Transfer Status: Transferable to CSU, see counselor for limitations.
Prerequisite: Current C.R.T. (Certified Radiologic Technologies) card or enrolled in the second year of the program.
Grading: letter grade.
Principles of radiation protection, fluoroscopy and viewing equipment, recording systems, quality control, patient positioning and regulatory provisions associated with fluoroscopy. Prepares students to obtain a Department of Health Services Fluoroscopy permit.
Transfer Status: Transferable to CSU, see counselor for limitations.

RT 62 3.5 units
Mammography
3 hours lecture, 1.5 hours laboratory
Prerequisite: Current CRT (Certified Radiologic Technologist) or enrolled in the second year of the Diagnostic Medical Imaging (Radiologic Technology) program.
Grading: letter grade.
Prepares students to obtain the Department of Health Services Mammography license. Includes: principles of components of dedicated mammography equipment, radiation protection legislation, quality assurance regulations and mammographic positioning. Transfer Status: Transferable to CSU, see counselor for limitations.

### DIESEL MECHANICS

DIESL 281 10.0 units
Diesel Two-Cycle Engine
5 hours lecture, 15 hours laboratory
Grading: letter grade or credit/no credit
Learn safety, engine testing, problem evaluation, tuning diesel engines, intro to two-cycle (Detroit) engine. Disassemble, inspect and reassemble two-cycle engines. Intro to alternative fuels and problem analysis are covered.

DIESL 282 10.0 units
Diesel Four-Cycle Engine
5 hours lecture, 15 hours laboratory
Grading: letter grade or credit/no credit
Learn safety, engine testing, problem analysis, troubleshooting, repair procedures, tuning diesel engine, disassembly and reassembly of the four-cycle engine. Intro to spark ignited engines (Cummins), as well as special repair procedures and equipment.

DIESL 283 10.0 units
Diesel Engine Rebuilding
5 hours lecture, 15 hours laboratory
Prerequisite: DIESL281 or 282
Grading: letter grade or credit/no credit
Safety, engine testing, problem analysis, intro to inframe overhaul of two- and four-cycle engines. Maintenance and adjustment of reconditioned engines.

DIESL 284 10.0 units
Highway Transport
5 hours lecture, 15 hours laboratory
Recommended Preparation: DIESL282
Grading: letter grade or credit/no credit

DIESL 287 10.0 units
Diesel Fuel Injection Systems
5 hours lecture, 15 hours laboratory
Grading: letter grade or credit/no credit
Learn safety, history of fuel injection, current types of fuel systems and function of a fuel injection system, as well as equipment testing procedures-disassemble and reassemble pump and injectors in Cummins fuel systems.

DIESL 288 10.0 units
Diesel Engine Chassis
5 hours lecture, 15 hours laboratory
Grading: letter grade or credit/no credit
Learn safety, troubleshooting, removal, repair and replacement of all components that are used on a diesel truck. Maintenance of the total chassis and service operations will be highlighted.

DIESL 289 10.0 units
Caterpillar 3406 and 3116 Engine
5 hours lecture, 15 hours laboratory
Grading: letter grade or credit/no credit
Covers safety, engine testing, problem conditions, troubleshooting, repair procedures, tuning, disassembling and reassembling the Caterpillar 3406 engine. The new designs in the 3116 caterpillar engine are reviewed.

DIESL 290 10.0 units
C.A.T. Transmissions and Final Drive
5 hours lecture, 15 hours laboratory
Grading: letter grade or credit/no credit
Covers steering, clutches, brakes, transmissions and final drive units for Caterpillar heavy equipment intended for off-highway use.

DIESL 291 10.0 units
C.A.T. Hydraulics
5 hours lecture, 15 hours laboratory
Grading: letter grade or credit/no credit
Covers hydraulics system.

DIESL 292 10.0 units
C.A.T. Chassis & Electrical
5 hours lecture, 15 hours laboratory
Grading: letter grade or credit/no credit
Covers suspension, under carriage, tires, tracks and air conditioning.

DIESL 293AD 4.0 units
General Engines
3 hours lecture, 3 hours laboratory
Grading: letter grade.
Tool and equipment; operation and maintenance of various types of diesel and spark ignited engines, including injection, fuel pump systems, governors and safety practice.

DIESL 492 3.0 units
Air and Hydraulic Brakes
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Courses of Instruction

Learn brake theory and fundamentals, basic brake systems, components, piping systems, interrelationship of components, accessories, safety devices and troubleshooting techniques.

**DRAFTING & DESIGN, MECHANICAL**

**DRAFT 51A** 3.0 units  
**Industrial Drafting I**  
2 hours lecture, 4 hours laboratory  
Prerequisite: One semester of DRAFT201 or high school mechanical drawing  
Grading: letter grade.  
A beginning computer aided drafting course that uses AutoCAD software. Covers lettering, instruments, geometrics, orthographic projection, pictorial views, freehand sketching, auxiliary views, sections, intersections, developments, shop methods and practices and drafting room practices. *Transfer Status: Transferable to CSU, see counselor for limitations.*

**DRAFT 51B** 3.0 units  
**Industrial Drafting II**  
2 hours lecture, 4 hours laboratory  
Prerequisite: DRAFT 51A  
Grading: letter grade.  
Dimensioning, surface quality, welding drawings, screw threads, fasteners, keys, keyways, springs, gears, splines, cams and bearings are discussed. Uses AutoCAD software. *Transfer Status: Transferable to CSU, see counselor for limitations.*

**DRAFT 52A** 3.0 units  
**Advanced Industrial Drafting**  
2 hours lecture, 4 hours laboratory  
Prerequisite: DRAFT 51B  
Grading: letter grade.  
Working piping, electrical, structural drawings, tools and dies, jig and fixture design, charts, graphs, diagrams, applied math, engineering materials, heat treatment, parts listings and products design fundamentals are addressed. *Transfer Status: Transferable to CSU, see counselor for limitations.*

**DRAFT 52B** 3.0 units  
**Descriptive Geometry**  
2 hours lecture, 4 hours laboratory  
Prerequisite: DRAFT 52A  
Grading: letter grade.  
Fundamentals of descriptive geometry, point, edge, normal views, point and straight line, straight line and planes relationships, curved lines and surfaces, surface intersections and developments, vector geometry and graphic solutions are addressed. *Transfer Status: Transferable to CSU, see counselor for limitations.*

**DRAFT 60** 3.0 units  
**Geometric Dimensioning and Tolerancing**  
3 hours lecture.  
Prerequisite: One semester of DRAFT203AD  
Recommended Preparation: MATH 225  
Grading: letter grade.  
Review of Industry Standard ANSI-Y14.5-1982. Three plane concept, true position, dimensioning and tolerancing, total indicator readings, modifiers RFS and MMC, converting coordinate errors and tolerances of form are discussed. *Transfer Status: Transferable to CSU, see counselor for limitations.*

**DRAFT 201** 4.0 units  
**Introduction to Drafting**  
3 hours lecture, 3 hours laboratory  
Grading: letter grade or credit/no credit  
An entry-level course offered as a preparation for architectural design, mechanical drafting and interior design students with no previous graphic training. Provides instruction in the fundamental principles and techniques of traditional drafting and computer aided drafting (CAD). Includes drafting equipment (manual and CAD), sketching, lettering, line type and line weight, orthographic projection, isometrics and dimensioning. CAD training will utilize AutoCAD software in the Windows environment. Introduces CAD fundamentals: user interface, basic draw and edit commands, template drawings, dimensioning, electronic drawing sheets, file management, printing and plotting and the Windows operating system for CAD users. Exercises cover drawings for both mechanical and architectural applications.

**DRAFT 202** 4.0 units  
**AutoCAD I, Fundamentals**  
3 hours lecture, 3 hours laboratory  
Recommended Preparation: DRAFT201  
Grading: letter grade or credit/no credit  
An entry-level course primarily aimed at individuals with a drafting background employed in engineering, architecture, interior design and other related fields who wish to upgrade their skills in the area of computer aided drafting (CAD). Successful completion of the three modules culminates in a Certificate of Achievement -CAD Fundamentals. CAD training will utilize AutoCAD software. The first in a series of three leading to a Certificate of Completion-CAD Professional-Architectural or Mechanical Applications. Covers the basics of CAD: user interface, draw and edit commands, template drawings, dimensioning, electronic drawing sheets, file management, printing and plotting and the Windows operating system for CAD users. Projects include CAD 2D drawings for both mechanical and architectural applications incorporating fundamental drafting skills and techniques with an intro to 3D and the elements of design.

**DRAFT 203** 4.0 units  
**AutoCAD II, Advanced Concepts**  
3 hours lecture, 3 hours laboratory  
Recommended Preparation: DRAFT202  
Grading: letter grade or credit/no credit  
An intermediate-level course primarily aimed at individuals with a drafting background employed in engineering, architecture, interior design and other related fields who wish to upgrade their skills in the area of computer aided drafting (CAD). Successful completion of the three modules culminates in a Certificate of Achievement-CAD Advanced Concepts. CAD training will utilize AutoCAD software and is the second class in a series of three leading to a Certificate of Completion-CAD Professional-Architectural or Mechanical Applications. Covers advanced 2D concepts and intermediate level 3D modeling: user interface, advanced draw, edit and query commands, template drawings, dimension styles, model space/paper space electronic drawing sheets, external reference styles, file management and the WEB, plotting styles, blocks and attributes and 3D modeling techniques. Projects include CAD 2D and 3D drawings for both mechanical and architectural applications incorporating intermediate
Courses of Instruction

drafting skills and techniques with an emphasis on the elements of design.

**DRAFT 204  4.0 units**

**AutoCAD III, 3D Visualization/Animation**
3 hours lecture, 3 hours laboratory
Recommended Preparation: DRAFT203
Grading: letter grade or credit/no credit
An advanced-level course primarily aimed at individuals with a drafting background employed in engineering, architecture, interior design and other related fields who wish to upgrade their skills in the area of computer aided drafting (CAD), Visualization, Rendering and Animation. Successful completion of the three modules culminates in a Certificate of Achievement-3D Visualization, Rendering and Animation. CAD training will utilize AutoCAD and one or more of the following: Architectural Desktop, Mechanical Desktop and 3D Studio Viz Software. Digital non-linear editing is introduced. The final course in a series of three leading to a Certificate of Completion-CAD Professional-Architectural or Mechanical Applications. Advanced 3D modeling and rendering concepts are explored: user interface, coordinate system, surface and solids modeling commands, rendering and animation. Projects cover both mechanical and architectural applications.

**ECONOMICS**

**ECON 1A (CAN ECON 2)  3.0 units**

**Macro Economic Analysis**
3 hours lecture.
Grading: letter grade or credit/no credit
Emphasizes the functioning of a mixed enterprise system, business organization, the economic role of government, determination of national income, banking system, deposit creation and the Federal Reserve policy (primarily macro). Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**ECON 1AH  3.0 units**

**Honors Macro Economic Analysis**
3 hours lecture.
Prerequisite: Qualification for the Honors Program.
Grading: letter grade or credit/no credit
Emphasizes the functioning of a mixed enterprise system, business organization, the economic role of government, determination of national income, banking system, deposit creation and the Federal Reserve policy (primarily macro). Transfer Status: Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**ECON 1B (CAN ECON 4)  3.0 units**

**Micro Economic Analysis**
3 hours lecture.
Grading: letter grade or credit/no credit
Concentrates on price theory, distribution, resource allocation, foreign trade and comparative economic systems (primarily micro). Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**ECON 4  3.0 units**

**Contemporary Economic Issues**
3 hours lecture.
Grading: letter grade or credit/no credit
Offers an economics analysis of contemporary questions including environmental, institutional and multicultural issues. Determine the role of economies, as a social science, assisting in understanding cause, effects and possible policies for current problems. Emphasizes the relationship of the basic tools of economic analysis and their application to current economic problems. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**ECON 5  3.0 units**

**Economic Geography**
3 hours lecture.
Grading: letter grade or credit/no credit
Studies the location and organization of the world’s major economic activities, including the primary, secondary and tertiary sectors. Not open for credit to students registered in or with credit in GEOG 5. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**ELECTRICITY**

**ELECT 200A  8.0 units**

**First Semester Industrial Electricity**
6 hours lecture, 6 hours laboratory
Grading: letter grade.
An intro to direct current theory, practices and applications. A study of nomenclature and components for students beginning electrical studies for occupational goals, continuing university education or for increasing skill level. Includes formulas used in electrical theory, offering a review and application of various functions; principles of magnetism and electromagnetism applicable to electrical components; information regarding proper use and selection of tools, materials and wiring as practiced in the electrical maintenance and construction industry are emphasized. Lab work includes the fundamentals of DC electricity, electromagnetism, wiring and hand tools.

**ELECT 200B  8.0 units**

**Second Semester Industrial Electricity**
6 hours lecture, 6 hours laboratory
Prerequisite: ELECT200A
Grading: letter grade.
An intro to AC theory, practices and applications. A study of nomenclature and components. An advanced course featuring lab work associated with the fundamentals of AC electricity, AC principles and practices, as well as fundamentals of DC motors and generators.

**ELECT 200C  8.0 units**

**Third Semester Industrial Electricity**
6 hours lecture, 6 hours laboratory
Prerequisite: ELECT200B
Grading: letter grade.
Operational theory and practices associated with motors and generators. Lab work associated with motor controls and circuit diagrams, including wiring practices in the electrical maintenance and construction industry.

**ELECT 200D  8.0 units**

**Fourth Semester Industrial Electricity**
6 hours lecture, 6 hours laboratory
Prerequisite: ELECT200C
### Courses of Instruction

**ELECT 202** 3.0 units
**Electrical Mathematics**
3 hours lecture.
Grading: letter grade.
A study of formulas used in electrical elementary theory, offering a review and application of various functions.

**ELECT 204** 3.0 units
**First semester “Fund of DC Electricity”**
3 hours lecture.
Corequisite: ELECT 202
Grading: letter grade.
An intro to direct current theory, practices and applications. A study of nomenclature and components for students beginning electrical studies for occupational goals, continuing university education or for increasing their skill level.

**ELECT 209** 3.0 units
**Second Sem “Fund of Motors/Generators”**
3 hours lecture.
Prerequisite: ELECT204
Corequisite: ELECT 210B
Grading: letter grade.
Operational theory and practices as associated with direct current motors and generators.

**ELECT 210A** 1.0 unit
**Laboratory Practices**
3 hours laboratory.
Corequisite: ELECT 204
Grading: letter grade.
Lab work associated with the fundamentals of DC electricity, electromagnetism, wiring, practice and hand tools.

**ELECT 210B** 1.0 unit
**Laboratory Practices**
3 hours laboratory.
Prerequisite: ELECT 210A
Corequisite: ELECT 209
Grading: letter grade.
Lab work associated with the fundamentals of AC electricity, AC principles and practices, as well as fundamentals of DC motors and generators.

**ELECT 210C** 1.0 unit
**Laboratory Practices**
3 hours laboratory.
Prerequisite: ELECT 210B
Corequisite: ELECT 212
Grading: letter grade.
Lab work associated with motor controls and circuit diagrams.

**ELECT 210D** 1.0 unit
**Laboratory Practices**
3 hours laboratory.
Prerequisite: ELECT 210C
Corequisite: ELECT 214
Grading: letter grade.
Lab work associated with electrical measuring instruments, motors and transformers.

**ELECT 212** 3.0 units
**Third Semester “Fund of AC Electricity”**
3 hours lecture.
Prerequisite: ELECT209
Corequisite: ELECT 210C
Grading: letter grade.
An intro to AC theory, practices and applications. A study of nomenclature and components in an advanced course that requires previous DC coursework plus math.

**ELECT 214** 3.0 units
**Fourth Semester “AC Principles & Pract”**
3 hours lecture.
Corequisite: ELECT 210D
Recommended Preparation: ELECT 212
Grading: letter grade.
An advanced course that requires knowledge of AC basic circuitry. Teaches principle of alternating current, installation of devices in AC circuits, response of circuits to AC excitation.

**ELECT 218** 3.0 units
**Manual Motor Controls**
3 hours lecture.
Recommended Preparation: ELECT 209
Grading: letter grade.
Basic motor controls involving manual methods in AC and DC motors.

**ELECT 222** 3.0 units
**Electrical Measurements**
3 hours lecture.
Grading: letter grade.
Various classes of electrical measuring instruments and their applications. Included are multimeters, ampmeters, insulation testers, capacitance checkers, oscilloscopes, reactive power meters, voltmeters, recording meters, etc.

**ELECT 224** 3.0 units
**Electrical Motors and Transformers**
3 hours lecture.
Grading: letter grade.
Theory and applications of single and poly phase motors and transformers, testing and connection methods, troubleshooting and maintenance.

**ELECT 226** 3.0 units
**Solid State Fundamentals for Electrician**
3 hours lecture.
Recommended Preparation: ELECT 212
Grading: letter grade.
Comprehensive overview of solid state devices and systems, including fiber optics, integrated circuits and light activated components as utilized in the electrical industry.

**ELECT 240** 3.0 units
**Electrical Code-Residential**
3 hours lecture.
Grading: letter grade.
Familiarity with the use of electrical materials and codes used for residential wiring.

**ELECT 242** 1.5 units
**Electrical Code-Grounding**
1.5 hours lecture
Recommended Preparation: ELECT 240
Grading: letter grade.
Intended for individuals involved with or working within the electrical industry and who have a knowledge of the NEC (National Electric Code).

ELECT 245 3.0 units
Electrical Code-Commercial
3 hours lecture
Recommended Preparation: ELECT 240
Grading: letter grade.
Intended as an intro to the use of electrical code and for individuals interested in commercial, office and light industrial wiring.

ELECT 250 3.0 units
Electrical Code-Advanced
3 hours lecture
Recommended Preparation: ELECT 245
Grading: letter grade.
Intended for individuals having a working knowledge of the code and those who are working or intending to work with heavy industrial applications, life, safety and hazardous systems.

ELECT 271 3.0 units
Electrical Cost Estimating I
3 hours lecture.
Grading: letter grade.
Intro to electrical cost estimating, including take-off and listing procedures, for students preparing to enter electrical estimating occupations or associated fields of interest.

ELECT 275 0.5 units
Electrical Pipe Bending (A)
0.3 hours lecture, 0.7 hours laboratory
Grading: letter grade.
Learn to layout and bend electrical metallic tubing correctly.

ELECT 276 0.5 units
Electrical Pipe Bending (B)
0.3 hours lecture, 0.6 hours laboratory
Recommended Preparation: ELECT 275
Grading: letter grade.
Learn to layout and bend rigid conduit correctly.

ELECT 277 3.0 units
Blueprint Reading for Electricians
3 hours lecture
Recommended Preparation: ELECT 204, 209 OR 212
Grading: letter grade.
Learn to read blueprints used in the electrical industry.

ELECT 279 3.0 units
Supervision for Electricians
3 hours lecture.
Grading: letter grade.
Learn to be a supervisor in an electrical job or for an electrical contractor.

ELECT 435A 2.0 units
Electric Motor Control
2 hours lecture, 1 hour laboratory
Recommended Preparation: ELECT 204, 209 and 212
Grading: letter grade.
Theoretical and practical principles involving the control of direct and alternating current electric motors. Mandatory safety awareness assessment will be conducted early in the course.

ELECT 435B 2.0 units
Electric Motor Control
2 hours lecture, 1 hour laboratory
Prerequisite: ELECT 435A.
Grading: letter grade.
Theoretical and practical principles involving the control of direct and alternating current electric motors.

ELECTRONICS

ELTC 40 2.0 units
Technology & Mathematics Applications
2 hours lecture.
Grading: letter grade.
A study of technology applications and the influence on professional activities and society. Includes the solution of practical technology problems utilizing applied mathematics. Transfer Status: Transferable to CSU, see counselor for limitations.

ELTC 41 2.0 units
Technical Applications of Minicomputers
1 hour lecture, 3 hours laboratory
Grading: letter grade.
Teaches fundamental applications and functions of a minicomputer in technical fields including architectural and mechanical design and drafting, electricity and electronics. Utilizes BASIC as the primary learning language. Transfer Status: Transferable to CSU, see counselor for limitations.

ELTC 50 3.0 units
Intro to Electricity & Electronics
3 hours lecture.
Grading: credit/no credit.
A survey of the principles of operation of a wide range of electronics equipment designed for business, military, industrial, medical and citizen consumer applications. Includes an intro to the fundamental electronic and electric circuit theory. Transfer Status: Transferable to CSU, see counselor for limitations. Course articulated with LBUSD.

ELTC 51 6.0 units
Electronics Technology I
6 hours lecture.
Corequisite: ELTC 51L
Grading: letter grade.
Covers theoretical and practical essentials of the DC series circuit fundamentals and math circuit analysis. Not open for credit to students registered in or with credit in ELTC 51B. Mandatory safety awareness assessment will be conducted early in the course. Transfer Status: Transferable to CSU, see counselor for limitations. Course articulated with LBUSD.

ELTC 51A 3.0 units
Electronics Technology I
3 hours lecture.
Corequisite: ELTC 51LA
Grading: letter grade.
Covers the theoretical and practical essentials of DC series circuit fundamentals and math circuit analysis. Not open for credit to students registered in or with credit
in ELTC 51. Mandatory safety awareness assessment will be conducted early in the course. Transfer Status: Transferable to CSU, see counselor for limitations. Course articulated with LBUSD.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
<th>Hours</th>
<th>Prerequisite(s)</th>
<th>Corequisite(s)</th>
<th>Grading</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTC 51B</td>
<td>3.0</td>
<td>Electronics Technology I</td>
<td>3 hours lecture</td>
<td>ELTC 51A</td>
<td>ELTC 51LB</td>
<td>letter grade</td>
<td>Covers the theoretical and practical essentials of DC parallel and complex circuits, mathematical circuit analysis and an intro to AC theory. Not open for credit to students registered in or with credit in ELTC 51. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 51L</td>
<td>2.0</td>
<td>Electronics Technology I Laboratory</td>
<td>6 hours laboratory</td>
<td>ELTC 51</td>
<td></td>
<td>letter grade</td>
<td>Covers experiments and demonstrations selected to clarify the principles developed in ELTC 51. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 51LA</td>
<td>1.0</td>
<td>Electronics Technology I Laboratory</td>
<td>3 hours laboratory</td>
<td>ELTC 51A</td>
<td></td>
<td>letter grade</td>
<td>Covers experiments and demonstrations selected to clarify the principles developed in ELTC 51A. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 51LB</td>
<td>1.0</td>
<td>Electronics Technology I Laboratory</td>
<td>3 hours laboratory</td>
<td>ELTC 51B</td>
<td></td>
<td>letter grade</td>
<td>Covers experiments and demonstrations selected to clarify the principles developed in ELTC 51B. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 52</td>
<td>6.0</td>
<td>Electronics Technology II</td>
<td>6 hours lecture</td>
<td>ELTC 51 or 51B</td>
<td>ELTC 52L</td>
<td>letter grade</td>
<td>Covers theoretical and practical essentials of AC series circuits and mathematical circuit analysis. Not open to students registered in or with credit in ELTC 52B. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 52A</td>
<td>3.0</td>
<td>Electronics Technology II</td>
<td>3 hours lecture</td>
<td>ELTC 51 or 51B</td>
<td>ELTC 52LA</td>
<td>letter grade</td>
<td>Covers theoretical and practical essentials of AC series circuits and math circuit analysis. Not open to students registered in or with credit in ELTC 52. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 52B</td>
<td>3.0</td>
<td>Electronics Technology II</td>
<td>3 hours lecture</td>
<td>ELTC 52A</td>
<td>ELTC 52LB</td>
<td>letter grade</td>
<td>Covers the theoretical and practical essentials of AC parallel and complex circuits, mathematical circuit analysis, power supplies and solid-state devices. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 52L</td>
<td>2.0</td>
<td>Electronics Technology II Laboratory</td>
<td>6 hours laboratory</td>
<td>ELTC 52</td>
<td></td>
<td>letter grade</td>
<td>Covers experiments and demonstrations selected to clarify the principles developed in ELTC 52. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 52LA</td>
<td>1.0</td>
<td>Electronics Technology II Laboratory</td>
<td>3 hours laboratory</td>
<td>ELTC 52A</td>
<td></td>
<td>letter grade</td>
<td>Covers experiments and demonstrations selected to clarify the principles developed in ELTC 52A. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 53</td>
<td>6.0</td>
<td>Solid-State Circuits</td>
<td>6 hours lecture</td>
<td>ELTC 52 or 52B</td>
<td>ELTC 53L</td>
<td>letter grade</td>
<td>Covers theoretical and practical essentials of solid-state devices and circuits and an analysis of radio frequency (RF) circuits. Not open to students registered in or with credit in ELTC 53B. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 53A</td>
<td>3.0</td>
<td>Solid-State Circuits</td>
<td>3 hours lecture</td>
<td>ELTC 52 or 52B</td>
<td>ELTC 53LA</td>
<td>letter grade</td>
<td>Covers theoretical and practical essentials of solid-state devices and circuits and an analysis of radio frequency (RF) circuits. Not open to students registered in or with credit in ELTC 53. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 53B</td>
<td>3.0</td>
<td>Solid-State Circuits</td>
<td>3 hours lecture</td>
<td>ELTC 53A</td>
<td></td>
<td>letter grade</td>
<td>Covers theoretical and practical essentials of solid-state devices and circuits and an analysis of radio frequency (RF) circuits. Not open to students registered in or with credit in ELTC 53. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Units</td>
<td>Title</td>
<td>Description</td>
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<tr>
<td>ELTC 53LB</td>
<td>2.0</td>
<td>Solid-State Circuits Laboratory</td>
<td>Covers the theoretical and practical essentials of integrated circuit amplifiers, AM transmission and reception and an intro to digital integrated circuits. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
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</tr>
<tr>
<td>ELTC 53LA</td>
<td>1.0</td>
<td>Solid-State Circuits Laboratory</td>
<td>Experiments and demonstrations selected to clarify the principles developed in ELTC 53. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>ELTC 53LB</td>
<td>1.0</td>
<td>Solid-State Circuits Laboratory</td>
<td>Experiments and demonstrations selected to clarify the principles developed in ELTC 53B. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>ELTC 54</td>
<td>6.0</td>
<td>Digital/Telecommunications Circuits</td>
<td>Theoretical and practical essentials of digital electronic subsystems, FM transmission and reception and an intro to microprocessors. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>ELTC 54LA</td>
<td>1.0</td>
<td>Digital/Telecommunications Laboratory</td>
<td>Experiments and demonstrations selected to clarify the principles developed in ELTC 54A. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>ELTC 54LB</td>
<td>1.0</td>
<td>Digital/Telecommunications Laboratory</td>
<td>Experiments and demonstrations selected to clarify the principles developed in ELTC 54B. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>ELTC 55</td>
<td>6.0</td>
<td>Microcomputer/Introduction to Robotics</td>
<td>Theoretical and practical essentials of microprocessors and digital communication circuits. Not open to students registered in or with credit in ELTC 55B. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>ELTC 55A</td>
<td>3.0</td>
<td>Microcomputer/Introduction to Robotics</td>
<td>Theoretical and practical essentials of microprocessors and digital communication circuits. Not open to students registered in or with credit in ELTC 55B. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>ELTC 55B</td>
<td>3.0</td>
<td>Microcomputer/Introduction to Robotics</td>
<td>Theoretical and practical essentials of microprocessors, interfacing devices and system troubleshooting. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
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</tbody>
</table>
## Courses of Instruction

<table>
<thead>
<tr>
<th>Code</th>
<th>Units</th>
<th>Description</th>
<th>Corequisites</th>
<th>Grading</th>
<th>Transfer Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELTC 55L</td>
<td>2.0</td>
<td>Microcomputer/Intro to Robotics Lab 6 hours laboratory</td>
<td>ELTC 55</td>
<td>Letter grade</td>
<td>Through experiments and demonstrations clarifies principles developed in ELTC 55. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 55LA</td>
<td>1.0</td>
<td>Microcomputer/Intro to Robotics Lab 3 hours laboratory</td>
<td>ELTC 55A</td>
<td>Letter grade</td>
<td>Through experiments and demonstrations clarifies principles developed in ELTC 55A. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 55LB</td>
<td>1.0</td>
<td>Microcomputer/Intro to Robotics Lab 3 hours laboratory</td>
<td>ELTC 55B</td>
<td>Letter grade</td>
<td>Through experiments and demonstrations clarifies principles developed in ELTC 55B. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 56A</td>
<td>2.0</td>
<td>Robotics Technology 2 hours lecture.</td>
<td>ELTC 56LA</td>
<td>Letter grade</td>
<td>Covers the theoretical and practical essentials of robotics technology, including AC/DC power and positioning, hydraulic and pneumatic systems, microprocessor fundamentals and programming, voice synthesis and robot interfacing circuitry. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 56B</td>
<td>2.0</td>
<td>Robotics Technology 2 hours lecture.</td>
<td>ELTC 56LB</td>
<td>Letter grade</td>
<td>Covers the theoretical and practical essentials of robotics technology, including AC/DC power and positioning, hydraulic and pneumatic systems, microprocessor fundamentals and programming, voice synthesis and robot interfacing circuitry. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 56C</td>
<td>2.0</td>
<td>Robotics Technology 2 hours lecture.</td>
<td>ELTC 56LC</td>
<td>Letter grade</td>
<td>Covers the theoretical and practical essentials of robotics technology, including AC/DC power and positioning, hydraulic and pneumatic systems, microprocessor fundamentals and programming, voice synthesis and robot interfacing circuitry. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 56LA</td>
<td>1.0</td>
<td>Robotics Technology Laboratory 3 hours laboratory</td>
<td>ELTC 56A</td>
<td>Letter grade</td>
<td>Covers the theoretical and practical essentials of robotics technology, including AC/DC power and positioning, hydraulic and pneumatic systems, microprocessor fundamentals and programming, voice synthesis and robot interfacing circuitry. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 56LB</td>
<td>1.0</td>
<td>Robotics Technology Laboratory 3 hours laboratory</td>
<td>ELTC 56B</td>
<td>Letter grade</td>
<td>Covers the theoretical and practical essentials of robotics technology, including AC/DC power and positioning, hydraulic and pneumatic systems, microprocessor fundamentals and programming, voice synthesis and robot interfacing circuitry. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 56LC</td>
<td>1.0</td>
<td>Robotics Technology Laboratory 3 hours laboratory</td>
<td>ELTC 56C</td>
<td>Letter grade</td>
<td>Covers the theoretical and practical essentials of robotics technology, including AC/DC power and positioning, hydraulic and pneumatic systems, microprocessor fundamentals and programming, voice synthesis and robot interfacing circuitry. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ELTC 201</td>
<td>2.0</td>
<td>Electronics I Laboratory 1 hour lecture, 3 hours laboratory</td>
<td>ELTC 56LA</td>
<td>Credit/No Credit</td>
<td>Designed for beginning electronics technology majors who wish to gain additional insight into the operational analysis and testing of DC electronic circuits.</td>
</tr>
<tr>
<td>ELTC 202</td>
<td>2.0</td>
<td>Electronics II Laboratory 1 hour lecture, 3 hours laboratory</td>
<td>ELTC 56B</td>
<td>Credit/No Credit</td>
<td>For electronic technology students who wish to gain additional insight into the operational and testing of AC electronic circuits.</td>
</tr>
<tr>
<td>ELTC 203</td>
<td>2.0</td>
<td>Electronics Circuits Laboratory 1 hour lecture, 3 hours laboratory</td>
<td>ELTC 56C</td>
<td>Credit/No Credit</td>
<td>For electronic technology students who wish to gain additional insight into the operation and testing of integrated circuits and the calibration, testing and troubleshooting of AM transceivers and antenna systems.</td>
</tr>
<tr>
<td>ELTC 204</td>
<td>2.0</td>
<td>Telecommunications I Laboratory 1 hour lecture, 3 hours laboratory</td>
<td>ELTC 56LA</td>
<td>Credit/No Credit</td>
<td>For electronic technology students who wish to gain additional insight into the operation, calibration, testing and troubleshooting of AM, FM, CB and SSB transceivers, antenna systems and transmission lines.</td>
</tr>
<tr>
<td>ELTC 205A</td>
<td>2.0</td>
<td>Telecommunications II Laboratory 1 hour lecture, 3 hours laboratory</td>
<td>ELTC 56B</td>
<td>Credit/No Credit</td>
<td>For electronic technology majors who wish to gain additional insight into the operation, calibration, testing and troubleshooting of telecommunication systems including microcomputers, video image displays, digital printers, microwave and radar transmission and reception.</td>
</tr>
</tbody>
</table>
ELTC 205B 2.0 units
Telecommunications II Laboratory
1 hour lecture, 3 hours laboratory
Grading: credit/no credit
For electronic technology majors who wish to gain additional insight into the operation, calibration, testing and troubleshooting of telecommunication systems including computers, video image displays, digital printers, microwave and radar transmission and reception.

ELTC 225 4.0 units
Algebra and Trigonometry for Technicians
4 hours lecture
Prerequisite: MATH 805 or 815 or ELTC 40 or ELECT202 or qualification through the math assessment process.
Grading: letter grade.
Formerly MATH 225. Covers basic algebra and trigonometry and their application to the solution of practical problems in technical fields. Not open for credit to students registered in or with credit in MATH 225, 220, 230, 110 and 150.

ELTC 250 1.0 unit
Network Wiring Installation
0.5 hours lecture, 1.5 hours laboratory
Grading: credit/no credit
Learn the basic skills and knowledge to qualify for employment as a network wiring installer. Includes use of tools, copper based cable systems and the National Electrical Code as it applies to network wiring. Students qualify for entry positions in the networking industry.

ELTC 251 3.0 units
Cisco Networking I, Introduction
2.5 hours lecture, 1.5 hours laboratory
Grading: letter grade.
First course in a sequence of four to prepare students to pass the certification test required to become a Cisco Certified Networking Associate (CCNA). Intro to networking, devices, IP Addressing, ARP/RARP, media and design, topology, cabling, electricity, electronics and management. Instruction is based on Cisco curriculum.

ELTC 252 3.0 units
Cisco Networking II, Routers
2.5 hours lecture, 1.5 hours laboratory
Prerequisite: ELTC 251
Grading: letter grade.
Second course in a sequence of four to prepare students to pass the certification test required to become a Cisco Certified Networking Associate (CNA). OSI layers 1-7, WANs, routing, using routers, router components and configuration, IOS, TCP/IP, IP addressing and routing protocols. Instruction is based on Cisco curriculum.

ELTC 253 3.0 units
Cisco Networking III, LAN
2.5 hours lecture, 1.5 hours laboratory
Prerequisite: ELTC 252
Grading: letter grade.
Third course in a sequence of four to prepare students to pass the certification test required to become a Cisco Certified Networking Associate (CCNA). LAN switching, VLAN, LAN design, IGRP, access lists, Novell IPX. Instruction is based on Cisco curriculum.

ELTC 254 3.0 units
Cisco Networking IV, WAN
2.5 hours lecture, 1.5 hours laboratory
Prerequisite: ELTC 253
Grading: letter grade.
Fourth course in a sequence of four to prepare students to pass the certification test required to become a Cisco Certified Networking Associate (CCNA). Wan, WAN design, PPP, ISDN and Frame relay. Instruction is based on Cisco curriculum.

ELTC 426A 2.0 units
Video Systems Technology
1 hour lecture, 3 hours laboratory
Recommended Preparation: ELTC 52
Grading: letter grade.
Includes the theoretical and practical aspects of television, video receivers, digital television, VCR’s, cameras, monitors 8mm and disk systems and satellite communications.

ELTC 426B 2.0 units
Video Systems Technology
1 hour lecture, 3 hours laboratory
Prerequisite: ELTC 426A
Grading: letter grade.
Includes the theoretical and practical aspects of television, video receivers, digital television, VCR’s, cameras, monitors 8mm and disk systems and satellite communications.

EMERGENCY MEDICAL TECHNOLOGY

EMT 251 3.0 units
Emergency Medical Technician
3 hours lecture.
Prerequisite: CPR Card for Health Care Providers
Corequisite: EMT 251L
Recommended Preparation: AH 60
Grading: letter grade.
Develop basic skills in the assessment, rescue, immediate treatment and transport of the urgently ill or injured client. Emphasizes identifying and correcting life-threatening conditions, identifying rescue activities and developing a systematic approach to the care of the client and the performance of rescue activities. Relevant information on traumatic injuries, medical emergencies, environmental hazards, rescue techniques and equipment will be integrated.

EMT 251L 1.5 units
Emergency Medical Technician Laboratory
4.5 hours laboratory
Prerequisite: CPR Card for Health Care due by third week of course.
Corequisite: EMT 251
Recommended Preparation: AH 60
Grading: credit/no credit
Lab application to develop basic skills in the assessment, rescue, immediate treatment and transport of the urgently ill or injured client. Emphasizes identifying and correcting life-threatening conditions, identifying rescue activities and developing a systematic approach to the care of the client and the performance of rescue activities. Technique practice for the care of traumatic injuries, medical emergencies, environmental hazards, rescue techniques and equipment will be integrated.
### Courses of Instruction

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Hours</th>
<th>Prerequisites</th>
<th>Grading</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EMT 252AD</strong></td>
<td>Emergency Medical Tech I Refresher</td>
<td>1.0</td>
<td></td>
<td>1 hour lecture, 0.5 hours laboratory</td>
<td>letter grade</td>
<td>Must have certification that is current or not expired more than six months. Review and update life support measures, CPR and use of emergency medical equipment and supplies for the certified EMT-I.</td>
</tr>
<tr>
<td><strong>ENGR 50</strong></td>
<td>Introduction to Engineering</td>
<td>1.0</td>
<td></td>
<td>1 hour lecture</td>
<td>credit/no credit</td>
<td>Intro to engineering concepts, practicing engineers and the various branches of engineering. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>ENGR 3A</strong></td>
<td>Engineering Graphics</td>
<td>3.0</td>
<td></td>
<td>2 hours lecture, 4 hours laboratory</td>
<td>letter grade</td>
<td>Review the methods of graphic expression common to the various fields of engineering. Follow engineering drafting standards and procedures through working drawings. Learn to solve engineering space problems by orthographic methods. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>ENGR 54</strong></td>
<td>Computer Methods</td>
<td>3.0</td>
<td></td>
<td>3 hours lecture</td>
<td>letter grade</td>
<td>Learn the nature of computers, algorithms and problem solving procedures and programming. Discuss the applications to problems from engineering, computer science, physical sciences and math areas. C++ is the primary programming language. Not open for credit to students registered in or with credit in MATH 64. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>ENGR 35</strong></td>
<td>(CAN ENGR 8) Static</td>
<td>3.0</td>
<td></td>
<td>3 hours lecture</td>
<td>letter grade</td>
<td>Equilibrium of two- and three-dimensional force systems employing free-body diagrams. Analytical and graphical solution of problems involving structures and machines. Friction, energy methods and moments of inertia are discussed. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>ENGL 1</strong></td>
<td>(CAN ENGL 2) Reading and Composition</td>
<td>3.0</td>
<td></td>
<td>4 hours lecture</td>
<td>letter grade</td>
<td>Expository and persuasive writing based on college-level reading, research and critical thinking. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>ENGL 1H</strong></td>
<td>Honors Reading and Composition</td>
<td>3.0</td>
<td></td>
<td>4 hours lecture</td>
<td>letter grade</td>
<td>Expository and persuasive writing based on college-level reading, research and critical thinking. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>ENGL 2</strong></td>
<td>(CAN ENGL 4) Introduction to Literature/Composition</td>
<td>3.0</td>
<td></td>
<td>3 hours lecture</td>
<td>credit/no credit</td>
<td>An intro to literature and composition which places its emphasis on genre, such as short stories, poetry and drama. Writing assignments emphasize expository analysis of the reading material. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>ENGL 3</strong></td>
<td>Argumentative and Critical Writing</td>
<td>4.0</td>
<td></td>
<td>4 hours lecture</td>
<td>letter grade</td>
<td>Writing assignments emphasize expository analysis of the reading material. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
</tbody>
</table>
An intro to the elements and uses of critical thinking and writing. Analytical, persuasive, evaluative and argumentative writing will be emphasized. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ENGL 3H  4.0 units
Honors Argumentative & Critical Writing
4 hours lecture.
Prerequisite: ENGL 1 and qualification for the Honors Program.
Grading: letter grade or credit/no credit
An intro to the elements and uses of critical thinking and writing. Analytical, persuasive, argumentative and evaluative writing will be emphasized, as well as the evaluation and use of both electronic and conventional sources. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ENGL 5AD  1.0 unit
Writing With Computers
0.7 hours lecture, 1.1 hours laboratory
Grading: letter grade or credit/no credit
Learn the skills needed to use the computer for academic or journalistic writing. Plan, write, revise and edit essays, reports, articles and research papers. Transfer Status: Transferable to CSU, see counselor for limitations.

ENGL 6AD  3.0 units
Production of Literary Publications
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Study the principles and practice involved in editing and producing complete literary publications ranging in size and complexity from small pamphlets to books. Use computers in the production process. Transfer Status: Transferable to CSU, see counselor for limitations.

ENGL 7  3.0 units
Editing a Literary Review
3 hours lecture.
Grading: letter grade or credit/no credit
Students interested in editorial work will examine contemporary literary journals, reviews and creative publications and analyze the basic philosophy in editing a journal. Also, they will have hands-on experience analyzing, considering and choosing manuscripts appropriate to the standards of a literary journal. Transfer Status: Transferable to CSU, see counselor for limitations.

ENGL 18  3.0 units
Detective and Crime Fiction
3 hours lecture.
Prerequisite: Eligibility for ENGL 1.
Grading: letter grade or credit/no credit
Examine the origins and development of detective and crime fiction. Read and discuss the works of major 19th and 20th century writers in the genre. Transfer Status: Transferable to CSU, see counselor for limitations.

ENGL 24  3.0 units
College Grammar
3 hours lecture.
Grading: letter grade or credit/no credit
Theory and practice in grammar, usage and the mechanics. Recommended for students who wish to strengthen their knowledge of grammar and to improve their skill in writing and speaking in English. Also recommended for people who need a strong knowledge of grammar, usage and mechanics for professional purposes. Transfer Status: Transferable to CSU, see counselor for limitations.

ENGL 26 (CAN ENGL 6)  3.0 units
Creative Writing I
3 hours lecture
Prerequisite: Eligibility for ENGL 1
Grading: letter grade or credit/no credit
Practical, supervised experience in the fundamentals of writing fiction and poetry. Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.

ENGL 27A  3.0 units
Creative Writing 2: Poetry
3 hours lecture.
Prerequisite: ENGL 26
Grading: letter grade or credit/no credit
Offers advanced, practical experience in writing, appreciating and analyzing poetry. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ENGL 27B  3.0 units
Creative Writing 2: Fiction
3 hours lecture.
Prerequisite: ENGL 26
Grading: letter grade or credit/no credit
Offers advanced, practical experience in writing, appreciating and analyzing fiction. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ENGL 27C  3.0 units
Creative Writing 2: Bio/Autobiography
3 hours lecture.
Prerequisite: ENGL 26
Grading: letter grade or credit/no credit
An advanced course motivating students to investigate autobiographical and biographical material for use in narrative sketches, including family history and the journal. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ENGL 27D  3.0 units
Creative Writing 2: Stage/Screen Writing
3 hours lecture.
Prerequisite: ENGL 26
Grading: letter grade or credit/no credit
An advanced course providing practical, supervised experience in the fundamentals of writing drama for stage, radio, television and/or film. Not open to students registered in or with credit in TART 32. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ENGL 27E  3.0 units
Creative Writing 2: The Novel
3 hours lecture.
Prerequisite: ENGL 26.
Grading: letter grade or credit/no credit
Gives an intensive workshop atmosphere in which to write an original work of book-length fiction. Focuses on theory, technique and practical discipline of writing fiction. Examine models from various genres (literary classics, historical fiction, detective fiction, romance, science fiction and others), discuss the techniques of storytelling and present manuscripts of ones own work for critical discussion. Transfer Status: Transferable to UC/CSU, see counselor for limitations.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 30</td>
<td>3.0 units</td>
<td>Horror and Terror Fiction</td>
<td>Eligibility for ENGL 1</td>
<td>Examine some of the best works in horror and terror fiction in both novel and short story forms. Beginning with origins in England, in the mid-18th century, move historically through the romantic movement, the Victorian era and into the modern age, covering such authors as Ann Radcliffe, Edward Allen Poe, H. P. Lovecraft, Henry James, Ann Rice and Steven King. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ENGL 32</td>
<td>3.0 units</td>
<td>Masterpieces/Asian Literature (In Eng)</td>
<td>Eligibility for ENGL 1</td>
<td>Intro to Asian literature (in translation), with an emphasis on major literary works of India, China and Japan. For students with a general interest in diverse literatures and for those who seek to understand the workings of the eastern mind in its unique historical, cultural and philosophical context. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ENGL 33</td>
<td>3.0 units</td>
<td>Mythology</td>
<td>Eligibility for ENGL 1</td>
<td>A study of myths of various nations and archetypal mythic patterns. The reading and analysis of literature is based on these myths and patterns. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ENGL 35 (CAN ENGL 18)</td>
<td>3.0 units</td>
<td>Interpreting the Short Story</td>
<td>Eligibility for ENGL 1</td>
<td>Learn to interpret the short story and apply meanings found in short stories to real-life situations through class discussion and writing assignments. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ENGL 36</td>
<td>3.0 units</td>
<td>The Novel</td>
<td>Eligibility for ENGL 1</td>
<td>Read, discuss and analyze representative English, American and Continental novels. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ENGL 37</td>
<td>3.0 units</td>
<td>Science Fiction, Fantasy and Horror</td>
<td>Eligibility for ENGL 1</td>
<td>A survey of the major works of speculative fiction with an emphasis on major themes, as well as the relationships with psychology, religion, anthropology, sociology, literary traditions, art and ethics. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
</tbody>
</table>
the western culture. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ENGL 44H 3.0 units
Honors Lit of the Western World I
3 hours lecture.
Prerequisite: Qualification for the Honors Program and eligibility for ENGL 1.
Grading: letter grade or credit/no credit
A survey of the historical development of European literature from Classical times to the Renaissance, emphasizing the application for the aesthetic, philosophical and cultural concepts. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ENGL 45 3.0 units
Literature of the Western World II
3 hours lecture.
Prerequisite: Eligibility for ENGL 1
Grading: letter grade or credit/no credit
Readings in literature of the Western World, emphasizing European literature in translation. Covers the works from the Renaissance to contemporary times and emphasizes the appreciation of aesthetic, philosophical and cultural concepts. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ENGL 45H 3.0 units
Honors Lit of the Western World II
3 hours lecture.
Prerequisite: Qualification for the Honors Program and eligibility for ENGL 1.
Grading: letter grade or credit/no credit
Readings in literature of the Western World, emphasizing European literature in translation. Covers the works from the Renaissance to contemporary times and the appreciation of aesthetic, philosophical and cultural concepts. Satisfactory honors writing sample required before or at entry into the class. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ENGL 46 (CAN ENGL 8) 3.0 units
Survey of English Literature I
3 hours lecture.
Prerequisite: Eligibility for ENGL 1
Grading: letter grade or credit/no credit
A study of English literature from Anglo-Saxon times to 18th Century. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ENGL 47 (CAN ENGL 10) 3.0 units
Survey of English Literature II
3 hours lecture.
Prerequisite: Eligibility for ENGL 1
Grading: letter grade or credit/no credit
A study of English literature from the pre-romantic period to modern times. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ENGL 48 3.0 units
Modern & Contemporary Literature
3 hours lecture.
Prerequisite: Eligibility for ENGL 1
Grading: letter grade or credit/no credit
The literature of the modern era and the writers and thinkers who have influenced contemporary attitudes and ideas. For students interested in literature generally and for those who seek a better understanding of today’s world. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ENGL 48H 3.0 units
Honors Modern/Contemporary Literature
3 hours lecture.
Prerequisite: Qualification for the Honors Program and eligibility for ENGL 1.
Grading: letter grade or credit/no credit
The study of imaginative literature written from the late 19th century until the 1990s. Writers chosen will represent world literature and generally will be those who have exerted a strong influence on contemporary attitudes, ideas, aesthetics and values. Explores the revolutionary ways of writing and seeing that are peculiar to major artists of our century. A satisfactory honors writing sample is required before or at entry into the class. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ENGL 51 2.0 units
Regional Literature: British Isles
1 hour lecture, 3 hours laboratory
Prerequisite: Eligibility for ENGL 1
Grading: letter grade or credit/no credit
An intensified intro to the literature of various regions emphasizing the relationship between the setting, speech, social structure and customs of a particular locality and the literature being studied. Includes classes in residence either at Long Beach City College or at other centers of learning and field trips to the regions being analyzed. Transfer Status: Transferable to CSU, see counselor for limitations.

ENGL 72AD 2.5 units
Shakespeare in Ashland
2 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
An intensified intro to the literature of Shakespeare and to the total experience of the Shakespearean theatre emphasizing the inherent correlation between art and life. Includes an orientation meeting, reading of several plays and a field trip to Ashland, Oregon, to attend performances, special lectures and class discussion meetings. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ENGL 79 3.0 units
Literature of Diversity
3 hours lecture.
Prerequisite: Eligibility for ENGL 1
Grading: letter grade or credit/no credit
An intro study of literature—emphasizing but not confined to twentieth century fiction, poetry, drama and nonfiction prose—by writers representing such diverse and often non-canonical groups as Blacks, women, Asian-Americans, Chicanos/Latinos, Native-Americans and gays and lesbians. Explores the revolutionary ways in which writers from various backgrounds—as artists, activists and intellectuals—have changed the ways in which we create, read and analyze literature. Writers chosen will have exerted a strong influence on contemporary attitudes, ideas and values. May be repeated for credit as topics vary. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ENGL 97AD 3.0 units
Writers Workshop
3 hours lecture.
Prerequisite: ENGL 27A, B, C, D or E
Grading: letter grade or credit/no credit
A creative writing workshop for students who wish to learn additional skills in writing fiction, poetry, drama, biography or family history. Transfer Status: Transferable to CSU, see counselor for limitations.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
</table>
| ENGL 105 | 4.0   | Fundamentals of Writing
4 hours lecture.
Prerequisite: Qualification through the English assessment process, which must be completed before registration for class or ENGL 801B.
Grading: letter grade or credit/no credit
The study and performance of writing to enable the student to express ideas clearly in essay form, using standard written English. Meets composition requirements for the AA and AS Degrees and may prepare students for entrance into ENGL 1. |

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<tr>
<th>Course</th>
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</thead>
</table>
| ENGL 600 | 0.0   | Great Works of Literature
3 hours lecture.
Grading: no grade awarded
An intro to literature emphasizing both the reading of major works of literature and training in written expression. Designed for senior citizens. |

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<tr>
<th>Course</th>
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<th>Description</th>
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</thead>
</table>
| ENGL 627 | 0.0   | Writing for Publication or Pleasure
3 hours lecture.
Grading: no grade awarded
Experience the creative and critical processes in creative writing. Primarily designed for senior citizens. |

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
</table>
| ENGL 801A | 4.0  | College English Skills I
4 hours lecture.
Prerequisite: Qualification through the English assessment process, which must be completed before registration for class.
Grading: credit/no credit
An intro to the basic forms of composition—the paragraph and the essay—with a focus on the development of standard written English skills. Prepares students for either ENGL 801B or 105. |

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<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
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</thead>
</table>
| ENGL 801B | 4.0  | College English Skills II
4 hours lecture.
Prerequisite: ENGL 801A
Grading: credit/no credit
Practice in the basic forms of composition—the paragraph and the essay—with a focus on further developing standard written English skills. Prepares students for ENGL 105. |

### ENGLISH READING

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
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</thead>
</table>
| READ 82  | 3.0   | Proficient Reading
3 hours lecture.
Prerequisite: ENGL 882B or READ 883 or qualification through reading assessment process, which must be completed before registration for the class.
Grading: letter grade or credit/no credit |

Instruction in strategies necessary for college reading with an emphasis on the application of comprehension, vocabulary and critical reading skills to academic and technical reading assignments. Helps students gain efficiency with the challenges of college reading. Transfer Status: Transferable to CSU, see counselor for limitations.

<table>
<thead>
<tr>
<th>Course</th>
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<th>Description</th>
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</thead>
</table>
| READ 83  | 3.0   | Power Reading
3 hours lecture.
Prerequisite: READ 883 or qualification through reading assessment process which must be completed before registration for the class.
Grading: letter grade or credit/no credit
Power reading strategies, analysis of written discourse and application of flexible reading techniques to personal, professional and academic reading. For those with strong comprehension skills. Transfer Status: Transferable to CSU, see counselor for limitations. |

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</table>
| READ 84  | 3.0   | Analytical Reading of Contemporary Prose
3 hours lecture.
Grading: letter grade or credit/no credit
A close examination of contemporary reading materials with the purpose of increasing comprehension through the improvement of analytical and critical reading skills. Transfer Status: Transferable to CSU, see counselor for limitations. |

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
</table>
| READ 85  | 3.0   | Vocabulary Building
3 hours lecture.
Grading: letter grade or credit/no credit
A study of methods to expand general word knowledge and build academic vocabulary emphasizing conceptual development and effective communication. Specifically designed to increase personal vocabulary skills and stimulate appreciation of the English language. Transfer Status: Transferable to CSU, see counselor for limitations. |

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<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Description</th>
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</thead>
</table>
| READ 880 | 3.0   | Reading Basics
3 hours lecture.
Grading: credit/no credit
An initiation to the world of reading for emergent readers. Focuses on creating pathways to literacy through an intro to decoding, word recognition skills, building of vocabulary skills and the development of a foundation for comprehension strategies. |

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<tr>
<th>Course</th>
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</table>
| READ 881 | 3.0   | Reading Essentials
3 hours lecture.
Prerequisite: READ 880 or qualification through reading assessment process, which must be completed before registration for the class.
Grading: credit/no credit
Familiarization with essential reading skills through exposure to various types of expository and narrative passages. Encouragement of reading fluency and continued expansion of vocabulary skills. |

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<tr>
<th>Course</th>
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<th>Description</th>
</tr>
</thead>
</table>
| READ 882 | 3.0   | Reading Development
3 hours lecture. |
Prerequisite: READ 881 or qualification through reading assessment process, which must be completed before registration for the class.
Grading: credit/no credit
Development of essential reading concepts. Focus on literal and inferential comprehension strategies with continued building of vocabulary skills. Exposure to longer text selections which will provide opportunities for applying academic reading skills.

READ 883 3.0 units
Reading Improvement
3 hours lecture.
Prerequisite: ENGL 882A or READ 882 or qualification through reading assessment process, which must be completed before registration for the class.
Grading: credit/no credit
Reinforces instruction in reading improvement strategies and vocabulary enrichment, emphasizing the development of critical comprehension. For students who have previously acquired essential reading skills and need developmental instruction. Focus continues to be on comprehension strategies, mainly the activation of prior knowledge, setting of purposes, making predictions and creating new learning from text. Exposure to longer selections that will provide additional opportunities for note taking, summarizing and outlining, the use of critical thinking skills and the recognition of patterns and organizations in selected literature.

ENGLISH

WRITING/READING CENTER

EWRC 886AD 0.5 units
Reading Adjunct
0.2 hours lecture, 0.9 hours laboratory
Grading: credit/no credit
An individualized study with a reading specialist to supplement instruction in the regular reading and vocabulary classes in which the student is enrolled.

EWRC 887AD 0.5 units
Academic Reading
0.2 hours lecture, 0.9 hours laboratory
Grading: credit/no credit
Individualized study with a reading specialist which emphasizes reading skills required in college courses. Learn comprehension, vocabulary, study skills, critical reading and/or the rate of reading. Intended to help students effectively read materials assigned in transfer level courses.

EWRC 890 0.5 units
Sentence Structure
0.2 hours lecture, 0.9 hours laboratory
Grading: credit/no credit
An intro to a variety of sentence-structure skills. Activities include using complete sentences, correct sentences and varying the structure in a text. For students who want individualized instruction to help them become more fluent writers.

EWRC 891AD 0.5 units
Spelling Principles
0.2 hours lecture, 0.9 hours laboratory
Grading: credit/no credit
Includes the use of the dictionary, syllabication and application of spelling principles and rules based on common patterns of letter combinations in the English language.

EWRC 892AB 0.5 units
Phonics/Reading Fundamentals
0.2 hours lecture, 0.9 hours laboratory
Grading: credit/no credit
Intro course designed to teach the fundamental reading skills of phonics, word analysis and comprehension through individualized assignments.

EWRC 893AC 0.5 units
Punctuation
0.2 hours lecture, 0.9 hours laboratory
Grading: credit/no credit
A self-paced individualized course covering all aspects of the punctuation of English sentences.

EWRC 895AB 0.5 units
Functional Writing
0.3 hours lecture, 0.7 hours laboratory
Grading: credit/no credit
Individualized instruction in basic writing skills. Activities include writing complete sentences, punctuating sentences, spelling correctly and composing short pieces of writing.

EWRC 896AD 0.5 units
Writing Adjunct
0.2 hours lecture, 0.9 hours laboratory
Corequisite: ENGL 1, 105, 801A or 801B
Grading: credit/no credit
A study of writing strategies that supplements ENGL 1, 105 and 801A-B, offering individualized instruction in all phases of the writing process (planning, writing, revision, editing) and helps improve skills in the conventions of writing English: grammar, usage, punctuation, spelling and mechanics.

EWRC 897AD 1.0 unit
Developmental Writing
0.4 hours lecture, 1.9 hours laboratory
Prerequisite: ENGL 105, 801A or 801B
Grading: credit/no credit
For students who need help beyond ENGL 105 or 801A-B to qualify for the next higher course. Provides individualized instruction in the composing process and helps improve skills in the conventions of written English: grammar, sentence structure, punctuation and spelling. Prepares students to repeat the College Assessment test.

EWRC 899AD 0.5 units
English Adjunct
0.2 hours lecture, 0.9 hours laboratory
Grading: credit/no credit
A study of writing strategies, offering individualized instruction in all phases of the writing process (planning, drafting, revising and editing) and helping students improve their skills in the conventions of written English: grammar, usage, punctuation, spelling and mechanics.

ENGLISH AS SECOND LANGUAGE

ESL 33 5.0 units
College English for ESL Students
6 hours lecture.
COURSES OF INSTRUCTION

Prerequisite: ESL 56, 56X or placement by the college assessment process.
Grading: letter grade.
An intensive course in reading and writing English focusing on academic language skills needed for the AA and AS degrees; skills to include expository essay writing, summarizing, paraphrasing, reading comprehension and critical analysis. Prepares students for ESL 34. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ESL 54X 4.0 units
Effective Writing with Computers for ESL
6 hours lecture.
Prerequisite: One semester of ESL 147AB or placement by the college assessment process.
Grading: letter grade or credit/no credit
Intensive sentence structure practice with an emphasis on coordination and subordination leading to composition of coherent paragraphs, incorporating the use of transitional devices. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ESL 33X 5.0 units
College English with Computers for ESL
6 hours lecture.
Prerequisite: ESL 56, 56X or placement by the college assessment process.
Grading: letter grade.
An intensive course in reading and writing English focusing on academic language skills needed for the AA and AS degrees; skills to include expository essay writing, summarizing, paraphrasing, reading comprehension and critical analysis. Use personal computers to complete the writing assignments. Preparation for entrance into ESL 34 or 34X. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ESL 34 5.0 units
College English for ESL Students
6 hours lecture.
Prerequisite: ESL 33, 33X or placement by the college assessment process.
Grading: letter grade.
An intensive course in reading and writing focusing on academic language skills needed for the AA and AS degrees and for entrance into ENGL 1; skills to include expository and argumentative essay writing, summarization of academic readings and current events, critical analysis of readings in literature, research and documentation. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ESL 34X 5.0 units
College Engl/Computers for ESL Students
6 hours lecture.
Prerequisite: ESL 33, 33X or placement by the college assessment process.
Grading: letter grade.
An intensive course in reading and writing focusing on academic language skills needed for the AA and AS degrees and for entrance into English 1; skills to include expository and argumentative essay writing, summarization of academic readings and current events, critical analysis of readings in literature, research and documentation. Personal computers are used to complete assignments. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ESL 56 4.0 units
College Writing for ESL
6 hours lecture.
Prerequisite: ESL 147AB, 54, 54X or placement by the college assessment process.
Grading: letter grade or credit/no credit
Intensive summarizing, paraphrasing and development of conceptual paragraphs incorporating elements of cohesion, unity and audience. Rhetorical modes to include narration, description, explanation and persuasion. Part of a sequence. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ESL 56X 4.0 units
College Writing with Computers for ESL
6 hours lecture.
Prerequisite: ESL 54, 54X, one semester of ESL 147AB or placement by the college assessment process.
Grading: letter grade or credit/no credit
Intensive summarizing, paraphrasing and development of conceptual paragraphs incorporating elements of cohesion, unity and audience. Rhetorical modes to include narration, description, explanation and persuasion. Complete writing assignments using a personal computer. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ESL 63 4.0 units
Effective Reading for ESL Students
6 hours lecture.
Prerequisite: One semester of ESL 147AB and qualification through the ESL Department reading assessment process.
Grading: letter grade or credit/no credit
College-level ESL reading designed to improve student ability to comprehend written English. Focuses on using lexical and grammatical clues to derive sentence meaning, develop vocabulary, extract the main ideas, extrapolate information, draw conclusions, recognize basic written discourse conventions, interpret charts, timelines and tables and interact with text through writing. Application primarily to academic prose and fiction (short stories). Part of a sequence; not required for entry into ESL 65 except for individual cases. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ESL 65 4.0 units
College Read/Listen for ESL Students
6 hours lecture.
### Courses of Instruction

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Title</th>
<th>Hours Lecture</th>
<th>Prerequisite</th>
<th>Grading</th>
<th>Transfer Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESL 640</td>
<td>0.0</td>
<td>English for Everyday 0</td>
<td>6 hours lecture</td>
<td>ESL 147AB and qualification through the ESL Department reading assessment process; or ESL 56 or 63.</td>
<td>no grade awarded</td>
<td>Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ESL 641</td>
<td>0.0</td>
<td>English for Everyday 1</td>
<td>6 hours lecture</td>
<td>ESL 640 or equivalent skills as determined by ESL placement process.</td>
<td>no grade awarded</td>
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</tr>
<tr>
<td>ESL 642</td>
<td>0.0</td>
<td>English for Everyday 2</td>
<td>6 hours lecture</td>
<td>ESL 640 or equivalent skills as determined by ESL placement process.</td>
<td>no grade awarded</td>
<td></td>
</tr>
<tr>
<td>ESL 643</td>
<td>0.0</td>
<td>English for Everyday 3</td>
<td>6 hours lecture</td>
<td>ESL 642 or equivalent skills as determined by ESL placement process.</td>
<td>no grade awarded</td>
<td></td>
</tr>
<tr>
<td>ESL 644</td>
<td>0.0</td>
<td>English for Everyday 4</td>
<td>6 hours lecture</td>
<td>ESL 643 or equivalent skills as determined by the ESL placement process.</td>
<td>no grade awarded</td>
<td></td>
</tr>
<tr>
<td>ESL 645</td>
<td>0.0</td>
<td>English for Everyday 5</td>
<td>6 hours lecture</td>
<td>ESL 644 or equivalent skills as determined by ESL placement process.</td>
<td>no grade awarded</td>
<td></td>
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<tr>
<td>Course Code</td>
<td>Units</td>
<td>Course Title</td>
<td>Hours</td>
<td>Description</td>
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<tr>
<td>ESL 800AB</td>
<td>0.5</td>
<td>Basic ESL Reading</td>
<td>1.5</td>
<td>Learn to read and comprehend words, sentences, paragraphs and passages or texts without the dependency on a dictionary. Learn the rules for morphology, spelling and reading to assist in vocabulary building, pronunciation and comprehension. Develop the necessary skills to find facts, details and the main idea of a passage.</td>
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<tr>
<td>ESL 801AB</td>
<td>0.5</td>
<td>Reading Skills for ESL Students</td>
<td>1.5</td>
<td>Learn to read and understand words, sentences, paragraphs and passages or texts without the dependency on a dictionary. Learn the rules for morphology, spelling and reading to assist in vocabulary building, pronunciation and comprehension. Develop the necessary skills to find facts, details and the main idea of a passage.</td>
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<tr>
<td>ESL 802AB</td>
<td>0.5</td>
<td>Reading Skills for ESL Students</td>
<td>1.5</td>
<td>Learn to read and understand words, sentences, paragraphs and passages or texts without the dependency on a dictionary. Learn the rules for morphology, spelling and reading to assist in vocabulary building, pronunciation and comprehension. Develop the necessary skills to find facts, details and the main idea of a passage.</td>
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<tr>
<td>ESL 803AB</td>
<td>0.5</td>
<td>Reading Skills for ESL Students</td>
<td>1.5</td>
<td>Learn to read and understand words, sentences, paragraphs and passages or texts without the dependency on a dictionary. Learn the rules for morphology, spelling and reading to assist in vocabulary building, pronunciation and comprehension. Develop the necessary skills to find facts, details and the main idea of a passage.</td>
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<tr>
<td>ESL 804AB</td>
<td>0.5</td>
<td>Reading Skills for ESL Students</td>
<td>1.5</td>
<td>Learn to read and understand words, sentences, paragraphs and passages or texts without the dependency on a dictionary. Learn the rules for morphology, spelling and reading to assist in vocabulary building, pronunciation and comprehension. Develop the necessary skills to find facts, details and the main idea of a passage.</td>
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<tr>
<td>ESL 805AB</td>
<td>0.5</td>
<td>Reading Skills for ESL Students</td>
<td>1.5</td>
<td>Learn to read and understand words, sentences, paragraphs and passages or texts without the dependency on a dictionary. Learn the rules for morphology, spelling and reading to assist in vocabulary building, pronunciation and comprehension. Develop the necessary skills to find facts, details and the main idea of a passage.</td>
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<tr>
<td>ESL 806AB</td>
<td>0.5</td>
<td>Reading Skills for ESL Students</td>
<td>1.5</td>
<td>Learn to read and understand words, sentences, paragraphs and passages or texts without the dependency on a dictionary. Learn the rules for morphology, spelling and reading to assist in vocabulary building, pronunciation and comprehension. Develop the necessary skills to find facts, details and the main idea of a passage.</td>
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<tr>
<td>ESL 810AB</td>
<td>1.0</td>
<td>Fundamentals of English Grammar</td>
<td>3</td>
<td>Learn to read and understand words, sentences, paragraphs and passages or texts without the dependency on a dictionary. Learn the rules for morphology, spelling and reading to assist in vocabulary building, pronunciation and comprehension. Develop the necessary skills to find facts, details and the main idea of a passage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESL 812AB</td>
<td>0.5</td>
<td>Reading for Information and Pleasure</td>
<td>1.5</td>
<td>Learn to read and understand words, sentences, paragraphs and passages or texts without the dependency on a dictionary. Learn the rules for morphology, spelling and reading to assist in vocabulary building, pronunciation and comprehension. Develop the necessary skills to find facts, details and the main idea of a passage.</td>
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<tr>
<td>ESL 813AB</td>
<td>0.5</td>
<td>Conversation 2</td>
<td>1.5</td>
<td>Learn to read and understand words, sentences, paragraphs and passages or texts without the dependency on a dictionary. Learn the rules for morphology, spelling and reading to assist in vocabulary building, pronunciation and comprehension. Develop the necessary skills to find facts, details and the main idea of a passage.</td>
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<tr>
<td>ESL 814AB</td>
<td>0.5</td>
<td>Composition for ESL Students</td>
<td>1.5</td>
<td>Learn to read and understand words, sentences, paragraphs and passages or texts without the dependency on a dictionary. Learn the rules for morphology, spelling and reading to assist in vocabulary building, pronunciation and comprehension. Develop the necessary skills to find facts, details and the main idea of a passage.</td>
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Courses of Instruction

**ESL 815AB** 1.0 unit
**Improvement of Pronunciation 1**
3 hours lecture.
Prerequisite: ESL 645, one semester of ESL 845AB or equivalent skills as determined by the ESL or the college assessment process.
Grading: credit/no credit
This first semester-long pronunciation course is designed to improve the intermediate student’s mastery of individual sounds, words and phrases in American English.

**ESL 816AB** 0.5 units
**Preparation for College Classes**
1.5 hours lecture.
Prerequisite: ESL 645, one semester of ESL 845AB or equivalent skills as determined by the ESL or the college assessment process.
Grading: credit/no credit
Includes college study techniques, college orientation and opportunities for further study.

**ESL 817AB** 1.0 unit
**Improvement of Pronunciation 2**
3 hours lecture.
Prerequisite: ESL 815AB
Grading: credit/no credit
This second semester-long pronunciation class is designed to improve the intonation, rhythm and melody of spoken English for the high-intermediate/advanced ESL student.

**ESL 818AB** 0.5 units
**Vocabulary Development**
1.5 hours lecture.
Prerequisite: ESL 645, one semester of ESL 845AB or equivalent skills as determined by the ESL or the college assessment process.
Grading: credit/no credit
Increases the English vocabulary range of students who do not speak English as their mother tongue.

**ESL 819A** 0.5 units
**Conversation at Crossroads Cafe**
1.5 hours lecture.
Prerequisite: ESL 842AB or equivalent skills as determined by placement examination.
Grading: credit/no credit
A six-part, multi-level conversation course using the “Crossroads Cafe” video series as the focus for conversation practice, vocabulary building, basic grammar and idiomatic expressions. Covers topics such as past experiences, single parenting, making offers and adjusting to a new culture.

**ESL 819B** 0.5 units
**Conversation at Crossroads Cafe**
1.5 hours lecture.
Prerequisite: Eligibility for ESL 842AB
Grading: credit/no credit
A six-part, multi-level conversation course using the “Crossroads Cafe” video series as the focus for conversation practice, vocabulary building, basic grammar and idiomatic expressions. Covers topics such as making invitations, taxes, talking about the future and financial difficulties, asking for and giving permission, about asking for and offering help, becoming a citizen, dislikes, reporting information and aging.

**ESL 819C** 0.5 units
**Conversation at Crossroads Cafe**
1.5 hours lecture.
Prerequisite: Eligibility for ESL 842AB
Grading: credit/no credit
A six-part, multi-level conversation course using the “Crossroads Cafe” video series as the focus for conversation practice, vocabulary building, basic grammar and idiomatic expressions. Covers discussing people, roles of a police officer, giving and responding to compliments, consumer scams, asking for clarification, discrimination, talking about possibilities and solutions to gang problems.

**ESL 819D** 0.5 units
**Conversation at Crossroads Cafe**
1.5 hours lecture.
Prerequisite: Eligibility for ESL 842AB
Grading: credit/no credit
A six-part, multi-level conversation course using the “Crossroads Cafe” video series as the focus for conversation practice, vocabulary building, basic grammar and idiomatic expressions. Covers talking about abilities, roles couples choose, describing things, hospitals, intercultural relations, talking about likes and dislikes, reporting information and aging.

**ESL 819E** 0.5 units
**Conversation at Crossroads Cafe**
1.5 hours lecture.
Prerequisite: Eligibility for ESL 842AB
Grading: credit/no credit
A six-part, multi-level conversation course using the “Crossroads Cafe” video series as the focus for conversation practice, vocabulary building, basic grammar and idiomatic expressions. Covers talking about making complaints, tenants and landlord rights and responsibilities, comparing things, worker safety, making promises, local government, giving advice and raising children.

**ESL 819F** 0.5 units
**Conversation at Crossroads Cafe**
1.5 hours lecture.
Prerequisite: Eligibility for ESL 842AB
Grading: credit/no credit
A six-part, multi-level conversation course using the “Crossroads Cafe” video series as the focus for conversation practice, vocabulary building, basic grammar and idiomatic expressions. Covers talking about asking for and offering help, becoming a citizen, financial difficulties, asking for and giving permission, making invitations, taxes, talking about the future and wedding customs.

**ESL 840AB** 0.5 units
**Introduction to College English**
6 hours lecture.
Grading: credit/no credit
First of a six-course program in the basics of English structure, emphasizing the mastery of productive grammatical features, accurate pronunciation and comprehension of spoken English and correct written expression. Brings beginners up to basic college-level in the language and prepares them for success in academic and vocational programs offered by the college. Meets the citizenship requirement.
Courses of Instruction

**ESL 841AB** 0.5 units  
**Introduction to College English I**  
6 hours lecture.  
Prerequisite: One semester of ESL 640/840AB or qualify through the ESL placement process.  
Grading: credit/no credit  
Second of a six-course program in the basics of English structure, emphasizing the mastery of productive grammatical features, accurate pronunciation and comprehension of spoken English and correct written expression. Brings beginners up to basic college-level in the language and prepares them for success in academic and vocational programs offered by the college. Meets the citizenship requirements.

**ESL 842AB** 1.0 unit  
**Introduction to College English II**  
6 hours lecture.  
Prerequisite: One semester of ESL 641/841AB or qualify through the ESL placement process.  
Grading: credit/no credit  
Third in a six-course series in the basics of English structure, emphasizing the mastery of productive grammatical features, accurate pronunciation and comprehension of spoken English and correct written expression. Brings beginners up to basic college-level in the language and prepares them for success in academic and vocational programs offered by the college. Meets the citizenship requirement.

**ESL 843AB** 1.0 unit  
**Introduction to College English III**  
6 hours lecture.  
Prerequisite: One semester of ESL 642/842AB or qualify through the ESL placement process.  
Grading: credit/no credit  
Fourth in a six-course series in the basics of English structure, emphasizing the mastery of productive grammatical features, accurate pronunciation and comprehension of spoken English and correct written expression. Brings beginners up to basic college-level in the language and prepares them for success in academic and vocational programs offered by the college. Meets the citizenship requirement.

**ESL 844AB** 1.0 unit  
**Introduction to College English IV**  
6 hours lecture.  
Prerequisite: One semester of ESL 643/843AB or qualify through ESL placement process.  
Grading: credit/no credit  
Fifth in a six-course series in the basics of English structure, emphasizing the mastery of productive grammatical features, accurate pronunciation and comprehension of spoken English and correct written expression. Brings beginners up to basic college-level in the language and prepares them for success in academic and vocational programs offered by the college. Meets the citizenship requirement.

**ESL 845AB** 1.0 unit  
**Introduction to College English V**  
6 hours lecture.  
Prerequisite: One semester of ESL 644/844AB or qualify through the ESL placement process.  
Grading: credit/no credit  
Sixth in a six-course series in the basics of English structure, emphasizing the mastery of productive grammatical features, accurate pronunciation and comprehension of spoken English and correct written expression. Brings beginners up to basic college-level in the language and prepares them for success in academic and vocational programs offered by the college. Meets the citizenship requirements.

**ESLP 1** 2.0 units  
ESL Powerpack 1  
Prerequisite: ESL 645, one semester of ESL 845AB or equivalent skills as determined by the ESL or the college assessment process.  
Grading: letter grade or credit/no credit  
Intensive practice in conversation, pronunciation, reading and vocabulary with an emphasis on strengthening the oral communication skills necessary for success in college courses. This course gives credit for ESL 812AB, 814AB, 815AB and 818AB. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

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**ENGLISH AS SECOND LANGUAGE—LEARNING CENTER**

**ESLLC 699** 0.0 units  
**Basic Skills for ESL Students**  
3 hours laboratory  
Grading: no grade awarded  
Individualized programmed instruction or tutoring for non-native speakers of English who are enrolled in courses and need to improve their mastery of English as a Second Language; who are enrolled in ESL courses but need additional assistance in building or improving literary or communicative skills.

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**ENGLISH AS SECOND LANGUAGE—VOCATIONAL SURVIVAL**

**ESLVS 620** 0.0 units  
**Voc English for Beginning ESL Students I**  
10 hours lecture.  
Grading: no grade awarded  
For students who lack basic reading and writing and/or general academic skills. Reading and writing will be developed within a generalized vocational context.

**ESLVS 621** 0.0 units  
**Voc English for Beginning ESL Students II**  
10 hours lecture.  
Prerequisite: ESLVS620  
Grading: no grade awarded  
For those who lack basic reading and writing and/or general academic skills. Reading and writing will be developed within a generalized vocational context.

**ESLVS 622** 0.0 units  
**Voc English for Beginning ESL Students III**  
10 hours lecture.  
Prerequisite: ESLVS621  
Grading: no grade awarded  
For those who lack basic reading and writing and/or general academic skills and are unable to make the transition from ESL 621 to ESL 623 without further development of their oral and written language skills. Language development will take place within a generalized vocational context.
ESLV 623 0.0 units
Voc English for ESL Students 1
10 hours lecture.
Prerequisite: ESLVS622
Grading: no grade awarded
For those whose basic reading and writing and/or general academic skills are limited. Reading and writing will be developed within a generalized vocational context in order to prepare the student for vocational instruction and/or employment.

ESLV 624 0.0 units
Voc English for ESL Students 2
10 hours lecture.
Prerequisite: ESLVS623
Grading: no grade awarded
A more advanced course to prepare for enrollment in specific pre-vocational English or vocational training courses. Reading and writing will be developed within a generalized vocational context in order to prepare for eventual employment.

ESLV 625 0.0 units
On-The-Job English For ESL Students
10 hours lecture.
Prerequisite: ESLVS624
Grading: no grade awarded
An advanced course to aid the working student who encounters language difficulties on the job site. Reading, writing and speaking will be developed within a generalized vocational context and then applied to specific problems that students experience.

ENGLISH AS SECOND LANGUAGE—VOCATIONAL

ESLV 270 2.0 units
Intercultural Communication
6 hours lecture.
Prerequisite: ESL 645, one semester of 845AB or equivalent skills as determined by ESL placement process.
Grading: letter grade or credit/no credit
Gives intermediate students the life skills needed to communicate effectively. An intro to everyday American culture and role-playing situations which demonstrates the culture. Intercultural differences will also be emphasized.

ESLV 271 2.0 units
Social Interaction Skills
6 hours lecture.
Prerequisite: ESL 645, one semester of 845AB or equivalent skills as determined by ESL placement process.
Grading: letter grade or credit/no credit
A life-skills course to help the intermediate student who encounters language difficulties in everyday life situations. The functions of language and idiomatic expressions will be emphasized.

ESLV 272 2.0 units
Occupational Communication Skills
6 hours lecture.
Prerequisite: ESL 645, one semester of 845AB or equivalent skills as determined by ESL placement process.
Grading: letter grade or credit/no credit
An intermediate level communication course to aid ESL students who encounter job-related language difficulties. Cultural information, language for interviewing, understanding work-related policies and procedures will be taught.

ESLV 273 2.0 units
Grammar Skills
6 hours lecture.
Prerequisite: ESL 645, one semester of 845AB or equivalent skills as determined by ESL placement process.
Grading: letter grade or credit/no credit
A life-skills course for intermediate ESL students who have studied the basic grammatical concepts of the English language. Grammar is taught in communicative context with an emphasis on idiomatic language and useful expressions.

ESLV 274 2.0 units
Reading Skills
6 hours lecture.
Prerequisite: ESL 645, one semester of 845AB or equivalent skills as determined by ESL placement process.
Grading: letter grade or credit/no credit
Acquaints intermediate students with various cultural aspects of life in the United States. Read and discuss narratives, general information articles from journals, excerpts from popular magazines and American short stories.

ESLV 275 2.0 units
Occupational Writing Skills
6 hours lecture.
Prerequisite: ESL 645, one semester of 845AB or equivalent skills as determined by ESL placement process.
Grading: letter grade or credit/no credit
An intermediate level life-skills course to help students who encounter writing difficulties on the job. Memos, cover letters, general business letters, resumes and job applications will be emphasized.

ESLV 275X 2.0 units
Occupational Writing Skills W/Computers
6 hours lecture.
Prerequisite: ESL 645, one semester of 845AB or equivalent skills as determined by ESL placement process.
Grading: letter grade or credit/no credit
An intermediate level life-skills course designed to help students who encounter writing difficulties on the job. Memos, cover letters, general business letters, resumes and job applications will be emphasized. Use personal computers to complete writing assignments.

ENVIRONMENTAL SCIENCE

ENVRS 1 3.0 units
Energy for the Future
3 hours lecture.
Grading: letter grade or credit/no credit
An intro course which will familiarize the student with the fundamental principles of environmental systems and discuss current environmental issues. Interpretation of data in drawing a conclusion is stressed, along with the ability to criticize methods of data collection and experimentation. Topics include energy production and
Courses of Instruction

consumption, scarcity of resources, conservation, pollution and governmental regulation. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

FAMILY & CONSUMER STUDIES

FACS 50 3.0 units
Consumer Awareness
3 hours lecture.
Grading: letter grade or credit/no credit
Designed to help the student function effectively as a consumer in today’s marketplace. Included are wise use of credit, money management, advertising, automotive buying and repair, landlord-tenant, warranties and consumer recourse. Transfer Status: Transferable to CSU, see counselor for limitations.

FACS 64 3.0 units
Life Management
3 hours lecture.
Grading: letter grade or credit/no credit
Develop the abilities, skills and attitudes needed in planning and managing for today’s living. Topics include decision-making, time management, energy conservation and dealing with change. Transfer Status: Transferable to CSU, see counselor for limitations.

FASHION

FD 3 2.0 units
Intro to Careers in Design/Merchandising
2 hours lecture.
Grading: letter grade or credit/no credit
A survey of the fashion industry and related occupations. Emphasizes employment opportunities, personal qualifications and skills required for employment. Transfer Status: Transferable to CSU, see counselor for limitations. Course articulated with LBUSD.

FD 5 1.5 units
Intro/Manufacturing for Design/Merchan
1.5 hours lecture.
Grading: letter grade or credit/no credit
An intro to garment manufacturing in the apparel industry. From the design concept through sourcing and pricing to the production of a clothing line. Required for fashion design and fashion merchandising majors. Transfer Status: Transferable to CSU, see counselor for limitations.

FD 9 (CAN HEC 20) 3.0 units
Clothing Selection
3 hours lecture.
Grading: letter grade or credit/no credit
Apparel selection for the individual and family based on aesthetic guidelines, cultural influences and consumer needs. Transfer Status: Transferable to CSU, see counselor for limitations.

FD 10 (CAN HEC 6) 3.0 units
Textile Fibers and Fabrics
3 hours lecture.
Grading: letter grade or credit/no credit
A study of textile fibers and fabrics, their selection, use and care of wearing apparel and home furnishings. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

FD 20 (CAN HEC 22) 3.0 units
Introduction to Fashion Merchandising
3 hours lecture.
Grading: letter grade or credit/no credit
Explains and illustrates the scope of the fashion industry, its value, development and its job potential. An overview of curriculum content and the inter-relationship of the
courses involved. Transfer Status: Transferable to CSU, see counselor for limitations.

FD 22A  1.5 units
Merchandising for Profit I
1.5 hours lecture
Recommended Preparation: FD 20
Grading: letter grade or credit/no credit
Covers the calculation, interpretation and analysis of the profit and loss statement. Discusses basic pricing and repricing of merchandise and explains the importance of markup to profitable merchandising. Typically offered for 9 weeks. Transfer Status: Transferable to CSU, see counselor for limitations.

FD 22B  1.5 units
Merchandising for Profit II
1.5 hours lecture
Recommended Preparation: FD 20
Grading: letter grade or credit/no credit
Emphasizes quantitative merchandising techniques as applied to inventory and dollar control, discounts, dating procedures and shipping terms. Typically offered for 9 weeks. Transfer Status: Transferable to CSU, see counselor for limitations.

FD 23  3.0 units
Fashion/Merchandise Buying
3 hours lecture.
Grading: letter grade or credit/no credit
Designed to provide the knowledge of the functions of buying merchandise for retail or wholesale businesses. Transfer Status: Transferable to CSU, see counselor for limitations.

FD 24AB  1.5 units
Beginning Sewing
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Covers the construction of simple woven and knit garments, correct pattern size, selection of appropriate patterns and fabrics. Student projects are selected in accordance with skill level and interest. Transfer Status: Transferable to CSU, see counselor for limitations.

FD 25AB  1.5 units
Intermediate Sewing
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Intermediate clothing construction techniques as they apply to both woven and knit fabrics. Typical projects include a tailored shirt or blouse, fitted slacks with a waistband and knit shirts with neckline variations. Transfer Status: Transferable to CSU, see counselor for limitations.

FD 26AB  2.0 units
Advanced Sewing
1 hour lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Advanced construction techniques using complex patterns and difficult fabrics. Consumer considerations for selection of design, fabric and equipment for professional clothing construction. Transfer Status: Transferable to CSU, see counselor for limitations.

FD 27AB  1.5 units
Production Sewing
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Principles and methods of stitching and garment construction on power machines as applied to the production methods of the garment manufacturing industry. Occupational certificate is awarded upon completion of eight units. Transfer Status: Transferable to CSU, see counselor for limitations.

FD 29AB  2.0 units
Tailoring
1 hour lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Principles of tailoring techniques and finishes as applied to men’s or women’s clothing. Transfer Status: Transferable to CSU, see counselor for limitations.

FD 32  3.0 units
History of Fashion
3 hours lecture.
Grading: letter grade or credit/no credit
A survey of the evolution of clothing styles from the ancient Egyptian to the present time period. The importance of the costume as a social record and its influence on present styles is emphasized. Transfer Status: Transferable to CSU, see counselor for limitations.

FD 36A  1.5 units
Pattern Drafting I: Basic Block
1 hour lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
A beginning course in pattern drafting. Develop a basic block pattern for the commercial dress form or individual figure. Transfer Status: Transferable to CSU, see counselor for limitations.

FD 36B  1.5 units
Pattern Drafting II: Pattern Manipulation
1 hour lecture, 1.5 hours laboratory
Recommended Preparation: FD 36A
Grading: letter grade or credit/no credit
An intermediate course in the manipulation of the basic blocks drafted for commercial dress forms or individual figure. Transfer Status: Transferable to CSU, see counselor for limitations.

FD 37A  1.5 units
Pattern Draping I: Basic Sloper
1 hour lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
An intermediate course which includes freehand methods of pattern making and creating the basic sloper in muslin on dress forms or live models. Each muslin is turned into a paper pattern, cut and constructed to produce the finished garment. Transfer Status: Transferable to CSU, see counselor for limitations.

FD 37B  1.5 units
Pattern Draping II: Sloper Manipulations
1 hour lecture, 1.5 hours laboratory
Recommended Preparation: FD 37A
Grading: letter grade or credit/no credit
An intermediate course in the freehand methods of manipulating a basic sloper to create finished designs. Transfer Status: Transferable to CSU, see counselor for limitations.

FD 38A  3.0 units
Fashion Design I
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
A survey of the evolution of clothing styles from the ancient Egyptian to the present time period. The importance of the costume as a social record and its influence on present styles is emphasized. Transfer Status: Transferable to CSU, see counselor for limitations.
Courses of Instruction

Recommended Preparation: FD 36B and one semester of 214AB or 215AB (may be taken concurrently)
Grading: letter grade or credit/no credit
An advanced course that provides the opportunity to design, illustrate, draft and construct sample full-scale designs for a portfolio or fashion showing. Transfer Status: Transferable to CSU, see counselor for limitations.

**FD 38B** 3.0 units
**Fashion Design II**
2 hours lecture, 3 hours laboratory
Recommended Preparation: FD 37B or one semester of 214AB or 215AB (may be taken concurrently)
Grading: letter grade or credit/no credit
An advanced course that provides the opportunity to design, illustrate, draft, drape and construct sample full-scale designs for a portfolio or fashion showing. Transfer Status: Transferable to CSU, see counselor for limitations.

**FD 38C** 3.0 units
**Fashion Design III**
2 hours lecture, 3 hours laboratory
Recommended Preparation: FD 38B
Grading: letter grade or credit/no credit
An advanced course that provides the opportunity to design, illustrate, draft, drape and construct sample full-scale designs for a portfolio or fashion showing. Transfer Status: Transferable to CSU, see counselor for limitations.

**FD 38D** 3.0 units
**Fashion Design IV**
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
An advanced course that provides the opportunity to design a complete line for a given season and classification (i.e., sportswear, junior market). Produce a line presentation price range, production patterns, cost sheets and three toilets with the first garment from the line. Transfer Status: Transferable to CSU, see counselor for limitations.

**FD 39A** 1.0 unit
**Pattern Grading**
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
An intermediate course in sizing commercial and individual patterns for the adult run of sizes. Covers grading ruler, grading machine and computer grading. Typically offered for nine weeks. Transfer Status: Transferable to CSU, see counselor for limitations.

**FD 40AB** 1.0 unit
**Advanced and Production Pattern Drafting**
0.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: FD 36B
Grading: letter grade or credit/no credit
A survey of the problems of the advanced pattern manipulation and production pattern as related to developing a commercial fit for original designs. Also covered are techniques of industrial procedures found in the garment industry. Transfer Status: Transferable to CSU, see counselor for limitations.

**FD 41AD** 2.5 units
**Fashion Show Production**
2 hours lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Learn to plan and implement a professional fashion production. Information on the details of planning, budgeting and producing fashion oriented events, plus the opportunity for “hands-on” experience in producing an actual event will be provided. Transfer Status: Transferable to CSU, see counselor for limitations.

**FD 70AD** 1.0 unit
**Work Experience Issues-Fashion Design**
1 hour lecture.
Corequisite: Enrollment in at least seven units including FD 71AD, 72AD or 73AD and 70AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment directly related to the industry. Transfer Status: Transferable to CSU, see counselor for limitations.

**FD 71AD** 1.0 unit
**Work Experience-Fashion Design**
4.1 hours laboratory
Corequisite: Enrollment in at least seven units including FD 70AD and 71AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment directly related to the industry. Transfer Status: Transferable to CSU, see counselor for limitations.

**FD 72AD** 2.0 units
**Work Experience-Fashion Design**
8.3 hours laboratory
Corequisite: Enrollment in at least seven units including FD 70AD and 72AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment directly related to the industry. Transfer Status: Transferable to CSU, see counselor for limitations.

**FD 73AD** 3.0 units
**Work Experience-Fashion Design**
12.5 hours laboratory
Corequisite: Enrollment in at least seven units including FD 70AD and 73AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment directly related to the industry. Transfer Status: Transferable to CSU, see counselor for limitations.

**FD 200** 1.0 unit
**Fashion Prediction/Promotion: Crit View**
1 hour lecture.
Grading: letter grade or credit/no credit

**FD 211AB** 1.0 unit
**Textile Design: Beading**
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
Various specialty techniques in hand beading.

**FD 212AB** 1.0 unit
**Textile Design: Airbrush**
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
Various specialty techniques in textile design.
FD 213AB 1.0 unit  
Textile Design: Hand Painting  
0.5 hours lecture, 1.5 hours laboratory  
Grading: letter grade or credit/no credit  
Various specialty techniques in hand painting on textiles.

FD 214AB 2.0 units  
Quick Sketch Croquis Drawing  
1 hour lecture, 3 hours laboratory  
Grading: letter grade or credit/no credit  
Beginning sketch course focusing on skills necessary for the fashion industry. Learn to draw all aspects of garments on the figure and in flat technical drawings using a croquis (template). Render fabrics in color using marker techniques. Develop updated fashion figure proportion. Focus on layout of line presentation boards.

FD 215AB 2.0 units  
Fashion Sketching I  
1 hour lecture, 3 hours laboratory  
Grading: letter grade or credit/no credit  
A beginning class for both design and merchandising students stressing the basic proportions of the female and male fashion figure. Proportion, body movement, action poses, head, hand and leg studies, drawing styles and media for expressing the fashion figure will be covered.

FD 216AB 2.0 units  
Fashion Sketch Board/Portfolio Presentation  
1 hour lecture, 3 hours laboratory  
Recommended Preparation: One semester of FD 214AB or FD 215AB  
Grading: letter grade or credit/no credit  
An advanced course emphasizing drawing the fashion figure in detailed proportion using different media. Also covers fabric rendering, advertising illustration and preparing the student for portfolio presentation.

FD 230AD 0.5 units  
Fashion Design Laboratory  
1.5 hours laboratory  
Corequisite: Concurrent enrollment in a fashion design course.  
Grading: letter grade or credit/no credit  
Provides the student enrolled in a fashion design course an opportunity for additional hours. Lab time is assigned on a space available basis. Students completing 27 hours of lab work during the semester will receive .5 unit of credit.

FD 231AB 0.5 units  
Fabric Crafts  
0.5 hours lecture, 1 hour laboratory  
Grading: letter grade or credit/no credit  
Techniques for fabric crafts with the possibility of employment opportunities.

FD 232AB 0.5 units  
Specialized Sewing Tech: Christmas Craft  
0.5 hours lecture, 1 hour laboratory  
Grading: letter grade or credit/no credit  
Techniques for fabric crafts with the possibility of employment opportunities.

FD 233AB 0.5 units  
Specialized Sewing Tech: Lingerie Const  
0.5 hours lecture, 1 hour laboratory  
Grading: letter grade or credit/no credit  
Sewing and fitting of garments using appropriate techniques for specific fabrics and functions. Provides the necessary skills for employment in the apparel trades.

FD 234AB 0.5 units  
Specialized Sewing Tech: Winter Sports  
0.5 hours lecture, 1 hour laboratory  
Grading: letter grade or credit/no credit  
Sewing and fitting of garments using appropriate techniques for specific fabrics and functions. Provides the necessary skills for employment in the apparel trades.

FD 235AB 0.5 units  
Specialized Sewing Tech: Quick Sew  
0.5 hours lecture, 1 hour laboratory  
Grading: letter grade or credit/no credit  
Sewing and fitting of garments using appropriate techniques for specific fabrics and functions. Provides the necessary skills for employment in the apparel trades.

FD 236AB 0.5 units  
Specialized Sewing Tech: Couture Finish  
0.5 hours lecture, 1 hour laboratory  
Grading: letter grade or credit/no credit  
Sewing and fitting of garments using appropriate techniques for specific fabrics and functions. Provides the necessary skills for employment in the apparel trades.

FD 242AD 2.0 units  
Introduction to Fashion Modeling  
1 hour lecture, 3 hours laboratory  
Grading: letter grade or credit/no credit  
An intro to modeling as a career option in the fashion industry and includes types of modeling, body analysis, make-up application, wardrobe analysis, physical fitness, photography, fashion show techniques, speech development, hairstyling, poise and posture. Development of the model portfolio and agency selection are included.

FD 245AD 1.5 units  
Computer Applications in Fashion  
1 hour lecture, 2 hours laboratory  
Grading: letter grade or credit/no credit  

FD 246AB 1.0 unit  
Computer Pattern Design/Manipulation  
0.5 hours lecture, 1.5 hours laboratory  
Recommended Preparation: One semester of FD 245AB  
Grading: letter grade or credit/no credit  
An intermediate to advanced class in computer pattern design. Allows students to develop a more intensive knowledge and ability to produce accurate patterns and perform manipulations. Typically offered for six weeks.

FD 258AD 1.0 unit  
Swimwear  
0.5 hours lecture, 1.5 hours laboratory  
Grading: letter grade or credit/no credit  
Instruction in the sewing techniques for the construction of swim suits. Special emphasis on patterns, stretch fabrics and bra construction.
<table>
<thead>
<tr>
<th>COURSES OF INSTRUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FILM</strong></td>
</tr>
<tr>
<td><strong>FILM 1</strong> 3.0 units</td>
</tr>
<tr>
<td>Introduction to Film</td>
</tr>
<tr>
<td>3 hours lecture.</td>
</tr>
<tr>
<td>Grading: letter grade or credit/no credit</td>
</tr>
<tr>
<td>Survey and critical analysis of film as an art form through an analysis and appreciation of its aesthetics, history, literature, creative techniques and expression of its societies’ cultures, together with its influence on twentieth century values. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>FILM 10A</strong> 3.0 units</td>
</tr>
<tr>
<td>Explorations in Film 1</td>
</tr>
<tr>
<td>3 hours lecture.</td>
</tr>
<tr>
<td>Grading: letter grade or credit/no credit</td>
</tr>
<tr>
<td>Survey and critical analysis of the western genre and/or film noir and/or neo-noir films within the American film industry. Lecture, film viewing, possible guest lecturers and possible field trips will be included. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>FILM 10B</strong> 3.0 units</td>
</tr>
<tr>
<td>Explorations in Film 2</td>
</tr>
<tr>
<td>3 hours lecture.</td>
</tr>
<tr>
<td>Grading: letter grade or credit/no credit</td>
</tr>
<tr>
<td>Survey and critical analysis of the comedy and/or the melodrama and/or the musical films genre within the American film industry. Lecture, film viewing, possible guest lecturers and possible field trips will be included. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>FILM 10C</strong> 3.0 units</td>
</tr>
<tr>
<td>Explorations in Film 3</td>
</tr>
<tr>
<td>3 hours lecture.</td>
</tr>
<tr>
<td>Grading: letter grade or credit/no credit</td>
</tr>
<tr>
<td>Survey and critical analysis of the adventure and/or action and/or war films genre within the American film industry. Lecture, film viewing, possible guest lecturers and possible field trips will be included. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>FILM 10D</strong> 3.0 units</td>
</tr>
<tr>
<td>Explorations in Film 4</td>
</tr>
<tr>
<td>3 hours lecture.</td>
</tr>
<tr>
<td>Grading: letter grade or credit/no credit</td>
</tr>
<tr>
<td>Survey and critical analysis of the horror and/or science fiction film genre within the American film industry. Lecture, film viewing, possible guest lecturers and possible field trips will be included. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>FILM 11A</strong> 3.0 units</td>
</tr>
<tr>
<td>Film Art and Artists 1</td>
</tr>
<tr>
<td>3 hours lecture.</td>
</tr>
<tr>
<td>Grading: letter grade or credit/no credit</td>
</tr>
<tr>
<td>Survey and critical analysis of the work of various film directors within the International Film Industry focusing on film content: plot, theme, characterization and tone. Lecture, film viewing, possible guest lecturers and possible field trips will be included. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>FILM 11B</strong> 3.0 units</td>
</tr>
<tr>
<td>Film Art and Artists 2</td>
</tr>
<tr>
<td>3 hours lecture.</td>
</tr>
<tr>
<td>Grading: letter grade or credit/no credit</td>
</tr>
<tr>
<td>Survey and critical analysis of the adventure and/or film noir and/or neo-noir films within the American film industry. Lecture, film viewing, possible guest lecturers and possible field trips will be included. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>FILM 11C</strong> 3.0 units</td>
</tr>
<tr>
<td>Film Art and Artists 3</td>
</tr>
<tr>
<td>3 hours lecture.</td>
</tr>
<tr>
<td>Grading: letter grade or credit/no credit</td>
</tr>
<tr>
<td>Survey and critical analysis of cinematic genres. Focus is on adaptations, genres, social problem films and censorship. Lecture, film viewing, possible guest lecturers and possible field trips will be included. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>FILM 11D</strong> 3.0 units</td>
</tr>
<tr>
<td>Film Art and Artists 4</td>
</tr>
<tr>
<td>3 hours lecture.</td>
</tr>
<tr>
<td>Grading: letter grade or credit/no credit</td>
</tr>
<tr>
<td>Survey and critical analysis of content and form of films expressing cultures other than the United States. Lecture, film viewing, possible guest lecturers and possible field trips will be included. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>FILM 20AB</strong> 3.0 units</td>
</tr>
<tr>
<td>Fundamentals of Film Production</td>
</tr>
<tr>
<td>2 hours lecture, 4 hours laboratory</td>
</tr>
<tr>
<td>Prerequisite: FILM 1 (may be taken concurrently)</td>
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<tr>
<td>Grading: letter grade or credit/no credit</td>
</tr>
<tr>
<td>Basic principles of film production, including operation of equipment and details involved in making a film from idea development to final production. Lecture, lab workshop and individual projects are covered. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>FILM 21AB</strong> 3.0 units</td>
</tr>
<tr>
<td>Intermediate Film Production</td>
</tr>
<tr>
<td>2 hours lecture, 4 hours laboratory</td>
</tr>
<tr>
<td>Prerequisite: One semester of FILM 20AB</td>
</tr>
<tr>
<td>Grading: letter grade or credit/no credit</td>
</tr>
<tr>
<td>Provides intermediate film production experiences for the transfer film major. Includes editing, directing, scripting and producing, with special emphasis on pre- and post-production considerations. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td><strong>FILM 35AD</strong> 4.0 units</td>
</tr>
<tr>
<td>Film Production Workshop</td>
</tr>
<tr>
<td>3 hours lecture, 4.5 hours laboratory</td>
</tr>
<tr>
<td>Prerequisite: One semester of FILM 20AB</td>
</tr>
<tr>
<td>Grading: letter grade or credit/no credit</td>
</tr>
<tr>
<td>An intensive course in the complete experience of filmmaking. In a concentrated six-week format, students will create their own films putting to practical application the fundamental techniques in all phases of Super 8 and video production, including the creation of a story idea and script, camera operation, the use of sound, the editorial process, techniques of picture and sound production. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
</tbody>
</table>
Courses of Instruction

FILM 60AD 1.0 unit
Special Projects in Film
3 hours laboratory
Prerequisite: One semester of FILM 20AB
Grading: letter grade or credit/no credit
Permits lower division students with generalized background in cinema to explore in depth a specific aspect of cinema in theory and execution. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

FIRE SCIENCE

FIRE 1 3.0 units
Fire Protection Organization
3 hours lecture.
Grading: letter grade.
Included are: an intro to fire protection, career opportunities in fire protection and related fields, philosophy and history of fire protection, fire loss analysis, organization and functions of public and private fire protection services, fire departments as part of local government, laws and regulations affecting the fire service, fire service nomenclature, specific fire protection functions, basic fire chemistry and physics, an intro to fire protection systems and an intro to fire strategy and tactics. Transfer Status: Transferable to CSU, see counselor for limitations.

FIRE 2 3.0 units
Fire Prevention Technology
3 hours lecture.
Grading: letter grade.
Learn about 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 with fire safety education and detection and suppression systems. Transfer Status: Transferable to CSU, see counselor for limitations.

FIRE 3 3.0 units
Fire Protection Equipment and Systems
3 hours lecture.
Grading: letter grade.
Provides info relating to the features 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. Transfer Status: Transferable to CSU, see counselor for limitations.

FIRE 4 3.0 units
Building Construction
3 hours lecture.
Grading: letter grade.
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, preplanning fire operations and operating at fires. The development and evolution of building and fire codes will be studied in relation to past fires in residential, commercial and industrial occupancies. Transfer Status: Transferable to CSU, see counselor for limitations.

FIRE 5 3.0 units
Fire Behavior and Combustion
3 hours lecture.
Grading: letter grade.
The 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 are discussed. Transfer Status: Transferable to CSU, see counselor for limitations.

FIRE 6A 2.0 units
Fire Command 1A
2.2 hours lecture.
Grading: letter grade.
A seminar for certified fire officer candidates. The first in a series of State Board Fire Services accredited courses in fire command. Provides fire company officers with information and experience in command and control techniques. Emphasizes decision making, command authority, preplanning and training requirements for effective performance as an officer. One of eight courses required for certification as a fire officer. Transfer Status: Transferable to CSU, see counselor for limitations.

FIRE 6B 2.0 units
Fire Command 1B
2.2 hours lecture.
Grading: letter grade.
The second in a series of State Board of Fire Services accredited courses in fire command. Provides fire company officers with information and experience in command and control techniques used at the scene of a hazardous material emergency. Emphasizes decision making, command authority and the preplanning and training requirements for effective performance as an officer. One of eight courses required for certification as a fire officer. Must attend each day and pass a test for course credit. Transfer Status: Transferable to CSU, see counselor for limitations.

FIRE 7A 2.0 units
Fire Prevention Officer 1A
2.2 hours lecture.
Grading: letter grade.
A seminar for certified fire fighters. Provides information on fire prevention organization, laws, regulations and standards, inspection procedures and fire hazards. Meets the Fire Officer 1 requirements established by the State Board of Fire Services. Transfer Status: Transferable to CSU, see counselor for limitations.

FIRE 7B 2.0 units
Fire Prevention Officer 1B
2.2 hours lecture.
Grading: letter grade.
Covers the Uniform Fire Code, fire prevention aspects associated with hazardous chemicals, compressed gases and combustible solids, explosives and blasting agents, flammable and combustible liquids, utility of fire protection systems and appliances. Meets the Fire Officer 1 requirements established by the State Board of Fire Services. Transfer Status: Transferable to CSU, see counselor for limitations.

FIRE 7C 2.0 units
Fire Prevention Officer 1C
2.2 hours lecture.
Grading: letter grade.
Courses of Instruction

An exam of the physical properties of flammable liquids and gases; the outside storage and handling of bulk flammables and gases; regulations and procedures for the installation of storage tanks and containers. Regulations relative to the transportation of flammable liquids and gases; and procedures for controlling compressed and liquefied gas leaks. (Applies to Fire Prevention Officer 1 Certification.) Transfer Status: Transferable to CSU, see counselor for limitations.

FIRE 10A 2.0 units
Fire Instructor 1A
2.2 hours lecture.
Grading: letter grade.
A seminar for certified fire fighters. Provides information on fire origin and cause, evidence preservation, prosecution of arson cases, maintaining records and cooperating with special arson and investigation problems. Meets Fire Officer 1 requirements established by the State Board of Fire Services. Transfer Status: Transferable to CSU, see counselor for limitations.

FIRE 16A 2.0 units
Fire Investigator 1A
2.2 hours lecture.
Grading: letter grade.
A seminar for certified fire fighters. Provides a summary of state laws, legal principles, terms, codes and methods relative to fire investigations. Provides information necessary to conduct an investigation and present a case in court. Meets Fire Officer 1 requirements established by the State Board of Fire Services. Transfer Status: Transferable to CSU, see counselor for limitations.

FIRE 26A 2.0 units
Fire Command 2A
2.2 hours lecture.
Grading: letter grade.
Prepares the officer to use management techniques and the Incident Command System when commanding multiple alarms or large suppression forces. Transfer Status: Transferable to CSU, see counselor for limitations.

FIRE 26B 2.0 units
Fire Command 2B
2.2 hours lecture.
Grading: letter grade.
Prepares officers to manage a serious hazardous materials incident. Includes areas of discussion on information and data bases; organizations, agencies and institutions involved in hazardous materials response and research; planning for a community’s hazardous materials problems; legislation, litigation and liabilities of hazardous materials responses. Transfer Status: Transferable to CSU, see counselor for limitations.

FIRE 26C 2.0 units
Fire Command 2C
2.2 hours lecture.
Grading: letter grade.
Approached from a system basis and applied to both small and large high-rise buildings. Includes prefire planning, building inventory, problem identification, ventilation methods, water supply, life safety, strategy and tactics, application of the ICS and specific responsibilities. Case studies and simulations are used. Applicable to both large and small departments. Transfer Status: Transferable to CSU, see counselor for limitations.

FIRE 26D 2.0 units
Fire Command 2D
2.2 hours lecture.
Grading: letter grade.
Key topics include: principles of disaster planning and management, fire service emergency plans, emergency operations centers, case studies of various natural and man-made disasters, roles of local, state and federal OES and emergency management agencies, discussion of multihazard and ICS planning techniques and principles of exercising emergency management staffs. Transfer Status: Transferable to CSU, see counselor for limitations.

FIRE 26E 2.0 units
Fire Command 2E
2.2 hours lecture.
Grading: letter grade.
Includes: California wild land fire problems, wild land fire safety, weather effects, wild land fuels, wild land fire behavior, initial attack methods using support equipment, using topographic maps, strategy and tactics and air attack operations. Involves participation and simulation. Transfer Status: Transferable to CSU, see counselor for limitations.

FIRE 40 2.0 units
Fire Management 1
2.2 hours lecture.
Grading: letter grade.
Covers the role of the fire manager, proper application of management skills, organizational behavior and management concepts. Meets Fire Officer 1 requirements established by the State Board of Fire Service. Transfer Status: Transferable to CSU, see counselor for limitations.

FIRE 42A 2.0 units
Fire Management 2A
2.2 hours lecture.
Grading: letter grade.
Provides information on how to make the transition from supervisor to manager. It offers sound management principles in preparation for more intensified training in specific discipline. Topics of discussion include internal and external influences, personality traits of fire fighters, managing human relations, group dynamics, conflict
Courses of Instruction

solution and more. **Transfer Status: Transferable to CSU, see counselor for limitations.**

**FIRE 42B** 2.0 units  
**Fire Management 2B**  
2.2 hours lecture.  
Grading: letter grade.  
Designed to provide insight into the cyclical nature of budgeting and financial management. Become familiar with essential elements of financial planning, budget preparation, budget justification and budget controls. **Transfer Status: Transferable to CSU, see counselor for limitations.**

**FIRE 42D** 2.0 units  
**Fire Management 2D**  
2.2 hours lecture.  
Grading: letter grade.  
Provides information and discussion centering around program planning, master planning, forecasting, system analysis, system design, policy analysis and others. **Transfer Status: Transferable to CSU, see counselor for limitations.**

**FIRE 42E** 2.0 units  
**Fire Management 2E**  
2.2 hours lecture.  
Grading: letter grade.  
Provides an overview of contemporary management issues and concepts. Key topics include: governmental relations, changing settings/policy formation, program management, personnel, labor relations and legal environment. **Transfer Status: Transferable to CSU, see counselor for limitations.**

**FIRE 53** 3.0 units  
**Fire Hydraulics**  
3 hours lecture.  
Grading: letter grade.  
A review of applied math, hydraulics laws as applied to the fire service, application of formulas and mental calculation to hydraulics and water supply problems. **Transfer Status: Transferable to CSU, see counselor for limitations.**

**FIRE 54** 3.0 units  
**Hazardous Materials 1**  
3 hours lecture.  
Grading: letter grade.  
An intro to basic fire chemistry and physics, problems of flammability encountered by firefighters when dealing with fuels and oxidizers and elementary fire-fighting practices pertaining to hazardous materials in storage and transit. **Transfer Status: Transferable to CSU, see counselor for limitations.**

**FIRE 57** 3.0 units  
**Introduction to Fire Tactics & Strategy**  
3 hours lecture.  
Grading: letter grade.  
Outlines the principles of fire control through the utilization of manpower, equipment and extinguishing agents on the fire grounds. **Transfer Status: Transferable to CSU, see counselor for limitations.**

**FIRE 58** 3.0 units  
**Intro to Fire Company Administration**  
3 hours lecture.  
Grading: letter grade.  
A review of fire department organization. Learn planning, organizing and supervising to meet the needs of the fire department, with an emphasis on the company officer’s role. **Transfer Status: Transferable to CSU, see counselor for limitations.**

**FIRE 60** 3.0 units  
**Fire Investigation 1**  
3 hours lecture.  
Grading: letter grade.  
Learn to determine causes of fires (accidental, suspicious and incendiary), types of fires, related laws, intro to arson and incendiaries, recognize and preserve evidence, interview witnesses and suspects, arrest and detention procedures, court procedures and to give court testimony. **Transfer Status: Transferable to CSU, see counselor for limitations.**

**FIRE 61** 3.0 units  
**Rescue Practices**  
3 hours lecture.  
Grading: letter grade.  
Learn about rescue problems and techniques, use of emergency rescue equipment, toxic gases, chemicals and disease, radiation hazards, care of victims, emergency childbirth, respiration and resuscitation, extraction and other emergency conditions. **Transfer Status: Transferable to CSU, see counselor for limitations.**

**FIRE 62** 3.0 units  
**Fire Apparatus and Equipment**  
3 hours lecture.  
Grading: letter grade.  
A study of mobile and fixed fire apparatus design, a review of construction specifications and performance capabilities and the effective deployment, utilization and performance of equipment under emergency conditions. **Transfer Status: Transferable to CSU, see counselor for limitations.**

**FIRE 64** 3.0 units  
**Hazardous Materials 2**  
3 hours lecture.  
Grading: letter grade.  
A second semester course in hazardous materials covering the identification, handling and fire-fighting practices with explosives, toxic substances and radioactive materials in storage or transit. **Transfer Status: Transferable to CSU, see counselor for limitations.**

**FIRE 65** 3.0 units  
**Fundamentals of Fire Safety**  
3 hours lecture.  
Grading: letter grade.  
Provides paid or volunteer firefighters with information on current techniques in the prevention of injuries and the promotion of safety while conducting routine and emergency fire operations. **Transfer Status: Transferable to CSU, see counselor for limitations.**

**FIRE 66** 3.0 units  
**Intro to Related Codes & Ordinances**  
3 hours lecture.  
Grading: letter grade.  
Familiarization and interpretation of national, state and local codes and ordinances which influence the field of fire prevention. **Transfer Status: Transferable to CSU, see counselor for limitations.**
Courses of Instruction

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>FIRE 240AD</td>
<td>0.5</td>
</tr>
<tr>
<td>Firefighter I Physical Agility</td>
<td>0.2 hours lecture, 0.9 hours laboratory</td>
</tr>
<tr>
<td>Grading: letter grade or credit/no credit</td>
<td></td>
</tr>
<tr>
<td>Designed to assess physical agility requirements for the fire service. A review of nutritional facts and physical training principles. Meets statewide standards of the CalChiefs organization.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>FIRE 242C</td>
<td>2.0</td>
</tr>
<tr>
<td>Fire Management 2C</td>
<td>2.2 hours lecture.</td>
</tr>
<tr>
<td>Grading: letter grade.</td>
<td></td>
</tr>
<tr>
<td>Designed to provide insight into personnel and labor relations. Meets state fire marshal certification requirements. Designed as service training for fire professionals.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>FIRE 250</td>
<td>9.0</td>
</tr>
<tr>
<td>Basic Fire Service Training</td>
<td>15.5 hours lecture, 7.7 hours laboratory</td>
</tr>
<tr>
<td>Grading: credit/no credit</td>
<td></td>
</tr>
<tr>
<td>Orientation in fire service organization, practices, procedures, tactics and duties, basic training in the use of fire suppression equipment, first aid and fire prevention procedures. Typically offered for seven weeks.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>FIRE 270AD</td>
<td>1.0</td>
</tr>
<tr>
<td>Work Experience Issues — Fire Science</td>
<td>1 hour lecture.</td>
</tr>
<tr>
<td>Corequisite: Enrollment in at least seven units including FIRE 271AD, 272AD or 273AD and 270AD.</td>
<td></td>
</tr>
<tr>
<td>Grading: letter grade or credit/no credit</td>
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</tr>
<tr>
<td>A seminar related to work experience, discussing job-related learning objectives, career goals, employment search, communication skills and problem solving.</td>
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<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>FIRE 271AD</td>
<td>1.0</td>
</tr>
<tr>
<td>Work Experience — Fire Science</td>
<td>4.1 hours laboratory</td>
</tr>
<tr>
<td>Corequisite: Enrollment in at least seven units including FIRE 270AD and 271AD.</td>
<td></td>
</tr>
<tr>
<td>Grading: letter grade or credit/no credit</td>
<td></td>
</tr>
<tr>
<td>An extension of vocational learning through employment related to the fire service career of interest. One unit of credit shall be granted for every 75 hours per semester the student is employed.</td>
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<tbody>
<tr>
<td>FIRE 272AD</td>
<td>2.0</td>
</tr>
<tr>
<td>Work Experience — Fire Science</td>
<td>8.3 hours laboratory</td>
</tr>
<tr>
<td>Corequisite: Enrollment in at least seven units including FIRE 270AD and 272AD.</td>
<td></td>
</tr>
<tr>
<td>Grading: letter grade or credit/no credit</td>
<td></td>
</tr>
<tr>
<td>An extension of vocational learning through employment related to the fire service career of interest. One unit of credit shall be granted for every 75 hours per semester the student is employed.</td>
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<tbody>
<tr>
<td>FIRE 273AD</td>
<td>3.0</td>
</tr>
<tr>
<td>Work Experience — Fire Science</td>
<td>12.5 hours laboratory</td>
</tr>
<tr>
<td>Corequisite: Enrollment in at least seven units including FIRE 270AD and 273AD.</td>
<td></td>
</tr>
<tr>
<td>Grading: letter grade or credit/no credit</td>
<td></td>
</tr>
<tr>
<td>An extension of vocational learning through employment related to the fire service career of interest. One unit of credit shall be granted for every 75 hours per semester the student is employed.</td>
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<tbody>
<tr>
<td>FIRE 400A</td>
<td>1.0</td>
</tr>
<tr>
<td>Special Topics in Fire Science</td>
<td>1 hour lecture, 1 hour laboratory</td>
</tr>
<tr>
<td>Grading: credit/no credit</td>
<td></td>
</tr>
<tr>
<td>A series of seminars designed to provide maintenance of basic skills learned or to update knowledge of new technology in the fire service expected of all fire service personnel. Topics will be offered to meet the interests and needs of fire protection specialists. Modules are designed to meet the criteria specified in NFPA standards. Repeated enrollment authorized.</td>
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<tr>
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<tbody>
<tr>
<td>FIRE 400B</td>
<td>2.0</td>
</tr>
<tr>
<td>Special Topics in Fire Science</td>
<td>2 hours lecture, 2 hours laboratory</td>
</tr>
<tr>
<td>Grading: credit/no credit</td>
<td></td>
</tr>
<tr>
<td>A series of seminars designed to provide maintenance of skills learned or to update knowledge of new technology in the fire service expected of selected fire service personnel, based on rank and station assignment. Topics will be offered to meet the interests and needs of fire personnel. Modules are designed to meet criteria specified in NFPA standards. Repeated enrollment authorized.</td>
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<th>Course Code</th>
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<tbody>
<tr>
<td>FIRE 400C</td>
<td>3.0</td>
</tr>
<tr>
<td>Special Topics in Fire Science</td>
<td>3 hours lecture, 3 hours laboratory</td>
</tr>
<tr>
<td>Grading: credit/no credit</td>
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</tr>
<tr>
<td>A series of seminars designed to provide maintenance of skills learned or to update knowledge of new technology in the fire service expected of selected fire service personnel based on rank and station assignment. Topics will be offered to meet the interests and needs of fire personnel. Representative topics include: specialty areas of fire service, analyzing and evaluating fire operations and addressing personnel management issues. Modules are designed to meet criteria specified in NFPA standards. Repeated enrollment authorized.</td>
<td></td>
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE 400D</td>
<td>3.0</td>
</tr>
<tr>
<td>Special Topics in Fire Service</td>
<td>2 hours lecture, 3 hours laboratory</td>
</tr>
<tr>
<td>Grading: credit/no credit</td>
<td></td>
</tr>
<tr>
<td>A series of seminars designed to provide maintenance of skills learned or to update knowledge of new technology in the fire service expected of selected fire service personnel based on rank and station assignment. Topics will be offered to meet the interests and needs of fire, safety and marine personnel. Representative topics include: specialty areas of fire service, analyzing and evaluating fire, safety or marine operations and addressing personnel management issues. Modules are designed to meet criteria specified in the National Fire Protection Association (NFPA) and the Marine Safety Association.</td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
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<tbody>
<tr>
<td>FIRE 400E</td>
<td>3.5</td>
</tr>
<tr>
<td>Special Topics in Fire Service</td>
<td>2 hours lecture, 4.8 hours laboratory</td>
</tr>
<tr>
<td>Grading: credit/no credit</td>
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<tr>
<td>A series of seminars designed to provide maintenance of skills learned or to update knowledge of new technology in the fire service expected of selected fire service personnel based on rank and station assignment. Topics will be offered to meet the interests and needs of fire, safety and marine personnel. Representative topics include: specialty areas of fire service, analyzing and evaluating fire, safety or marine operations and addressing personnel management issues. Modules are designed to meet criteria specified in NFPA standards. Repeated enrollment authorized.</td>
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</tbody>
</table>
Courses of Instruction

**FOOD & BEVERAGE MANAGEMENT**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Title</th>
<th>Hours</th>
<th>Grading</th>
<th>Corequisites</th>
<th>Transfer Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>THRFB 17</td>
<td>3.0</td>
<td>Introduction to Food and Beverage</td>
<td>3 lecture</td>
<td>letter grade</td>
<td></td>
<td>UC/CSU, counselor for limitations</td>
</tr>
<tr>
<td>THRFB 18</td>
<td>3.0</td>
<td>Introduction to Culinary Preparation</td>
<td>3 lecture</td>
<td>letter grade</td>
<td></td>
<td>UC/CSU, counselor for limitations</td>
</tr>
<tr>
<td>THRFB 19</td>
<td>3.0</td>
<td>Food/Beverage Purchasing/Plan/Control</td>
<td>3 lecture</td>
<td>letter grade</td>
<td></td>
<td>UC/CSU, counselor for limitations</td>
</tr>
<tr>
<td>THRFB 27</td>
<td>3.0</td>
<td>Bar and Beverage Management</td>
<td>3 lecture</td>
<td>letter grade</td>
<td>THRH 273AD and 270AD</td>
<td>UC/CSU, counselor for limitations</td>
</tr>
</tbody>
</table>

**FOOD & NUTRITION**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Title</th>
<th>Hours</th>
<th>Grading</th>
<th>Corequisites</th>
<th>Transfer Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>F&amp;N 20</td>
<td>3.0</td>
<td>Nutrition and Life</td>
<td>3 lecture</td>
<td>letter grade or credit/no credit</td>
<td></td>
<td>UC/CSU, counselor for limitations</td>
</tr>
<tr>
<td>F&amp;N 21</td>
<td>4.0</td>
<td>Food Selection and Meal Preparation</td>
<td>3 lecture and 3 laboratory</td>
<td>letter grade or credit/no credit</td>
<td></td>
<td>UC/CSU, counselor for limitations</td>
</tr>
<tr>
<td>F&amp;N 26</td>
<td>1.0</td>
<td>Nutrition for the Active Person</td>
<td>1 lecture</td>
<td>letter grade or credit/no credit</td>
<td></td>
<td>UC/CSU, counselor for limitations</td>
</tr>
<tr>
<td>F&amp;N 224</td>
<td>3.0</td>
<td>Sanitation, Safety and Equipment</td>
<td>3 lecture</td>
<td>letter grade or credit/no credit</td>
<td></td>
<td>UC/CSU, counselor for limitations</td>
</tr>
</tbody>
</table>
Courses of Instruction

F&N 225 3.0 units
Intro to Food Service/Work Organizations
3 hours lecture.
Grading: letter grade or credit/no credit
The scope and organization of a food service system operating within a health care, community care or school feeding program is presented. The education and experience necessary for employment are also discussed. Additional emphasis will be placed on motion economy, task analysis and method improvement.

F&N 227 3.0 units
Supervision and Training Techniques
3 hours lecture.
Grading: letter grade or credit/no credit
Trains students for supervisory positions in food service operations related to health care facilities. Emphasis will include staff selection, training, presentation techniques, communication and staff development.

F&N 228 3.0 units
Food Production Management
3 hours lecture.
Grading: letter grade or credit/no credit
Become familiar with management techniques related to food service operations. Production scheduling, equipment utilization, staffing and service systems are also covered.

F&N 230AC 2.0 units
Clinical Field Experience I
1 hour lecture, 5 hours laboratory
Grading: letter grade or credit/no credit
Provides supervised clinical field experience in health care facilities for dietetic service supervisor and dietetic technician program students. Learn and practice the skills necessary to coordinate a health care food service facility.

F&N 231 3.0 units
Menu Planning and Food Purchasing
3 hours lecture.
Grading: letter grade or credit/no credit
Covers the planning and design of health care institutional menus. Topics include: nutritional adequacy, psychological needs, types of operation, equipment and skill of personnel. Purchasing and costing of food, analysis of food quality, writing specifications, ordering, receiving and storing of food and supplies are also covered.

F&N 232 3.0 units
Modified Diets & Diet Therapy
3 hours lecture.
Recommended Preparation: F&N 20 (may be taken concurrently)
Grading: letter grade or credit/no credit
Principles of and indication for diet therapy in the treatment of diseases and/or disorders. Geared for hospital, convalescent and extended care facility dietetic professionals.

F&N 233A 1.0 unit
Special Topics — Medical Charting
1 hour lecture.
Grading: letter grade or credit/no credit
Covers techniques of nutritional medical charting for dietary professionals in health care facilities. Problem-oriented records and the S.O.A.P. methods are discussed.

F&N 233B 1.0 unit
Special Topics — Diabetes Mellitus Trng
1 hour lecture.
Grading: letter grade or credit/no credit
Covers diabetes training for dietary professionals in health care facilities or lay persons. The latest in diabetes management, diet adjustments, new resources and products are presented.

F&N 233C 1.0 unit
Special Topics — Modified Diets
1 hour lecture.
Grading: letter grade or credit/no credit
Modified diet update. Emphasizes diet therapy for sodium, cholesterol, calories, protein, fat, soft, liquids and bland diet modifications.

F&N 233D 1.0 unit
Special Topics — Work Organizations
1 hour lecture.
Grading: letter grade or credit/no credit
Covers work organization and efficiency techniques for health care and school food service personnel.

F&N 234 3.0 units
Advanced Nutrition Care
3 hours lecture.
Prerequisite: F&N 232
Grading: letter grade or credit/no credit
A study of nutrition education principles and techniques for the individual, family and small groups in normal, modified and preventive nutrition care throughout the lifecycle. Computer applications and cultural implications are also covered.

F&N 235 3.0 units
Advanced Modified Diets
3 hours lecture
Recommended Preparation: F&N 232
Grading: letter grade or credit/no credit
Advanced study of therapeutic nutritional care with applications in diet counseling, menu modification, communication, documentation, education and appropriate food service delivery.

F&N 236 1.0 unit
Dietetic Seminar
1 hour lecture.
Grading: letter grade or credit/no credit
An intro to the development of professionalism and a team concept in the dietetic health care system. Examines financing, planning and regulating health care services related to dietetics, as well as the standards of professional responsibility and standards of practice for the profession of dietetics.

F&N 240AC 2.0 units
Clinical Field Experience II
10 hours laboratory
Recommended Preparation: Two semesters of F&N 230AC
Grading: letter grade or credit/no credit
Provides supervised clinical experience in health care facilities for Dietetic Technician Program students. Learn and practice skills necessary to provide nutritional care services to clients in health care settings.

F&N 250 2.0 units
Nutrition for Culinary Arts
2 hours lecture.
Grading: letter grade or credit/no credit
A practical approach to the application of sound nutritional practices in the food service setting. Culinary arts students and professionals will be able to incorporate healthful nutritional knowledge in their personal and professional lives. Includes nutrition as it relates to health throughout the life cycle, menu/recipe design and modification, food product selection and current trends in consumer preference.

F&N 251 3.0 units
Applied Nutrition for Culinary Arts
2 hours lecture, 3 hours laboratory
Grading: letter grade.
Technical applications of designing and producing healthy recipes and menus for the culinary industry with hands-on lab experiences. Meets requirements for American Culinary Federation accreditation.

F&N 252AD 1.5 units
Cake Decorating and Sugar Cookery
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Teaches the principles of sugar cookery and appropriate use of confections in making molds and cake decorating. Various forms of cake decoration will be demonstrated and practiced by the students, using a variety of icings.

F&N 253 1.0 unit
Food Handler Certification
1 hour lecture.
Grading: letter grade or credit/no credit
Covers the required standards of sanitation and safety in the handling, preparation and serving of food to protect the public’s health. Will receive a Food Handler Certificate after passing the food handler exam given at the conclusion of the course. Certificate required for those working in a food service establishment to meet the California State Health Code.

F&N 255A 1.0 unit
Nutrition Facts and Fallacies
1 hour lecture.
Grading: letter grade or credit/no credit
Provides the most recent information in the specific areas of nutrition. Emphasizes nutritional facts and fallacies, life cycle nutrition (pregnancy, childhood, adolescence, adulthood) and the vegetarian lifestyle.

F&N 255B 1.0 unit
Nutrition/Pregnancy, Infants, Children
1 hour lecture.
Grading: letter grade or credit/no credit
Provides the most recent information in the specific areas of nutrition. Emphasizes nutritional facts and fallacies, life cycle nutrition, (pregnancy, childhood, adolescence, adulthood) and the vegetarian lifestyle.

F&N 255C 1.0 unit
Nutrition for Adults and Aging
1 hour lecture.
Grading: letter grade or credit/no credit
Provides the most recent information in the specific areas of nutrition. Emphasizes nutritional facts and fallacies, life cycle nutrition (pregnancy, childhood, adolescence, adulthood) and the vegetarian lifestyle.

F&N 255D 1.0 unit
Vegetarian Lifestyle
1 hour lecture.
Grading: letter grade or credit/no credit
Provides the knowledge to plan and practice a vegetarian lifestyle and maintain optimum nutrition. Topics will include the benefits and cautions of the vegetarian diet, variations of the diet and how to combine non-meat proteins. Typically offered for nine weeks.

F&N 256 2.0 units
Weight Control & Energy Balance
2 hours lecture.
Grading: letter grade or credit/no credit
Designed to present techniques of weight control. Emphasizes the assessment of ideal body weight, techniques of diet behavior modification and reasons for emotional eating, principles of energy balance and long-term weight maintenance.

F&N 260AD 1.5 units
Cultural Foods
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Explores the origins of foods, customs, nutrition and preparation of foods common to a variety of cultures. Food patterns and relationship to social customs and rituals are covered in addition to the nutrition assessment and the effects of changes of food habits.

F&N 261AD 1.5 units
Modern Meals
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Provides the knowledge and skills required to plan, prepare and serve nutritious, varied, palatable, attractive meals within the limitations of time, energy, equipment and budget.

F&N 262AD 1.5 units
Meal Preparation for 1 and 2 Persons
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Meal planning and food selection for the single person or couple. Emphasis is on economy, speed and attractiveness.

FOREIGN STUDIES

FRSTU 11A 3.0 units
Language & Cultures of Western Europe
3 hours lecture.
Grading: letter grade or credit/no credit
Intro to the study of the major languages and cultures of Western Europe. A survey of the historic sites, the customs and the habits of the present day European man. Study foreign expressions and concepts which are part of the American vocabulary. Designed for students interested in study or travel abroad, international relations, travel services, journalism or foreign service. Transfer Status: Transferable to CSU, see counselor for limitations.

FRSTU 11B 3.0 units
Language & Cultures of Western Europe
3 hours lecture.
Grading: letter grade or credit/no credit
Continuation of the study of the major languages and cultures of Western Europe. A survey of the historic sites, the customs and the habits of the present day European man. Study foreign expressions and concepts...
which are part of the American vocabulary. For students interested in study or travel abroad, international relations, travel services, journalism or foreign service. Transfer Status: Transferable to CSU, see counselor for limitations.

**FORKLIFT**

**FORK 801**  
Forklift Safety and Operation  
0.8 hours lecture, 0.6 hours laboratory  
Prerequisite: Valid California driver’s license or equivalent  
Grading: credit/no credit  
Covers safety and operation of the forklift, including basic lifting principles, load rating, stability and operation techniques.

**FRENCH**

**FREN 1** (CAN FREN 2)  
Elementary French  
5 hours lecture, 1 hour laboratory  
Grading: letter grade or credit/no credit  
Intro to the French language, emphasizing listening, comprehension, conversation, reading and writing skills to develop control of the basic sounds, forms and structure of French. Topics for conversation are everyday life situations and issues in the French world. Not recommended for native speakers of French or students who have completed one year of high school French with a grade of B or better. Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.

**FREN 1A** (part of CAN FREN 2)  
Elementary French 1A  
3 hours lecture.  
Grading: letter grade or credit/no credit  
Intro to the French language, emphasizing listening, comprehension, conversation, reading and writing to develop control of the basic sounds, forms and structure of French. Topics for conversation are everyday life situations and issues in the French world. Not recommended for native speakers of French or students who have completed one year of high school French with a grade of B or better. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**FREN 1B** (part of CAN FREN 2)  
Elementary French 1B  
2 hours lecture, 1 hour laboratory  
Grading: letter grade or credit/no credit  
Intro to the French language, emphasizing listening, comprehension, conversation, reading and writing to develop control of the basic sounds, forms and structure of French. Topics for conversation are everyday life situations and issues in the French world. Not recommended for native speakers of French or students who have completed one year of high school French with a grade of B or better. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**FREN 2** (CAN FREN 4)  
Elementary French  
5 hours lecture, 1 hour laboratory  
Prerequisite: FREN 1 or 1A-B or recent completion of one year of high school French. Grading: letter grade or credit/no credit  
Continuation of the review of French grammar, emphasizing listening and speaking, reading and writing, based on modern topical material. Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.

**FREN 2A** (part of CAN FREN 4)  
Elementary French 2A  
3 hours lecture.  
Prerequisite: FREN 1, 1A-B or recent completion of one year of high school French. Grading: letter grade or credit/no credit  
Continuation of the study of basic grammar forms, emphasizing listening and speaking, as well as reading and writing, based on modern topical material. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**FREN 2B** (part of CAN FREN 4)  
Elementary French 2B  
2 hours lecture, 1 hour laboratory  
Prerequisite: FREN 2A  
Grading: letter grade or credit/no credit  
Continuation of the study of basic grammar forms, emphasizing listening and speaking, as well as reading and writing, based on modern topical material. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**FREN 3** (CAN FREN 8)  
Intermediate French 3  
5 hours lecture.  
Prerequisite: FREN 2, 2A-B or recent completion of two years of high school French. 63.  
Grading: letter grade or credit/no credit  
A review of French grammar. Intensive study of idiomatic expressions and vocabulary based on the reading of short stories and a variety of articles and situational dialogues which reflect the French culture. Development of reading and writing, based on the reading of material and personal experiences, is covered. Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.

**FREN 4** (CAN FREN 10)  
Intermediate French  
5 hours lecture.  
Prerequisite: FREN 3 or recent completion of three years of high school French. Grading: letter grade or credit/no credit  
Continuation of the review of French grammar, emphasizing a more advanced structure. Reading of short stories and literary selections by famous contemporary French authors, as well as extensive practice in comprehension, speaking, writing and reading are covered. Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.

**FREN 8AD**  
Spoken French  
3 hours lecture.  
Prerequisite: FREN 2 or 2A-B  
Grading: letter grade or credit/no credit
An intensive study and practice in French conversation based on practical situations, the French culture and current events. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**FREN 25A 3.0 units**
Advanced French: Culture in Literature
3 hours lecture.
Prerequisite: FREN 4
Grading: letter grade or credit/no credit
The study of the French culture in short stories, fables and biographies. Grammar review stressing oral and written composition. Practice for fluency. Emphasizes a career-related language with a choice of collateral readings relative to business, science or the humanities. Attention is given to developing vocabulary and standard forms appropriate to individual career objectives. Outside reading and reporting in the field of study are required. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**FREN 25B 3.0 units**
Advanced French: History
3 hours lecture.
Prerequisite: FREN 25A
Grading: letter grade or credit/no credit
Study the history of the French speaking countries from early to present time through texts from history books. Grammar review stressing oral and written composition. Practice for fluency. Emphasis is on a career-related language, with a choice of collateral readings relative to business, science or the humanities. Attention is given to developing vocabulary and standard forms appropriate to individual career objectives. Outside reading and reporting in the field of study are required. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**FREN 25C 3.0 units**
Advanced French: Politics, Current Event
3 hours lecture.
Prerequisite: FREN 25B
Grading: letter grade or credit/no credit
Study the political and other current events through newspaper and magazine articles. Grammar review stressing oral and written composition. Practice for fluency. Emphasis is on a career-related language with choice of collateral readings relative to business, science or the humanities. Attention is given to developing vocabulary and standard forms appropriate to individual career objectives. Outside reading and reporting in the field of study are required. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**FREN 25D 3.0 units**
Advanced French: Literature
3 hours lecture.
Prerequisite: FREN 25C
Grading: letter grade or credit/no credit
Study the different literary genres through short novels, fairy tales, poems, etc. Grammar review stressing oral and written composition. Practice for fluency. Emphasizes a career-related language with a choice of collateral readings relative to business, science or the humanities. Attention is given to developing vocabulary and standard forms appropriate to individual career objectives. Outside reading and reporting in the field of study are required. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**GEOG 2 (CAN GEOG 4) 3.0 units**
Elements of Cultural Geography
3 hours lecture.
Grading: letter grade or credit/no credit
Study the basic cultural elements of the earth, the peoples of the world and their settlement characteristics and the origins, historical dispersals and contemporary distribution of representative cultural patterns. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**GEOG 5 3.0 units**
Economic Geography
3 hours lecture.
Grading: letter grade or credit/no credit
Study the location and organization of the world’s major types of production, including agriculture, mining, forest products, fisheries, manufacturing and associated service industries. Not open to students registered in or with credit in ECON 5. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**GEOG 10 3.0 units**
Intro to Geographic Information Systems
2 hours lecture, 3 hours laboratory
Recommended Preparation: Familiar with Internet or computer literacy.
Grading: letter grade.
Introduces the theory and application of geographic information system (GIS) technology. Includes maps and cartography, GIS concepts, GIS software, GIS database concepts. Work with GIS data: input, transformation, storage, analysis and output. Also includes business aspects of GIS and careers in GIS. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**GEOG 40 3.0 units**
World Regional Geography
3 hours lecture.
Grading: letter grade or credit/no credit
The basic concepts and fundamentals of both physical and cultural geography are used for an interpretation of the geographic areas of North America, Africa, Europe, countries that comprised the former Soviet Union, Asia, the Middle East and the Pacific area. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**GEOG 48 3.0 units**
Geography of California
3 hours lecture.
Grading: letter grade or credit/no credit
An intro to the diversity of the state of California through study of its cultural and social geography, regions, landscapes and resources. An investigation of the origins of California’s ethnic diversity, regional contrasts, resources and problems. The future of California is examined using spatial analysis and field investigations. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**GEOG 640 0.0 units**
World Regional Geography
2 hours lecture.
Grading: no grade awarded
A study of the physical and cultural characteristics of various world regions, emphasizing topography, major cities, customs and traditions. (Enrollment is designed for older adults residing in convalescent homes.)

**GEOGRAPHY, PHYSICAL**

PGEOG 1 (CAN GEOG 2) 3.0 units
Earth Surface Study
3 hours lecture.
Grading: letter grade or credit/no credit
Survey the materials and structure forming the earth and the processes by which it has been and is being changed. A general cultural course for liberal arts students and a beginning course for geology majors. One Saturday field trip is required. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

**GEOLOGY**

GEOL 1 4.0 units
General Physical Geology
3.5 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Survey the materials and structure forming the earth and the processes by which it has been and is being changed. A general course for liberal arts students and a beginning course for geology majors. One Saturday field trip is required. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

GEOL 1H 4.0 units
Honors General Physical Geology
3.5 hours lecture, 3 hours laboratory
Prerequisite: Qualification for the Honors Program.
Grading: letter grade or credit/no credit
Survey the materials and structure forming the earth and the processes by which it has been and is being changed. A general course for liberal arts students and a beginning course for geology majors. One Saturday field trip is required. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

GEOL 2 (part of CAN GEOL 2) 3.0 units
General Geology, Physical
3 hours lecture.
Grading: letter grade or credit/no credit
Survey the materials and structure forming the earth and the processes by which it has been and is being changed. A general course for liberal arts students and a beginning course for geology majors. One Saturday field trip is required. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

GEOL 2F 1.0 unit
Geology Field Trips
1.3 hours lecture.
Corequisite: GEOL 1 or 2
Grading: letter grade or credit/no credit
Three Saturday field trips, including the San Andreas Fault, Palos Verdes Hills and the Santa Ana Mountains-Dana Point, to acquaint students with local geology and associated environmental problems. Does not fulfill the requirement for a lab science. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

GEOL 2L (part of CAN GEOL 2) 1.0 unit
General Geology, Physical Geology Lab
1 hour lecture, 2 hours laboratory
Prerequisite: GEOL 2 (may be taken concurrently)
Grading: letter grade or credit/no credit
Provides lab exercises in identification of rocks and minerals, reading and interpretation of topographic maps and aerial photographs, study of rock structures and geomorphology, examination of specimens collected on field trips. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

GEOL 3 3.0 units
Historical Geology
4 hours lecture.
Grading: letter grade or credit/no credit
A study of earth history through an analysis of the fossil and rock record. Examine the evidence for ancient climatic fluctuations in order to evaluate the theory of recent global warming. A general course for liberal arts students and a beginning course for geology majors. One Saturday field trip is required. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

GEOL 3H 4.0 units
Honors Historical Geology
4 hours lecture, 2 hours laboratory
Prerequisite: Qualification for the Honors Program.
Grading: letter grade or credit/no credit
A study of earth history through an analysis of the fossil and rock record. Examine the evidence for ancient climatic fluctuations in order to evaluate the theory of recent global warming. A general course for liberal arts students and a beginning course for geology majors. One Saturday field trip is required. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

GEOL 4 2.0 units
Field Geology
1.5 hours lecture, 1.5 hours laboratory
Prerequisite: GEOL 1 or 2, or 5 (may be taken concurrently)
Grading: letter grade or credit/no credit
A field course to selected locations in the Owens Valley and Death Valley. Offered fall semester. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

GEOL 5 3.0 units
Environmental Geology
3 hours lecture.
Grading: letter grade or credit/no credit
Learn about natural hazards affecting the greater Los Angeles area, how to assess danger from these hazards and what you can do to minimize personal damage. Explore environmental issues of the Los Angeles basin that are directly related to the earth, such as water supply, pollution and land use. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

GEOL 7AD 2.0 units
Field Studies: Western Environments
1.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: GEOL 1, 2, 3 or 18 or concurrent enrollment.
Grading: letter grade or credit/no credit
A field studies course to geologically interesting areas of the west. Emphasis will be to identify clues in the rock and fossil record which indicate past environmental conditions in the Western United States. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

GEOL 16 3.0 units
Field Techniques/Geol: So Calif Deserts
2 hours lecture, 3 hours laboratory
Courses of Instruction

GERMAN

GER 1 (CAN GERM 2) 5.0 units
Elementary German
5 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
Intro to the German language, emphasizing listening, comprehension, conversation, reading and writing skills to develop control of the basic sounds, forms and structure of German. Topics for conversation are everyday life situations and issues in the German world. Not recommended for native speakers of German or students who have completed one year of high school German with a grade of B or better. Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.

GER 1A 3.0 units
Elementary German 1A
3 hours lecture.
Grading: letter grade or credit/no credit
Intro to the German language, emphasizing listening, comprehension, conversation, reading and writing skills to develop control of the basic sounds, forms and structure of German. Topics for conversation are everyday life situations and issues in the German world. Not recommended for native speakers of German or students who have completed one year of high school German with a grade of B or better. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

GER 1B 2.0 units
Elementary German 1B
2 hours lecture, 1 hour laboratory
Prerequisite: GER 1A.
Grading: letter grade or credit/no credit

Intro to the German language, emphasizing listening, comprehension, conversation, reading and writing skills to develop control of the basic sounds, forms and structure of German. Topics for conversation are everyday life situations and issues in the German world. Not recommended for native speakers of German or students who have completed one year of high school German with a grade of B or better. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

GER 2 (CAN GERM 4) 5.0 units
Elementary German
5 hours lecture, 1 hour laboratory
Prerequisite: GER 1 or GER 1A-B or recent completion of one year of high school German.
Grading: letter grade or credit/no credit
Continuation of the study of basic grammar forms. Major emphasis is on listening and speaking. Reading and writing based on modern topical material are required. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

GER 2A 3.0 units
Elementary German 2A
3 hours lecture.
Prerequisite: GER 1 or 1A-B or recent completion of one year of high school German.
Grading: letter grade or credit/no credit
Continuation of the study of basic grammar forms. Major emphasis is on listening and speaking. Reading and writing based on modern topical material are required. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

GER 2B 2.0 units
Elementary German 2B
2 hours lecture, 1 hour laboratory
Prerequisite: GER 2A.
Grading: letter grade or credit/no credit
Continuation of the study of basic grammar forms. Major emphasis is on listening and speaking. Reading and writing based on modern topical material are required. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

GER 3 (CAN GERM 8) 5.0 units
Intermediate German
5 hours lecture.
Prerequisite: GER 2 or 2A-B or recent completion of two years of high school German.
Grading: letter grade or credit/no credit
A review of German grammar. An intensive study of idiomatic expressions and vocabulary based on the reading of short stories and a variety of articles and situational dialogues which reflect German culture. Development of reading and writing based on reading material and personal experiences. Transfer Status: Transferable to UC/CSU, see counselor for limitations.
Course articulated with LBUSD.

GER 3H (CAN GERM 8) 5.0 units
Honors Intermediate German
5 hours lecture.
Prerequisite: GER 2 or 2A-B or recent completion of two years of high school German. Qualification for the Honors Program.
Grading: letter grade or credit/no credit
An intensive study of the German culture, art and language based on the reading of short stories, a variety of articles, literary selections by famous authors, film
and the study of contemporary newspapers and magazines. Development of reading and writing, a study of German values in art and literature and a review of German grammar based on reading material and personal experiences. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

GER 4 (CAN GERM 10) 5.0 units
Intermediate German
5 hours lecture.
Prerequisite: GER 3 or recent completion of three years of high school German.
Grading: letter grade or credit/no credit
Continuation of the review of German grammar, emphasizing a more advanced structure. Reading of short stories and literary selections by famous contemporary German authors. Extensive practice in comprehension, speaking, writing and reading. Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.

GER 4H (CAN GERM 10) 5.0 units
Honors Intermediate German
5 hours lecture.
Prerequisite: GER 3 or recent completion of three years of high school German. Qualification for the Honors Program.
Grading: letter grade or credit/no credit
A continuation of an intensive study of the German culture, art and language based on the reading of short stories, a variety of articles, literary selections by famous authors, German films and a study of German values in history. Also, a continuation of the review of German grammar with an emphasis on how syntax and vocabulary facilitate the development of ideas. Readings of short stories and literary selections by famous contemporary German authors will expand the knowledge acquired in GER 3 dealing with German art and literature. Furthermore, a career focus to language and the various professional disciplines will be added to reinforce the student’s understanding of modern German culture. Finally, relating language to culture is the central focus. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

GER 8AD 2.0 units
Spoken German
3 hours lecture.
Prerequisite: GER 2 or 2A-2B
Grading: letter grade or credit/no credit
An intensive study and practice of spoken German conversation based on practical, everyday situations concerning travel, business, current events, culture and people in German-speaking countries. The emphasis is on enlarging vocabulary on current idiomatic usage and on language patterns fundamental to the active use of German. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

GER 25A 3.0 units
Advanced German: Culture in Literature
3 hours lecture.
Prerequisite: GER 4
Grading: letter grade or credit/no credit
The study of German culture in short stories, fables, biographies, etc. Review grammar, stressing oral and written composition and practice for fluency. Emphasizes a career-related language with a choice of collateral readings relative to business, science or the humanities. Attention is given to developing vocabulary and standard forms appropriate to individual career objectives. Outside reading and reporting in the respective field of study are included. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

GER 25B 3.0 units
Advanced German: History
3 hours lecture.
Prerequisite: GER 4
Grading: letter grade or credit/no credit
Study the history of German speaking countries from early to the present time through texts from history books. Review grammar, stressing oral and written composition, and practice for fluency. Emphasizes a career-related language with a choice of collateral readings relative to business, science or the humanities. Attention is given to developing vocabulary and standard forms appropriate to individual career objectives. Outside reading and reporting in the respective field of study are included. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

GER 25C 3.0 units
Advanced German: Politics, Current Event
3 hours lecture.
Prerequisite: GER 4
Grading: letter grade or credit/no credit
A study of political and other current events through newspapers and magazine articles. Review grammar, stressing oral and written composition, and practice for fluency. Emphasizes a career-related language with a choice of collateral readings relative to business, science or the humanities. Attention is given to developing vocabulary and standard forms appropriate to individual career objectives. Outside reading and reporting in the respective field of study or in representative German literature. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

GER 25D 3.0 units
Advanced German: Literature
3 hours lecture.
Prerequisite: GER 4
Grading: letter grade or credit/no credit
Review grammar, stressing oral and written composition, and practice for fluency. Emphasis is on career-related language with a choice of collateral readings relative to business, science or the humanities. Attention is given to developing vocabulary and standard forms appropriate to individual career objectives. Study different literary genres through short novels, fairy tales, poems, etc. Outside readings and reporting in the respective field of study or in representative German literature are included. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HEALTH EDUCATION

HLED 2 2.0 units
Introduction to Health Education
2 hours lecture.
Grading: letter grade or credit/no credit
General study of health designed to promote desirable health attitudes and to provide up-to-date information in the areas of individual, family and community health. Not open for credit to students registered in or with credit in HLED 3. Fulfills AA/AS degree requirements in
Courses of Instruction

HLED 3 3.0 units
Contemporary Health Problems
3 hours lecture.
Grading: letter grade or credit/no credit
Action-oriented course with up-to-date presentations of current health problems and the methods of coping. Speakers, videos, slides and student experiences will be employed to acquaint students with the facts and the choices they have as consumers of health service and products. Not open for credit to students registered in or with credit in HLED 2. Fulfills AA/AS degree requirements in Health Education. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HLED 4 3.0 units
Women's Health Issues
3 hours lecture.
Grading: letter grade or credit/no credit
Proposes to help women attain an optimum state of health; includes becoming discerning consumers of the health care industry. Fundamentals of normal physiology and natural defense mechanisms will be covered to the extent necessary to promote understanding of the cause, prevention and treatment of various conditions or disorders, including reproductive organ dysfunction, menstrual disorders, sexually transmitted diseases. infertility, complications of pregnancy, osteoporosis, cancer and cardiovascular disease. The importance of lifestyle habits will be emphasized. Other topics include gender differences in health and mortality and the history and current status of research on women's health issues. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

AC/R 211 10.0 units
Air Condition/Refrigeration Fundamentals
5 hours lecture, 15 hours laboratory
Grading: letter grade or credit/no credit
Covers electrical systems found in heating, refrigeration and air conditioning installations and equipment. Includes the interpretation of schematic wiring diagrams, electrical components and applications.

AC/R 220 3.0 units
Refrigeration Fundamentals
2.5 hours lecture, 1.5 hours laboratory
Prerequisite: AC/R 213
Grading: letter grade or credit/no credit
Covers the operation and installation or use of different types of components and equipment, piping, psychrometrics, heating and cooling loads, duct sizing and layout.

AC/R 223 3.0 units
Gas Heating Fundamentals
2.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: Refrigeration fundamentals
Grading: letter grade or credit/no credit
Covers the theory, operation and application of natural gas heating systems used in residential and commercial heating installations including the properties of fuel gases, gas combustion, furnace construction pilot proving devices and troubleshooting systems.

AC/R 226 2.0 units
Air Properties and Measurement
2 hours lecture
Prerequisite: AC/R 220
Grading: letter grade or credit/no credit
Investigates the air side operating theory and application of comfort cooling systems. Includes the psychometrics of the measurement and air distribution through duct design and component identification.

AC/R 229 3.0 units
Heat Pumps
2.5 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
Covers the theory, operation and application of heat pump systems used in residential and commercial heating and cooling installations. The heat pump refrigeration cycle, reversing valves, defrost methods, supplemental heat, airflow and thermostats will also be covered.
Courses of Instruction

AC/R 230 3.0 units
Electrical Fundamentals
2.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: Refrigeration fundamentals
Grading: letter grade or credit/no credit
Includes the basic concepts of electrical principles as used in air conditioning and refrigeration. The development of schematic diagrams, the application of electrical components, the electrical sequence of operation and troubleshooting of electrical systems will be covered.

AC/R 233 3.0 units
Commercial Electrical for HVAC
3 hours lecture.
Prerequisite: AC/R 230
Grading: letter grade or credit/no credit
Covers electrical systems found in commercial heating, refrigeration and air conditioning systems. Time clocks, defrost systems, three phase transformers, three phase motors, timers, sequencers, starting methods and troubleshooting of commercial electrical systems will also be covered.

AC/R 236A 2.5 units
Automobile Air Conditioning
2 hours lecture, 1.5 hours laboratory
Prerequisite: AC/R 230
Grading: letter grade or credit/no credit
Covers tools, equipment, refrigeration fundamentals, electrical systems, air distribution, installation and repair of automobile air conditioning. System dehydation, recovery techniques, charging of refrigerants will also be covered. The material will reflect the current Environmental Protection Agency (EPA) requirements of Section 609 of the Clean Air Act of 1990.

AC/R 236B 2.5 units
Advanced Automotive Air Conditioning
2 hours lecture, 1.5 hours laboratory
Prerequisite: AC/R 236A
Grading: letter grade or credit/no credit
Covers tools and equipment of advanced refrigeration, electrical systems, air distribution, installation and repair of automobile air conditioning. System dehydation, recovery techniques, charging of refrigerants will also be covered. The material will reflect the current Environmental Protection Agency (EPA) requirements of Section 609 of the Clean Air Act of 1990.

AC/R 240 4.0 units
Advanced Air Conditioning
3 hours lecture, 3 hours laboratory
Prerequisite: AC/R 213
Grading: letter grade or credit/no credit
Covers the measurement of air and water flow, KW, circulation of EER and COP and solid state controls. Will wire and troubleshoot complex electrical controls for refrigeration and air conditioning systems.

AC/R 270AD 1.0 unit
Work Experience Issues — AC/Refrigreation
1 hour lecture.
Corequisite: Enrollment in at least seven units including AC/R 271AD, 272AD or 273AD and 270AD.
Grading: letter grade or credit/no credit
Seminar related to work experience. Discussion of work experience objectives, career goals, employment search, communication skills and problem solving.

AC/R 271AD 1.0 unit
Work Experience — Air Cond & Refri
4.1 hours laboratory
Corequisite: Enrollment in at least seven units including AC/R 270AD and 271AD.
Grading: letter grade or credit/no credit
Satisfactory completion of at least 7 units per semester including work experience and work experience issues. Vocational learning experiences through employment in work experience directly related to the industry.

AC/R 272 1.5 units
Fans & Fan Applications
1.5 hours lecture.
Grading: letter grade or credit/no credit
An overview of fans and practical applications. The emphasis is on correction of field problems, maintenance and repair of operating equipment, system balancing and noise control.

AC/R 272AD 2.0 units
Work Experience — Air Cond & Refri
8.3 hours laboratory
Corequisite: Enrollment in at least seven units including AC/R 270AD and 272AD.
Grading: letter grade or credit/no credit
Satisfactory completion of at least 7 units per semester including work experience and work experience issues. Vocational learning experiences through employment in work experience directly related to the industry.

AC/R 273AD 3.0 units
Work Experience — Air Cond & Refri
12.5 hours laboratory
Corequisite: Enrollment in at least seven units including AC/R 270AD and 273AD.
Grading: letter grade or credit/no credit
Satisfactory completion of at least 7 units per semester including work experience and work experience issues. Vocational learning experiences through employment in work experience directly related to the industry.

AC/R 400A 3.0 units
Uniform Mechanical Code I
3 hours lecture.
Grading: letter grade or credit/no credit
Learn to better understand and interpret the code ordinances involving the installation of residential heating, air conditioning and venting systems.

AC/R 400B 3.0 units
Uniform Mechanical Code II
3 hours lecture.
Prerequisite: AC/R 400A
Grading: letter grade or credit/no credit
For the individual who deals with the design of heating, cooling, ventilation and refrigeration in large complex buildings. Covers areas where the building and mechanical codes overlap.

AC/R 420A 6.0 units
Air Conditioning/Refrig Service & Repair
6 hours lecture.
Grading: letter grade or credit/no credit
Operation, maintenance, repair and installation of domestic and commercial air conditioning and refrigeration equipment and systems.
AC/R 420B 6.0 units
Air Conditioning/Refrig Service & Repair
6 hours lecture.
Prerequisite: AC/R 420A
Grading: letter grade or credit/no credit
Operation, maintenance, repair and installation of domestic and commercial air conditioning and refrigeration equipment and systems.

AC/R 420C 6.0 units
Air Conditioning/Refrig Service & Repair
6 hours lecture.
Prerequisite: AC/R 420B
Grading: letter grade or credit/no credit
Operation, maintenance, repair and installation of domestic and commercial air conditioning and refrigeration equipment and systems.

AC/R 420D 6.0 units
Air Conditioning/Refrig Service & Repair
6 hours lecture.
Prerequisite: AC/R 420C
Grading: letter grade or credit/no credit
Operation, maintenance, repair and installation of domestic and commercial air conditioning and refrigeration equipment and systems.

AC/R 421A 3.0 units
Elect Controls for Refrig/Air Cond/Heat
3 hours lecture.
Grading: letter grade or credit/no credit
Selection, application and maintenance of automatic controls to heating, ventilating and cooling systems.

AC/R 421B 3.0 units
Pneumatic Controls For HVAC
3 hours lecture.
Prerequisite: AC/R 421A
Grading: letter grade or credit/no credit
Teaches selection, application and maintenance of automatic controls to heating, ventilating and cooling systems.

AC/R 422 3.0 units
Air Cond System Design And Installation
3 hours lecture.
Grading: letter grade or credit/no credit
Terminology, system design, equipment application estimating and selection of equipment used in residential and commercial applications of air conditioning, heating and ventilating systems. For service technicians, industry sales personnel, industry supply house personnel, installers, utility and school district personnel, designers of buildings and residences.

AC/R 450A 5.0 units
Transport Refrigeration
4 hours lecture, 3 hours laboratory
Grading: letter grade.
Intro to transport refrigeration including application, function, power supply, basic operation safety and troubleshooting of mechanical and electrical components.

AC/R 450B 5.0 units
Advanced Transport Refrigeration
4 hours lecture, 3 hours laboratory
Prerequisite: AC/R 450A
Grading: letter grade.
Advanced transport refrigeration including application, function, power supply, basic operation safety and troubleshooting of mechanical and electrical components.

HISTORY

HIST 1A (CAN HIST 2) 3.0 units
History: Western (European) Civilization
3 hours lecture.
Grading: letter grade.
A broad survey of European civilization and its world significance from pre-history to the end of the Thirty Years War, including Greece, Rome, Middle Ages, Renaissance and Reformation through the Age of Discovery. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 1AH 3.0 units
Honors History of Western European Civ
3 hours lecture.
Prerequisite: Qualification for the Honors Program.
Grading: letter grade.
A broad survey of European civilization and its world significance from pre-history to the end of the Thirty Years War, including Greece, Rome, Middle Ages, Renaissance and Reformation through the Age of Discovery. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 1B (CAN HIST 4) 3.0 units
History: Western (European) Civilization
3 hours lecture.
Grading: letter grade.
Traces European civilization from the end of the Thirty Years War in 1648 to the present, including the French Revolution, Napoleonic era, Industrial Revolution, age of nationalism and imperialism, World Wars I and II, atomic age and rise and fall of the great powers and the post-war era. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 1BH 3.0 units
Honors History of Western European Civ
3 hours lecture.
Prerequisite: Qualification for the Honors Program.
Grading: letter grade.
Traces European civilization from the end of the Thirty Years War in 1648 to the present, including the French Revolution, Napoleonic era, Industrial Revolution, age of nationalism and imperialism, World Wars I and II, atomic age and rise and fall of Soviet power and the post cold war era. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 2A 3.0 units
The Ancient World
3 hours lecture.
Grading: letter grade.
An intro to the earliest stages of human culture from Paleolithic times through the establishment of the classical civilization of the Eurasian continent and Nilotic Africa. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 2B 3.0 units
World Civilizations
3 hours lecture.
Grading: letter grade.
Courses of Instruction

An intro to the development of the world civilization from the ancient world to about 1700. The emphasis is comparative and the focus is on the interactions of major cultures. Includes migration and settlement patterns, the role of universal religions, major medieval civilizations, technology and the effects of explorations and colonization movements. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 2C 3.0 units

The Modern World
3 hours lecture.
Grading: letter grade.
A comprehensive survey of the major world civilizations at the start of the European expansion. The creation of European colonial empires around the world and their overall impact is a major focus, as is the role of industrialization, science, technological innovation and communication in the decades after 1700. Competing ideologies and their impact are linked to the emergence of the modern nation state. Major themes are brought together in a close examination of the problems and successes of the contemporary era. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 2CH 3.0 units

Honors The Modern World
3 hours lecture.
Prerequisite: Qualification for the Honors Program.
Grading: letter grade.
A comprehensive survey of the major world civilizations at the start of European expansion. The creation of European colonial empires around the world and their overall impact is a major focus, as is the role of industrialization, science, technological innovation and communication in the decades after 1700. Competing ideologies and their impact are linked to the emergence of the modern nation state. Major themes are brought together in a close examination of the problems and successes of the contemporary era. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 5A 3.0 units

History of England and Great Britain
3 hours lecture.
Grading: letter grade.
A survey of English history from earliest times through the reign of Queen Anne (1714). Anglo-Saxon, Norman, Plantagenet (Angevin), Tudor and Stuart contributions to the evolution of English law, politics, economics, social class structure and culture will be examined closely and evaluated. Recommended for pre-legal students and majors in English. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 5B 3.0 units

History of England and Great Britain
3 hours lecture.
Grading: letter grade.
A survey of English history from the Accession of George I of Hanover (1714) through the closing decades of the Second Hundred Years’ War, expansion of the New British Empire, the age of Victoria, causes and effects of World Wars I and II and postwar adjustments by the United Kingdom to a new set of realities up to the present time. Recommended for pre-legal students and majors in English. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 6 3.0 units

History of Russia
3 hours lecture.
Grading: letter grade.
A survey of Russian history from the founding of the Russian state to the present. Emphasizes Imperial Russia in the 19th century, the road to revolution in 1917, development of Soviet society and the role of the former USSR in international affairs and the post Cold War Russia. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 8A 3.0 units

History of the Americas
3 hours lecture.
Grading: letter grade.
A comprehensive survey of the Western Hemisphere from its earliest contact with European civilization through the five centuries to the present. The fall semester (8A) gives particular attention to the structures of Pre-Columbian cultures, the conquest period and the subsequent development of European colonial empires in the new world. The spring semester (8B) focuses on the struggle for independence, the development of distinct national identities among new world republics and the problems of economic, political and social development these countries faced over the last century. Both courses are comparative and chronological in scope for Latin America, Canada and the United States. Recommended for Spanish majors. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 8AH 3.0 units

Honors History of the Americas
3 hours lecture.
Prerequisite: Qualification for the Honors Program.
Grading: letter grade.
A comprehensive analysis of the principal cultural areas of the Western Hemisphere from their earliest contact with European civilization. Focuses on Amerindian cultures, colonial systems, the struggles for independence and the development of distinct national identities in the early decades after independence. Comparative in approach and scope for Latin America, Canada and the United States. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 8B 3.0 units

History of the Americas
3 hours lecture.
Grading: letter grade.
A comprehensive survey of the Western Hemisphere from its earliest contact with European civilization through the five centuries to the present. The fall semester (8A) gives particular attention to the structures of Pre-Columbian cultures, the conquest period and the subsequent development of European colonial empires in the new world. The spring semester (8B) focuses on the struggle for independence, the development of distinct national identities among new world republics and the problems of economic, political and social development these countries faced over the last century. Both courses are comparative and chronological in scope for Latin America, Canada and the United States. Recommended for Spanish majors. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 8BH 3.0 units

Honors History of the Americas
3 hours lecture.
Courses of Instruction

Prerequisite: Qualification for the Honors Program.
Grading: letter grade.
A comprehensive analysis of the principal nations of the Americas from the mid-nineteenth century era of newly won independence to the complex economic, political and social problems of the present. Comparative in approach and scope for Latin America, Canada and the United States. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 9A 3.0 units
History of China
3 hours lecture.
Grading: letter grade or credit/no credit
A survey of the history of China from antiquity to the present, emphasizing the modern era the last century. Particular attention is given to the evolution of the traditional Chinese civilization, the impact of modern imperialism on that culture, the building of a new society in the People’s Republic of China and China’s role in the contemporary world. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 9B 3.0 units
History of Japan and Korea
3 hours lecture.
Grading: letter grade or credit/no credit
A survey of the history of Japan and Korea from antiquity to the present. The relationship of each country to the Chinese civilization is explored, as well as the evolution of unique Japanese and Korean cultures. Emphasizes the modern era with the impact of the West, the movement to modernize and a growing involvement in world affairs. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 9C 3.0 units
History of India and Southeast Asia
3 hours lecture.
Grading: letter grade or credit/no credit
A survey of the history of India and Southeast Asia from antiquity to the present. Emphasizes the political, economic, social and religious characteristics of traditional India, the impact of the Moslem and British invasions of India and the development of independent, modern India. Southeast Asia is studied through the history of representative nations and cultures, such as Vietnam and Indonesia. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 10 (CAN HIST 8) 3.0 units
Hist/Early America (Colonial-Reconstr)
3 hours lecture.
Grading: letter grade.
A study of major political, economic, social, diplomatic and intellectual trends and events from Colonial times through Reconstruction (1877). Attention is focused on the birth of American society, establishment of the nation, westward expansion, the issue of slavery, the development of a multi-ethnic culture, the Civil War and reconstruction of the South. HIST 10 and 11 need not be taken in sequence, if the student desires to take both courses. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 11 (CAN HIST 10) 3.0 units
Hist/Modern America (Reconstr-Present)
3 hours lecture.
Grading: letter grade.
A study of major political, economic, social, diplomatic and intellectual trends and events from the end of Reconstruction (1877) to the present. Emphasizes the building of the modern industrial society, growing involvement in international relations, the evolution of a multi-ethnic community and social reform movements of the 20th century. HIST 10 and 11 need not be taken in sequence if the student desires to take both courses. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 18 3.0 units
History of Mexico
3 hours lecture.
Grading: letter grade or credit/no credit
A survey of the historical and cultural development from the pre-Columbian era to the present. Emphasizes the major intellectual, social and political movements in the formation of modern Mexico. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 25 3.0 units
History of American Woman
3 hours lecture.
Grading: letter grade.
Survey of the history of women in America from the Colonial period to the present, emphasizing the relevant political, economic and social factors that shaped women’s experiences in the United States. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 27A 3.0 units
History of the African-American to 1877
3 hours lecture.
Grading: letter grade or credit/no credit
A comprehensive survey of the African-American experience in the United States from the colonial period to the Civil War. Includes the African civilization prior to European enslavement, the American institution of slavery and the role of African-Americans during colonial wars. Emphasizes the contributions of African-Americans to the social, economic and political development of the United States. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 27B 3.0 units
Hist/African-American (Reconstr-Present)
3 hours lecture.
Grading: letter grade or credit/no credit
A comprehensive survey of African-American social, political and economic development in the United States from the Reconstruction Period to the present. Will examine Jim Crow and white supremacy, the modern civil rights movement and the new struggle for community economic development and educational and employment in the twenty-first century. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

HIST 48 3.0 units
History of California
3 hours lecture.
Grading: letter grade or credit/no credit
A comprehensive survey of California from pre-Columbian times to the present. Focuses on Amerindian cultures, the exploration, colonization and development of Hispanic California, the coming of the American and the political, economic and cultural development of California since its acquisition by the United States. Recommended for those planning a
Courses of Instruction

HORTICULTURE

HORT 11A 3.0 units
Plant Identification—Trees
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Focuses on the study of trees, including identification, culture and landscape uses. Transfer Status: Transferable to CSU, see counselor for limitations.

HORT 11B 3.0 units
Plant Identification—Shrubs
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Focuses on the study of shrubs, including identification, culture and landscape uses. Transfer Status: Transferable to CSU, see counselor for limitations.

HORT 11C 3.0 units
Plant Identification—Herbaceous
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Focuses on the study of herbaceous plants, including identification, culture and landscape uses. Transfer Status: Transferable to CSU, see counselor for limitations.

HORT 10A 4.0 units
Greenhouse Management and Operation
2 hours lecture, 6 hours laboratory
Grading: letter grade or credit/no credit
Learn greenhouse structure, heating and cooling systems, humidity and watering systems, propagation systems and controls, proper soil mix, fertilizer and injector systems, propagation methods, transplanting, shifting of nursery stock, quality and inventory control, shipping practices and credit management. Automation, mechanization and other labor saving equipment and procedures will be discussed. Transfer Status: Transferable to CSU, see counselor for limitations.

HORT 10B 4.0 units
Greenhouse Management and Operation
2 hours lecture, 6 hours laboratory
Grading: letter grade or credit/no credit
Learn greenhouse structure, heating and cooling systems, humidity and watering systems, propagation systems and controls, proper soil mix, fertilizer and injector systems, propagation methods, transplanting, shifting of nursery stock, quality and inventory control, shipping practices and credit management. Automation, mechanization and other labor saving equipment and procedures will be discussed. Transfer Status: Transferable to CSU, see counselor for limitations.

HORT 11D 3.0 units
Plant Identification—Tropicals
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Focuses on the study of tropical plants, including identification, culture and landscape uses. Transfer Status: Transferable to CSU, see counselor for limitations.

HORT 15A 2.0 units
Basic Horticulture
1.5 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
Learn the basic aspects and techniques of the horticulture industry: nomenclature, plant physiology, soils, fertilizers, irrigation, propagation, pruning and pest identification and control. Transfer Status: Transferable to CSU, see counselor for limitations.

HORT 15B 2.0 units
Basic Horticulture
1.5 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
Learn the basic aspects and techniques of the horticulture industry: nomenclature, plant physiology, soils, fertilizers, irrigation, propagation, pruning and pest identification and control. Transfer Status: Transferable to CSU, see counselor for limitations.

HORT 19A 4.0 units
Turf Management (Fall)
2 hours lecture, 6 hours laboratory
Grading: letter grade or credit/no credit
Learn turf identification, culture requirements, climatic conditions, pests and diseases, watering techniques, installation and repair of irrigation systems and maintenance of new turf. Participate in removal of sod and installation of new turf from seed, sod and stolons. Transfer Status: Transferable to CSU, see counselor for limitations.

HORT 19B 4.0 units
Turf Management (Spring)
2 hours lecture, 6 hours laboratory
Grading: letter grade or credit/no credit
Learn turf identification, culture requirements, climatic conditions, pests and diseases, watering techniques, installation and repair of irrigation systems and maintenance of new turf. Participate in removal of sod and installation of new turf from seed, sod and stolons. Transfer Status: Transferable to CSU, see counselor for limitations.

HORT 21 3.0 units
Principles of Landscape Design
3 hours lecture.
Grading: letter grade or credit/no credit
Learn basic landscape design and drafting skills: landscape symbols and lettering for plant materials, hardscape, irrigation, lighting and electrical, local and state codes. Prepare finished drawing of a new landscape site and cost estimates for materials and labor. Transfer Status: Transferable to CSU, see counselor for limitations.

HIST 49 3.0 units
History of the American West
3 hours lecture.
Grading: letter grade.
A broad survey of the history of the American West and its significance from pre-history to the present, including Native Americans, the frontier experience, the Gold Rush, women and the diverse cultures of the West, environmental issues, popular representations of the West, twentieth century problems, urban and suburban development. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

teaching career in California. Transfer Status: Transferable to UC/CSU, see counselor for limitations.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
<th>Lecture Hours</th>
<th>Laboratory Hours</th>
<th>Grading</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORT 26A</td>
<td>3.0</td>
<td>Plant Propagation</td>
<td>2</td>
<td>3</td>
<td>letter grade/no credit</td>
<td>Learn sexual and asexual propagation of foliage, annual, perennial, tropical, flowering and ornamental plants, operation and maintenance of propagation chambers and greenhouse and shadehouse systems. Transfer Status: Transferable to CSU; see counselor for limitations.</td>
</tr>
<tr>
<td>HORT 26B</td>
<td>3.0</td>
<td>Plant Propagation</td>
<td>2</td>
<td>3</td>
<td>letter grade/no credit</td>
<td>Learn sexual and asexual propagation of foliage, annual, perennial, tropical, flowering, ornamental plants, operation and maintenance of propagation chambers, greenhouse and shadehouse systems. Transfer Status: Transferable to CSU; see counselor for limitations.</td>
</tr>
<tr>
<td>HORT 26A</td>
<td>3.0</td>
<td>Integrated Pest Management</td>
<td>3</td>
<td></td>
<td>letter grade/no credit</td>
<td>Learn to diagnose pests and disease on ornamental plants and turf, chemical and biological control and their regulation, local, state and federal laws pertaining to pesticide application. Prepare for the pesticide applicator’s exam. Transfer Status: Transferable to CSU; see counselor for limitations.</td>
</tr>
<tr>
<td>HORT 202AB</td>
<td>4.0</td>
<td>Principles of Pruning</td>
<td>2</td>
<td>6</td>
<td>letter grade/no credit</td>
<td>Learn to properly prune trees, shrubs and vines, identify pruning periods for deciduous and evergreen plants, identify and safely operate tools and equipment to industry standards, perform maintenance and repair of tools and equipment.</td>
</tr>
<tr>
<td>HORT 223AD</td>
<td>4.0</td>
<td>Landscape Construction</td>
<td>2</td>
<td>6</td>
<td>letter grade/no credit</td>
<td>Develop a basic knowledge of the theory and application of soil preparation, equipment operation, planting, maintenance and hardscape techniques.</td>
</tr>
<tr>
<td>HORT 227A</td>
<td>2.0</td>
<td>Interior Plant Design/Installation Fall</td>
<td>1.5</td>
<td>1.5</td>
<td>letter grade/no credit</td>
<td>Learn interior landscape design, installation and maintenance techniques, cultural and climatic conditions, pests and diseases and their prevention and control, cool and warm season color and how to bid and sell a design.</td>
</tr>
<tr>
<td>HORT 227B</td>
<td>2.0</td>
<td>Interior Plant Design/Maintenance Spring</td>
<td>1.5</td>
<td>1.5</td>
<td>letter grade/no credit</td>
<td>Learn interior landscape design and maintenance techniques, cultural and climatic conditions, pests and diseases and their prevention and control, cool and warm season color and how to bid and sell a design.</td>
</tr>
<tr>
<td>HORT 270AD</td>
<td>1.0</td>
<td>Work Experience Issues: Horticulture</td>
<td>1</td>
<td></td>
<td>letter grade/no credit</td>
<td>Seminar related to work experience. Discussion of work experience objectives, career goals, employment adjustment and problem areas encountered on the job.</td>
</tr>
<tr>
<td>HORT 271AD</td>
<td>1.0</td>
<td>Work Experience: Horticulture</td>
<td>4.1</td>
<td></td>
<td>letter grade/no credit</td>
<td>An extension of vocational learning experiences through employment in work experience directly related to horticulture/landscape. One unit of credit shall be granted for every 75 hours per semester. Maximum of 12 units.</td>
</tr>
<tr>
<td>HORT 272AD</td>
<td>2.0</td>
<td>Work Experience: Horticulture</td>
<td>8.3</td>
<td></td>
<td>letter grade/no credit</td>
<td>An extension of vocational learning experiences through employment in work experience directly related to horticulture/landscape. One unit of credit shall be granted for every 75 hours per semester. Maximum of 12 units.</td>
</tr>
<tr>
<td>HORT 273AD</td>
<td>3.0</td>
<td>Work Experience: Horticulture</td>
<td>12.5</td>
<td></td>
<td>letter grade/no credit</td>
<td>An extension of vocational learning experiences through employment in work experience directly related to horticulture/landscape. One unit of credit shall be granted for every 75 hours per semester. Maximum of 12 units.</td>
</tr>
<tr>
<td>HORT 430A</td>
<td>4.0</td>
<td>Landscape Maintenance</td>
<td>3</td>
<td>3</td>
<td>letter grade/no credit</td>
<td></td>
</tr>
</tbody>
</table>
Courses of Instruction

Theory and applications of landscape management and installation, plant, weed and pest identification, turf grass, equipment operation and maintenance, manual and automatic irrigation, plant propagation and culture, landscape plans and construction and types of industrial and domestic applications are topics of discussion.

HORT 430B  
Landscape Maintenance  
3 hours lecture, 3 hours laboratory  
Recommended Preparation: HORT 430A  
Grading: letter grade or credit/no credit  
Theory and applications of landscape management and installation, plant, weed and pest identification, turf grass, equipment operation and maintenance, manual and automatic irrigation, plant propagation and culture, landscape plans and construction and types of industrial and domestic applications are topics of discussion.

HORT 611  
Hort/Animal Sci for Disabled Students  
5 hours lecture, 10 hours laboratory  
Grading: no grade awarded  
Designed to cover: grounds maintenance, safe operation of hand and power tools, soils and soil amendments, fertilizers, turf maintenance, flower, vegetable and fruit identification and culture, annuals and perennials, pruning, disease and weed recognition and control, irrigation principles and repair. Landscape plans and construction (limited). Flower design: materials and methods and holiday display. Animal science: care, feeding, reproduction, health, housing and record keeping. Marketing: harvesting, packing, sales and bookkeeping. Industrial applications. Also includes field trips, guest lecturers and special lab and field projects for students with disabilities.

**HOSPITALITY**

THRH 16  
Introduction to Hospitality Management  
3 hours lecture.  
Grading: letter grade.  
Traces the growth and development of the lodging industry from early inns to modern high-rise commercial hotels and highway motels. Discusses the organization of operations, opportunities and future trends, the "Hospitality Attitude," competitive business in the free enterprise system and types of lodging establishments. Study the growth and improvement of the industry as related to management demands, the organization of hotel operations, including all departments and the social, personal and financial growth of a hotel career. Transfer Status: Transferable to CSU, see counselor for limitations.

THRH 22  
Front Office Procedures  
3 hours lecture.  
Grading: letter grade.  
Presents a systematic approach to front office procedures by detailing the flow of business through a hotel beginning with the reservation process and ending with check-out and settlement. Examines the various elements of effective front office management, paying particular attention to planning and evaluating front office operations and personnel management. Front office procedures and management are placed within the context of the overall operation of a hotel. Transfer Status: Transferable to CSU, see counselor for limitations.

THRH 24  
Hospitality Accounting  
3 hours lecture.  
Grading: letter grade.  
Provides basic knowledge of hotel and motel record keeping concepts and techniques. Examine front office procedures and the functions of the night auditor. Text material will be provided for recordkeeping procedures for revenues, expenses, payrolls and financial statements. Transfer Status: Transferable to CSU, see counselor for limitations.

THRH 25  
Hospitality Law  
3 hours lecture.  
Grading: letter grade.  
Creates an awareness of the responsibilities and rights that the law imposes upon and grants to the innkeeper-restauranteur and illustrates the consequences caused by failure in these responsibilities. The attitudes of the courts toward the innkeeper-restauranteur involved in litigation are also discussed. Not only provides the essential information needed to comply with the law that is applicable to its operation, but also a grounding in preventive tactics to avoid a lawsuit and identify areas of potential trouble. Transfer Status: Transferable to CSU, see counselor for limitations.

THRH 26  
Hospitality Supervision  
3 hours lecture.  
Grading: letter grade.  
Designed to teach procedures in the areas of supervising concepts and practices, the mutual expectations of workers and management, hiring, training, coaching, counseling and other qualities important in providing the necessary leadership and guidance of workers. Transfer Status: Transferable to CSU, see counselor for limitations.

THRH 28  
Convention Management & Meeting Planning  
3 hours lecture.  
Grading: letter grade.  
Defines the scope and various segments of the convention and group business market, describes marketing and sales strategies to attract markets with specific needs and explains methods and techniques to meet those needs as part of meeting and convention service. Transfer Status: Transferable to CSU, see counselor for limitations.

THRH 29  
Facilities Management  
3 hours lecture.  
Grading: letter grade.  
Offers a complete approach to the operation and management of the physical plant of a hotel or restaurant. Details are presented in property management and related costs, leasing and contracts, equipment planning and working effectively with the engineering and maintenance department. Transfer Status: Transferable to CSU, see counselor for limitations.

THRH 30  
Hospitality Sales and Marketing  
3 hours lecture.  
Grading: letter grade.  
Provides a complete approach to front office procedures by detailing the flow of business through a hotel beginning with the reservation process and ending with check-out and settlement. Examines the various elements of effective front office management, paying particular attention to planning and evaluating front office operations and personnel management. Front office procedures and management are placed within the context of the overall operation of a hotel. Transfer Status: Transferable to CSU, see counselor for limitations.
Grading: letter grade. Provides a solid background in hospitality sales, advertising and marketing. Discusses effective marketing plans, targeting and selling to the most appropriate markets, networking and producing marketing and sales materials that deliver benefits to the hospitality operation. Transfer Status: Transferable to CSU, see counselor for limitations.

THRH 31 3.0 units
Resort Operations
3 hours lecture.
Grading: letter grade. Complete approach to the operation of resort properties. Beginning with historical development, details are presented in planning, development, financial investment management and marketing that deal with the unique nature of resort business. Also examines the future and the impact of the condominium concept, time-sharing, technological change and the increased cost of energy and transportation. Transfer Status: Transferable to CSU, see counselor for limitations.

THRH 33 3.0 units
Housekeeping & Security Management
3 hours lecture.
Grading: letter grade. An overview of the fundamentals of housekeeping management and the functions, tools and practices required in today's lodging and institutional housekeeping departments. Course offered less than once a year. Transfer Status: Transferable to CSU, see counselor for limitations.

THRH 39 3.0 units
Hospitality Industry Computer Systems
2.5 hours lecture, 1.5 hours laboratory
Grading: letter grade. Provides an overview of the information needs of lodging properties and food service establishments; addresses essential aspects of computer systems, such as hardware, software and generic applications; focuses on computer-based property management systems of both front office and back office functions; examines features of computerized restaurant management systems; describes hotel sales computer application, revenue management strategies and accounting applications; addresses the selection and implementation of computer systems; focuses on managing information systems; and examines the impact of the Internet and private intranets on the hospitality industry. Transfer Status: Transferable to CSU, see counselor for limitations.

THRH 40 3.0 units
Hospitality Computer Systems
2.5 hours lecture, 1.5 hours laboratory
Grading: letter grade. Provides a working knowledge of the computer terminal, including front desk, night audit, management, housekeeping, marketing, city ledger, general accounting and complete payroll systems. Course offered less than once a year. Transfer Status: Transferable to CSU, see counselor for limitations.

THRH 270AD 1.0 unit
Work Experience Issues-Hotel/Rest Mgmt
1 hour lecture.
Corequisite: Enrollment in at least seven units including THRH 271AD, 272AD or 273AD and 270AD. Grading: letter grade or credit/no credit A seminar related to work experience, discussing work experience objectives, career goals, employment adjustment and problem areas encountered on the job.

THRH 271AD 1.0 unit
Work Experience — Hotel/Restaurant Mgmt
4.1 hours laboratory
Corequisite: Enrollment in at least seven units including THRH 270AD and 271AD. Grading: letter grade or credit/no credit An extension of vocational learning through employment directly related to the career for which the student college program is designed.

THRH 272AD 2.0 units
Work Experience — Hotel/Restaurant Mgmt
8.3 hours laboratory
Corequisite: Enrollment in at least seven units including THRH 270AD and 272AD. Grading: letter grade or credit/no credit An extension of vocational learning through employment directly related to the occupational career for which the student college program is designed.

THRH 273AD 3.0 units
Work Experience — Hotel/Restaurant Mgmt
12.5 hours laboratory
Corequisite: Enrollment in at least seven units including THRH 270AD and 273AD. Grading: letter grade or credit/no credit An extension of vocational learning through employment directly related to the career for which the student college program is designed.

HUMAN SERVICES

HS 1 3.0 units
Introduction to Social Work
3 hours lecture.
Grading: letter grade or credit/no credit Identify and analyze the origin and development of the primary helping services in urban and rural communities. Emphasizes social problems and issues which resulted in the development of these services, the value systems significant in their operation and the effect of shifting patterns in society on the delivery of helping services. Class work supplemented by observation of or participating in local primary helping service agencies. Transfer Status: Transferable to CSU, see counselor for limitations.

HS 7 3.0 units
Introduction to Victimology
3 hours lecture.
Grading: letter grade. Explore the cost of victimization to society. Emphasizes information on existing resources, participation in the creation and expansion of knowledge and resources and the career opportunities in the field. Class work supplemented by observation of local primary helping service agencies. Transfer Status: Transferable to CSU, see counselor for limitations.

HS 15 3.0 units
Social Welfare: People with Disabilities
3 hours lecture.
Grading: letter grade.
Courses of Instruction

An overview of various disabilities and their etiology. Study of methods and processes of adjustment of people with various disabilities and their families. A survey of the social psychological factors and societal attitudes that facilitate or inhibit normal functioning. An overview of the various social services available to people with disabilities that assist with education, employment, interaction situations, social skills training, advocacy, self help groups and other services that help people with various disabilities reach their full potential. Transfer Status: Transferable to CSU, see counselor for limitations.

**HS 26**
Introduction to Gerontology
3 hours lecture.
Grading: letter grade or credit/no credit
Provides an overview of the social, psychological and biological effects of aging, emphasizing individual differences among older adults, including ethnic differences. Explore the basic processes, adjustments and environments of the aging and aim at breaking down individual and societal stereotypes. Not open for credit to students registered in or with credit in HOMEC26 or PSYCH26. Transfer Status: Transferable to CSU, see counselor for limitations.

**HS 40A**
Introduction to Addictive Behaviors
3 hours lecture.
Grading: letter grade.
For individuals who wish to expand their knowledge regarding addictive behaviors. Covers the basic causal theories of alcoholism and drug abuse and explores methods of identification, classification, treatment and intervention. Designed to help prepare students for careers in a rapidly growing field. Transfer Status: Transferable to CSU, see counselor for limitations.

**HS 40B**
Introduction to Addictive Behaviors
3 hours lecture.
Grading: letter grade.
For individuals who wish to expand their knowledge regarding addictive behaviors. Covers basic theories of co-dependency and eating disorders and explores methods of identification, classification, treatment and intervention. Designed to help prepare students for careers in a rapidly growing field. Transfer Status: Transferable to CSU, see counselor for limitations.

**HS 70AB**
Work Experience Issues — Human Services
1 hour lecture.
Prerequisite: HS 1
Corequisite: Enrollment in at least seven units including HS 71AB or 72AB and 70AB.
Grading: letter grade or credit/no credit
Emphasizes understanding social services and their relationship to the needs of society, exploration of person-to-person relationships, development of communication skills and refinement of self-evaluation and self-esteem skills required for job success. Transfer Status: Transferable to CSU, see counselor for limitations.

**HS 71AB**
Work Experience — Human Services
3.3 hours laboratory
Prerequisite: HS 1
Corequisite: Enrollment in at least seven units including HS 70AB.
Grading: letter grade or credit/no credit
An extension of vocational learning experiences through employment in work experience directly related to the occupational goal or career major for which the student college program is designed. Transfer Status: Transferable to CSU, see counselor for limitations.

**HS 72AB**
Work Experience — Human Services
6.6 hours laboratory
Prerequisite: HS 1
Corequisite: Enrollment in at least seven units including HS 70AB.
Grading: letter grade or credit/no credit
An extension of vocational learning experiences through employment in work experience directly related to the occupational goal or career major for which the student college program is designed. Transfer Status: Transferable to CSU, see counselor for limitations.

**HS 207**
Development of Helping/Listening Skills
3 hours lecture.
Grading: letter grade or credit/no credit
For persons who are in helping roles in the area of social services. Includes techniques for volunteer, peer and para-professional assistance and counseling. The development of skills in initiating, attending, responding and personalizing aid to a client is the core of the course. Small groups guided through a learning sequence of listening and helping skills are included.

**HS 209**
Human Connections in a Changing Society
3 hours lecture.
Grading: letter grade or credit/no credit
For persons in helping roles for the elderly. Develop an awareness of the problems of both the elderly and their caregivers. Includes discussion regarding stressors, intervention techniques and the needs of caregivers. Lecture and discussion will be supplemented by many opportunities for practical experiences in applying the concepts learned.

**HS 226**
Stress on Caregivers to Elderly
3 hours lecture.
Grading: letter grade.
For persons in helping roles for the elderly. Develop an awareness of the problems of both the elderly and their caregivers. Includes discussion regarding stressors, intervention techniques and the needs of caregivers. Lecture and discussion will be supplemented by many opportunities for practical experiences in applying the concepts learned.

**HS 228**
Life Enhancement for Seniors
3 hours lecture.
Grading: letter grade.
Open to students of all ages, this course will help to explore one’s own personal beliefs and ideas about aging. Learn the components of healthy aging, as well as ways to attain well being in the later years. Techniques such as life planning, education and use of resources will be utilized. Experiential learning is key to this course. Designed for those in the helping services.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Title</th>
<th>Hours</th>
<th>Grading</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS 241</td>
<td>3.0</td>
<td>Introduction to Chemical Dependency</td>
<td>3</td>
<td>letter grade</td>
<td>Takes the student through the history of alcohol abuse and the use of mood altering substances during this century. The ability to abuse and become addicted to other behaviors, such as food and sex, will also be explored. Psychological, social and physical contributions and outcomes of addictive behavior will be studied. Designed for those interested in the helping services.</td>
</tr>
<tr>
<td>HS 243</td>
<td>3.0</td>
<td>Case Management: Treatment &amp; Aftercare</td>
<td>3</td>
<td>letter grade</td>
<td>Designed for those interested in the helping fields, this course will provide strategies for prioritizing problems, organizing cases and applying the law to provide assistance.</td>
</tr>
<tr>
<td>HS 245</td>
<td>3.0</td>
<td>Stress Mgmt for the Helping Professional</td>
<td>3</td>
<td>letter grade</td>
<td>Designed for persons interested in the human services/helping professions.</td>
</tr>
<tr>
<td>HS 246</td>
<td>3.0</td>
<td>Physiological Effects of Alcohol &amp; Drugs</td>
<td>3</td>
<td>letter grade</td>
<td>Examines the effects of alcohol and other psychoactive drugs on the body and everyday behavior. Such issues as drug tolerance, synergistic effects and effects of drugs on sexual performance are used to develop a treatment program.</td>
</tr>
<tr>
<td>HS 247</td>
<td>3.0</td>
<td>Individual, Group and Family Counseling</td>
<td>3</td>
<td>letter grade</td>
<td>Thoroughly explores the counseling process from the perspective of both client and counselor. Therapeutic orientations will be learned and applied, through class role playing, of individual, group and family counseling sessions. Designed for students interested in the helping professions.</td>
</tr>
<tr>
<td>HS 248</td>
<td>3.0</td>
<td>Law and Ethics</td>
<td>3</td>
<td>letter grade</td>
<td>Designed for students interested in the helping professions.</td>
</tr>
<tr>
<td>HS 606</td>
<td>0.0</td>
<td>Life Planning</td>
<td>1</td>
<td>no grade</td>
<td>An overview of how to improve the later years of life with attention to health, consumer skills, self-management issues and entitlements. Designed for senior adults.</td>
</tr>
<tr>
<td>HUMAN 1</td>
<td>3.0</td>
<td>Comparative World Cultures</td>
<td>3</td>
<td>letter grade or credit/no credit</td>
<td>Compares through analysis selected major civilizations and seeks to respond to the current need for intercultural understanding in an interdependent world. Interdisciplinary teams of faculty drawn from the humanities and the social sciences select major cultures from the ancient, medieval and modern periods of world history which are examined thematically. Such themes include how distinctive historical, regional and local cultures design, share, reproduce and meet basic biological, material and symbolic needs, and experienced both continuity and change through internal realignments of their social, economic, political and intellectual institutions or by external contact with other people. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>HUMAN 1H</td>
<td>3.0</td>
<td>Honors Comparative World Cultures</td>
<td>3</td>
<td>letter grade or credit/no credit</td>
<td>Compares through analysis selected major civilizations and seeks to respond to the current need for intercultural understanding in an interdependent world. Interdisciplinary teams of faculty drawn from the humanities and the social sciences select major cultures from the ancient, medieval and modern periods of world history which are examined thematically. Such themes include how distinctive historical, regional and local cultures design, share, reproduce and meet basic biological, material and symbolic needs, and experienced both continuity and change through internal realignments of their social, economic, political and intellectual institutions or by external contact with other people. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>HUMAN 3</td>
<td>3.0</td>
<td>Intro to Issues/Phil, Psych &amp; Religion</td>
<td>3</td>
<td>letter grade</td>
<td>Using a point/counterpoint debate format, a teaching team, composed of a philosopher and a psychologist, compare and integrate insights from three disciplines— philosophy, psychology and religion in a critical investigation of theoretical positions, such as Platonic idealism, Christian theology, Freudian analysis, Skinnerian behaviorism, existentialism and other major intellectual viewpoints. Not open to students registered in or with credit in SOCSC1 or 1H. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>HUMAN 7</td>
<td>3.0</td>
<td>American Pluralism and Identity</td>
<td>3</td>
<td>letter grade or credit/no credit</td>
<td>Not open to students registered in or with credit in SOCSC1 or 1H. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
</tbody>
</table>
Courses of Instruction

Explores the multicultural nature of American society, using more than one discipline. Using the Humanities to analyze the creativity of each ethnic group as they constructed artistic, literary, musical, philosophical and religious identities based on their traditions and experiences, will seek to understand the United States as a common culture. Using the Social Sciences to compare and contrast the origins, living conditions and experiences of America’s constituent populations, will analyze the complexity of the processes effecting the interaction of the American people. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

### INDUSTRIAL RELATIONS

**INDRL 42**

3.0 units

**Basic Human Relations**

3 hours lecture.

Grading: letter grade or credit/no credit

Objectives of human relations, insights from behavioral studies, management and management functions, improving human relations and personal advancement. Transfer Status: Transferable to CSU, see counselor for limitations.

### INTERDISCIPLINARY STUDIES

**INDIS 1AH**

1.0 unit

**Honors Interdisciplinary Seminar**

1 hour lecture.

Prerequisite: Qualification for the Honors Program.

Grading: letter grade or credit/no credit

Analyzes Charles Darwin’s theory and the impact his writing had on science from the perspective of philosophy and biology. Emphasizes the cognitive skills of these disciplines relating the topic of this seminar to the course content listed below. Honors option credit will be granted for students completing the seminar. Intended for students who have completed or are now taking HIST 1A-B, 2B-C, 8A-B, 10, 11 or LIB 1. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**INDIS 1BH**

1.0 unit

**Honors Interdisciplinary Seminar**

1 hour lecture.

Prerequisite: Qualification for the Honors Program.

Grading: letter grade or credit/no credit

Analyzes contemporary American society from the standpoint of power and aggression using the perspective of history and psychology. Emphasizes the cognitive skills of these disciplines relating the topic of this seminar to the course content listed below. Honors option credit will be granted for students completing this seminar. Intended for students who have completed or are now taking HIST 8A-B, 10, 11 or 25 or PSYCH1, 2 or 33. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**INDIS 1CH**

2.0 units

**Honors Interdisciplinary Seminar**

2 hours lecture.

Prerequisite: Qualification for the Honors Program.

Grading: letter grade or credit/no credit

Analyzes the Columbian Revolution from its origins to its impact on the Americas, using the perspective of history and library science. Emphasizes the cognitive skills of these disciplines relating the topic of this seminar to the course content listed below. Honors option credit will be granted for students completing the seminar. Intended for students who have completed or are now taking HIST 1A-B, 2B-C, 8A-B, 10, 11 or LIB 1. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

### INTERIOR DESIGN

**ID 1**

3.0 units

**Fundamentals of Interior Design**

3 hours lecture.

Grading: letter grade or credit/no credit

Application of design principles and elements in planning of total interior environments that meet individual, functional, legal and environmental needs. Emphasizes the background treatments (flooring, walls, windows) and the choices available. Transfer Status: Transferable to CSU, see counselor for limitations.

**ID 5**

2.0 units

**Interior Design Studio I**

1 hour lecture, 3 hours laboratory

Recommended Preparation: Completion or concurrent enrollment in ID 1.

Grading: letter grade or credit/no credit

Designed to apply concepts and theories presented in the lecture course, Intro to Interior Design. Emphasizes the design process in developing solutions for design projects. Transfer Status: Transferable to CSU, see counselor for limitations.

**ID 10**

3.0 units

**Beginning Drafting: Interior Design**

2 hours lecture, 3 hours laboratory

Grading: letter grade or credit/no credit

Applications of methods and theory used for architectural drawings, including basic graphics and projections for design and working drawings. Transfer Status: Transferable to CSU, see counselor for limitations.

**ID 20**

2.0 units

**Interior Design Careers**

2 hours lecture.

Grading: letter grade or credit/no credit

A survey of the interior design profession, industry, related occupations and work sites. Emphasizes personal, educational and professional qualifications required for entry into the interior design profession. Transfer Status: Transferable to CSU, see counselor for limitations.
Courses of Instruction

ID 30  (CAN HEC 18)  4.0 units
Applied Color Theory and Design
3 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Basic design theory and application. Utilization of tools, materials and equipment to develop technical skills applicable to interior, architectural and other related fields of design. Exploration of cultural heritage and psychological implications of design. Transfer Status: Transferable to CSU, see counselor for limitations.

ID 50  4.0 units
Interior Materials and Products
4 hours lecture.
Grading: letter grade or credit/no credit
Analysis, application and evaluation of materials used in interior design. Includes interior textiles, furnishings and finishes materials and products. Transfer Status: Transferable to CSU, see counselor for limitations.

ID 70  3.0 units
Space Planning
2 hours lecture, 3 hours laboratory
Recommended Preparation: ID 10
Grading: letter grade or credit/no credit
The application of programming, theory and techniques in residential and commercial space planning. Skills in drafting and presentation techniques are emphasized in the studio. Transfer Status: Transferable to CSU, see counselor for limitations.

ID 70AD  1.0 unit
Work Experience Issues-Interior Design
1 hour lecture.
Corequisite: Enrollment in at least seven units including ID 71AD, 72AD or 73AD and 70AD.
Grading: letter grade or credit/no credit
Seminar related to work experience. Discussion of work experience objectives, career goals, employment search, communication skills and problem solving. Transfer Status: Transferable to CSU, see counselor for limitations.

ID 71AD  1.0 unit
Work Experience: Interior Design
4.1 hours laboratory
Corequisite: Enrollment in at least seven units including ID 70AD and 71AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment directly related to the industry. Transfer Status: Transferable to CSU, see counselor for limitations.

ID 72AD  2.0 units
Work Experience: Interior Design
8.3 hours laboratory
Corequisite: Enrollment in at least seven units including ID 70AD and 72AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment directly related to the industry Transfer Status: Transferable to CSU, see counselor for limitations.

ID 73AD  3.0 units
Work Experience: Interior Design
12.5 hours laboratory
Corequisite: Enrollment in at least seven units including ID 70AD and 73AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment directly related to the industry. Transfer Status: Transferable to CSU, see counselor for limitations.

ID 76  2.0 units
History of American Material Culture
2 hours lecture.
Grading: letter grade or credit/no credit
A stylistic overview and survey of the American material culture from the 17th to the mid 19th century, emphasizing the decorative arts and furnishings and the social context in which they were made and/or used. Types of artifacts to be studied include furniture, architecture, metal, ceramics, textiles, glass and prints. Transfer Status: Transferable to CSU, see counselor for limitations.

ID 80  3.0 units
History of Interiors and Furnishings I
3 hours lecture.
Grading: letter grade or credit/no credit
The historical relationship between the decorative arts, period furniture and interior architecture is illustrated in this overview of our design heritage from antiquity through the nineteenth century in France. Emphasizes style development as it relates to social, economic and political context. Transfer Status: Transferable to CSU, see counselor for limitations.

ID 90  3.0 units
History of Interiors and Furnishings II
3 hours lecture.
Grading: letter grade or credit/no credit
The historical relationship between the decorative arts, period furniture and interior architecture is illustrated in this overview of our design heritage from antiquity through the sixteenth century England and America, analyze the influences and changes in design to the present. Emphasizes style development as it relates to social, economic and political forces. Transfer Status: Transferable to CSU, see counselor for limitations.

ID 200  2.0 units
Interior Illustration
1 hour lecture, 3 hours laboratory
Recommended Preparation: ID 10
Grading: letter grade or credit/no credit
Covers application methods, techniques and tools used for illustrating interior spaces and products. Instruction will include one and two point perspective, highlighting, shading and shadowing of interior elements.

ID 210  3.0 units
Fundamentals of Lighting
3 hours lecture.
Grading: letter grade or credit/no credit
The fundamentals of lighting, design, theory and application, including the history and vocabulary of lighting: how light affects color and vision, incandescent and fluorescent lamps, lighting techniques for interior designers, codes and energy efficient lighting practices.

ID 215  2.0 units
Interior Design Studio II
1 hour lecture, 3 hours laboratory
Prerequisite: ID 5
Recommended Preparation: ID 30 and/or ID 70
Grading: letter grade or credit/no credit
Courses of Instruction

Covers developing, analyzing and applying design concepts to interior environments. Universal design, “green” design, space planning, lighting systems, interior components, architectural elements and specification writing will be integrated into research projects emphasizing a problem solving approach.

ID 230 3.0 units
Business and Professional Practice
3 hours lecture.
Grading: letter grade or credit/no credit
The business and professional management of an interior design practice, including legal issues, project management and business practices.

ID 270A 2.0 units
Exploring Interior Design
2 hours lecture.
Grading: letter grade or credit/no credit
An intro course designed for the person who is redecorating, remodeling or seeking new ideas or information about future purchases in home furnishings. Includes: choosing furniture, color, window and wall treatments, floor coverings, lighting and accessories. Course articulated with LBUSD.

ID 270B 2.0 units
Exploring Interior Design
2 hours lecture.
Grading: letter grade or credit/no credit
An intro course designed for the person who is redecorating, remodeling or seeking new ideas and information about future purchases in home furnishings. Includes: choosing furniture, color, window and wall treatments, floor coverings, lighting and accessories. Course articulated with LBUSD.

ID 272 1.0 unit
Decorating the Home
1 hour lecture.
Grading: letter grade or credit/no credit
For the individual requiring information about home furnishings in a short term course. Includes tips on how to “master plan” a decorating idea and information on the latest trends and styles in interior design. A practical course for someone ready to buy a new home or remodel an existing one.

ID 286A 2.0 units
Introduction to Floral Design
1.5 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
A study of design elements and principles for basic floral arranging, color coordination, anatomy of flower, hydration of product and florist glossary of terms. Nomenclature and classifications for both “flowers and foliage”, including use of floral tools and mechanics. ID 286A covers fall flowers.

ID 286B 2.0 units
Introduction to Floral Design
1.5 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
A study of design elements and principles for basic floral arranging, color coordination, anatomy of flowers, hydration of product and florist glossary of terms. Nomenclature and classifications for both “flower and foliage”, including use of floral tools and mechanics. ID 286B covers spring flowers.

ID 287AC 2.0 units
Intermediate Floral Design-Spec Tech
1.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: One semester of ID 286A-B
Grading: letter grade or credit/no credit
A combination of three courses (wedding, sympathy, holiday and special occasions) which combined constitute a comprehensive overview of floral techniques at an intermediate level within the floral industry. Wedding: a detailed outline covering each phase of wedding design, mechanics and construction of floral product. Sympathy: complete instructions on the art and science of sympathy designing and construction techniques are stressed for maximum efficiency in design. Holiday and special occasions: Designed for the individual who seeks knowledge and professionalism in the floral industry as specifically related to party work.

ID 288 2.0 units
Advanced Floral Design
1.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: ID 286A-B and ID 287AC
Grading: letter grade or credit/no credit
Techniques for the planning, design and execution of intricate floral arrangements. Includes applications and methods for creating designs in less time for profit. Required for students in the Floral Design Certificate Program.

ID 289 3.0 units
Applied Floral Shop Operation
3 hours lecture
Recommended Preparation: One semester of ID 287AC
Grading: letter grade or credit/no credit
Techniques in floral shop operation, including the handling of perishable floral materials. Required for students in the floral design certificate program.

ITALIAN

ITAL 1 5.0 units
Elementary Italian
5 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
Intro to the Italian language with emphasis on listening, comprehension, conversation, reading and writing skills to develop control of the basic sounds, forms and structure of Italian. Topics for conversation are everyday life situations and issues in the Italian world. Not recommended for native speakers of Italian or students who have completed one year of high school Italian with a grade of B or better or equivalent. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

ITAL 1A 3.0 units
Elementary Italian 1A
3 hours lecture.
Grading: letter grade or credit/no credit
Intro to the Italian language, emphasizing listening, comprehension, conversation, reading and writing skills to develop control of the basic sounds, forms and structure of Italian. Topics for conversation are everyday life situations and issues in the Italian world. Not recommended for native speakers of Italian or students who have completed one year of high school Italian with a grade of B or better. Transfer Status: Transferable to UC/CSU, see counselor for limitations.
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<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>ITAL 1B</td>
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<td>ITAL 2B</td>
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<td>ITAL 3</td>
<td>Intermediate Italian</td>
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<td>JAPAN 1 (CAN JAPN 2)</td>
<td>Elementary Japanese</td>
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<td>JAPAN 1A</td>
<td>Elementary Japanese 1A</td>
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<td>JAPAN 2 (CAN JAPN 4)</td>
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<tr>
<td>JOURN 1A</td>
<td>Introduction to Desktop Publication</td>
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Courses of Instruction

Study and practice in writing, editing, designing and producing desktop publications, such as fliers, brochures, newsletters, small magazines and newspapers, using electronic publishing techniques. Transfer Status: Transferable to CSU, see counselor for limitations.

JOURN 1B
Introduction to Desktop Publication
3.0 units
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Study and practice in writing, editing, designing and producing desktop publications, such as fliers, brochures, newsletters, small magazines and newspapers, using electronic publishing techniques. Transfer Status: Transferable to CSU, see counselor for limitations.

JOURN 5
Introduction to Public Relations
3.0 units
3 hours lecture.
Grading: letter grade.
Fundamentals of publicity and public relations for community groups and business organizations. Learn sources, techniques and outlets to gain publicity. Practice planning and preparing various types of publicity programs and press releases. Transfer Status: Transferable to CSU, see counselor for limitations.

JOURN 6AD
Working on the Magazine
3.0 units
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Learn principles of periodical publication and methods of editing, manufacturing and distributing magazines of every type. Includes practical training and instruction in editorial works, such as editing, writing, proofreading and headline writing. Attention is also given to production problems of the modern magazine. Transfer Status: Transferable to CSU, see counselor for limitations.

JOURN 10 (CAN JOUR 4)
Introduction to Mass Communication
3.0 units
3 hours lecture.
Grading: letter grade.
A study of the mass media and their influence on the individual and society. Designed for all majors. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

JOURN 20 (CAN JOUR 2)
Beginning Newswriting and Reporting
3.0 units
3 hours lecture.
Prerequisite: Eligibility for ENGL 1.
Grading: letter grade.
Gain experience gathering, writing and editing of news stories using computers. Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.

JOURN 25
Free-Lance Writing
3.0 units
3 hours lecture.
Grading: letter grade or credit/no credit
Training in the writing and marketing of newspaper and magazine feature stories. Transfer Status: Transferable to CSU, see counselor for limitations.

JOURN 35AD
Photojournalism
3.0 units
2 hours lecture, 3 hours laboratory
Grading: letter grade.
Instruction in basic and advanced photojournalism techniques. Practical experience in newspaper photography. Not open to students registered in or with credit in PHOT 35AD. Transfer Status: Transferable to CSU, see counselor for limitations.

JOURN 70AD
Work Experience Issues — Journalism
1.0 unit
1 hour lecture.
Corequisite: Enrollment in at least seven units including JOURN71AD, 72AD or 73AD and 70AD.
Grading: letter grade or credit/no credit
Seminar related to work experience. Discussion of work experience objectives, career goals, employment search, communication skills and problem solving. Transfer Status: Transferable to CSU, see counselor for limitations.

JOURN 71AD
Work Experience, Journalism
1.0 unit
4.2 hours laboratory
Corequisite: Enrollment in at least seven units including JOURN 70AD and 71AD.
Grading: letter grade or credit/no credit
Academic and vocational learning experiences through employment related to the journalism field. Transfer Status: Transferable to CSU, see counselor for limitations.

JOURN 72AD
Work Experience, Journalism
2.0 units
8.3 hours laboratory
Corequisite: Enrollment in at least seven units including JOURN 70AD and 72AD.
Grading: letter grade or credit/no credit
Academic and vocational learning experiences through employment related to the journalism field. Transfer Status: Transferable to CSU, see counselor for limitations.

JOURN 73AD
Work Experience, Journalism
3.0 units
12.5 hours laboratory
Corequisite: Enrollment in at least seven units including JOURN 70AD and 73AD.
Grading: letter grade or credit/no credit
Academic and vocational learning experiences through employment related to the journalism field. Transfer Status: Transferable to CSU, see counselor for limitations.

JOURN 80AD
Working on the Newspaper
3.0 units
1 hour lecture, 6 hours laboratory
Grading: letter grade.
Participate in the publication of the college newspaper. Transfer Status: Transferable to CSU, see counselor for limitations.

JOURN 85AD
Editor Training
3.0 units
1 hour lecture, 6 hours laboratory
Grading: letter grade.
Gain basic skills in editing a newspaper, including news judgment, directing reporters, copy editing, headline writing, page layout, selection and placement of photos.
and computerized type-setting for page make-up and paste-up. Designed for Viking student editors. Transfer Status: Transferable to CSU, see counselor for limitations.

**LEARNING ASSISTANCE**

**LEARN 11** 2.0 units
**College Learning Skills Workshop**
2 hours lecture.
Grading: credit/no credit
A comprehensive study and learning skills course. Topics include goal setting, commitment and motivation, time-management, learning styles, memory and concentration, study-reading techniques, critical thinking, listening skills, note-taking and test-taking. Provides small group interaction and individualized instruction to develop a support system and a mentor experience with the instructor. Emphasizes individual approaches to learning through diagnosis of difficulties and the development of an effective system of study. Transfer Status: Transferable to CSU, see counselor for limitations.

**LEARN 11A** 2.0 units
**College Learning Skills Workshop**
3 hours lecture.
Grading: credit/no credit
A comprehensive study and learning skills course. Includes goal setting, commitment and motivation, time-management, learning styles, memory and concentration, study-reading techniques, critical thinking, listening skills, note-taking and test-taking. Provides small group interaction and individualized instruction to develop a support system and a mentor experience with the instructor. Emphasizes individual approaches to learning through diagnosis of difficulties and the development of an effective system of study. Transfer Status: Transferable to CSU, see counselor for limitations.

**LEARN 20** 3.0 units
**Student-Athlete Success Training**
3 hours lecture.
Grading: letter grade.
Designed to assist the student-athlete in synthesizing his or her strengths in athletics with academic strengths for increased academic success. Emphasizes introducing the student-athlete to the expectations of higher education and developing techniques and skills necessary for achieving academic success. Develop awareness of and management strategies for the special personal and social demands of collegiate athletics. An intro to the regulations and expectations of athletic governing bodies (e.g., NCAA, COA). Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**LEARN 610** 0.0 units
**Basic Study Skills Laboratory**
3 hours laboratory
Grading: no grade awarded
An individualized, open-entry lab course in the Learning Center. A variety of basic learning and study skills, such as test-taking, time management and note-taking, are covered.

**LEARN 617** 0.0 units
**Basic Learning Skills Laboratory**
15 hours laboratory
Grading: no grade awarded
An individualized, open-entry lab course in basic learning skills for educationally disadvantaged occupational students. Designed to provide basic learning skills support to students enrolled in occupational courses.

**LEARN 810AD** 0.5 units
**Learning Skills**
0.3 hours lecture, 0.7 hours laboratory
Grading: credit/no credit
An open-entry Learning Center course providing individualized and small group instruction in basic learning and study skills, including time management, note-taking, memory techniques, textbook study and test-taking.

**LIBRARY**

**LIB 1** 1.0 unit
**Intro to Libraries/Information Resources**
1 hour lecture.
Grading: credit/no credit
Teaches basic college-level research skills necessary for effective use of traditional and new information resources. Emphasizes research strategies and evaluation of information resources. Covers the different levels, types and formats of information, including the Internet. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**LIB 2** 0.5 units
**Web Databases**
0.5 hours lecture.
Grading: credit/no credit
A hands-on intro to Web databases and their structures, this course emphasizes evaluation of information, search strategies and search techniques used to effectively access and retrieve information in the Web environment. Beneficial for students who wish to develop vital information technology skills for both academic and professional purposes. Transfer Status: Transferable to CSU, see counselor for limitations.

**LIB 3** 3.0 units
**Information Competency**
3 hours lecture.
Grading: letter grade or credit/no credit
Designed to help students become an information-literate world citizen in the new seamless and global Information World. Encompasses library literacy, information technology literacy and internet literacy. Encourages thought transformation, intelligent reasoning and a new understanding of the world, including an appreciation of cultural diversity. Contains a well-balanced structure in practices and theories, with lectures, forum discussion in-class and on-line, computer lab activities and written research assignments. In addition, there will be field trips to some of the most famous and richest libraries and museums in Southern California. Transfer Status: Transferable to CSU, see counselor for limitations.

**LIB 610** 0.0 units
**Basic Research Skills**
0.4 hours lecture.
Courses of Instruction

Grading: no grade awarded
offers an individualized open-entry lab course in the library. Covers a variety of basic research skills such as using the online library catalog, using periodical databases, using the Internet, documenting resources and building research strategies. Receive instruction via a series of research skill workshops or individual meetings with an instructor.

LIB  801  1.0 unit
Basic Information Research Skills
1 hour lecture.
Grading: credit/no credit
A preliminary course in finding, retrieving and evaluating information. Emphasizes locating information quickly and easily in the modern information environment. Intended for beginning college students, students in vocational programs who are not planning to transfer to a degree program soon and for any other student needing to develop basic information seeking skills.

LIB  810  1.0 unit
Web Health Resources
1 hour lecture.
Grading: credit/no credit
A hands-on intro to web health resources, this course acquaints students with health resources on the internet and via subscription. Beneficial for the general community and for students in the healthcare field who wish to expand their specialty knowledge base in order to gain a competitive edge and upgrade their job skills.

LIB  811  1.0 unit
Web Business Resources
1 hour lecture.
Grading: credit/no credit
A hands-on intro to web business resources, this course acquaints students with business resources on the Internet and via subscription. Beneficial to the general community and for students in the business and economics field who wish to expand their specialty knowledge base in order to gain a competitive edge and upgrade their job skills.

LIB  812  1.0 unit
Web Law Resources
1 hour lecture.
Grading: credit/no credit
A hands-on intro to web law resources, this course acquaints students with law resources on the internet and via subscription. Beneficial for the general community and for students in the law field who wish to expand their specialty knowledge base in order to gain a competitive edge and upgrade their job skills.

MACHT  50A  3.0 units
Machine Tool Operation and Practices
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Machine tool layout and job procedures, measuring instruments, cutting tools, materials, engine lathe, milling machine and drilling are discussed. Transfer Status: Transferable to CSU, see counselor for limitations.

MACHT  50B  3.0 units
Machine Tool Operation and Practices
2 hours lecture, 3 hours laboratory
Prerequisite: MACHT 50A
Grading: letter grade or credit/no credit
Machine tool layout and job procedures, precision measuring, thread cutting, special cutting tools, engine lathe, horizontal and vertical mills, drills, grinders, basic metallurgy, an intro to numerical control are discussed. Transfer Status: Transferable to CSU, see counselor for limitations.

MACHT  201  10.0 units
Machine Shop 1
5 hours lecture, 15 hours laboratory
Grading: letter grade or credit/no credit
Covers safety practices, measurement, tools and equipment, basic projects on the drill press, lathe and milling machine, related math and blueprint reading.

MACHT  202  10.0 units
Machine Shop 2
5 hours lecture, 15 hours laboratory
Prerequisite: MACHT 201
Grading: letter grade or credit/no credit
Covers safety practices, measuring tools, layout, intermediate projects on the lathe, milling machine, shaper, basic heat treating, related math and blueprint reading.

MACHT  203  10.0 units
Machine Shop 3
5 hours lecture, 15 hours laboratory
Prerequisite: MACHT 202
Grading: letter grade or credit/no credit
Covers safety practices, advanced machine work, including tool making, gear cutting, numerical control and heat treating, advanced math and theory.

MACHT  204  10.0 units
Machine Shop 4
5 hours lecture, 15 hours laboratory
Prerequisite: MACHT 203
Grading: letter grade or credit/no credit
Covers safety practices, advanced machine work, including tool making, gear cutting, numerical control and heat treating, advanced math and theory.

MACHT  250  5.0 units
CNC Manual Programming
4 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Emphasizes the operation, setup and shop floor programming of Computer Numerical Control, machining and turning centers. Provides a thorough understanding of all steps involved in writing programs for CNC machine tool. Covers all the basics of a CNC system, including its components, functions and suitable applications.

MACHT  260  5.0 units
CNC Graphics Programming
4 hours lecture, 3 hours laboratory
Prerequisite: MACHT 250
Grading: letter grade or credit/no credit
Covers CNC controls and MDI programming on industrial simulators and micro computers. Control-based programming includes geometry description, tool path driving, looping and patterns.
Courses of Instruction

MACHT 270AD 1.0 unit
Work Experience Issues — Machine Tool
1 hour lecture.
Corequisite: Enrollment in at least seven units including MACHT271AD, 272AD or 273AD and 270AD.
Grading: letter grade or credit/no credit
Seminar related to work experience. Discussion of work experience objectives, career goals, employment search, communication skills and problem solving.

MACHT 271AD 1.0 unit
Work Experience — Machine Tool
4.1 hours laboratory
Corequisite: Enrollment in at least seven units including MACHT270AD and 271AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment in work experience directly related to the industry.

MACHT 272AD 2.0 units
Work Experience — Machine Tool
8.3 hours laboratory
Corequisite: Enrollment in at least seven units including MACHT270AD and 272AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment in work experience directly related to the industry.

MACHT 273AD 3.0 units
Work Experience — Machine Tool
12.5 hours laboratory
Corequisite: Enrollment in at least seven units including MACHT270AD and 273AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment in work experience directly related to the industry.

MACHT 421AD 2.0 units
Machine Shop
6 hours laboratory
Grading: letter grade or credit/no credit
Tools and equipment, practical projects on the lathe, milling machines, shapers, drill press, grinders, etc. Safety practices are included.

MACHT 450 5.0 units
Advanced Graphics Programming
4 hours lecture, 3 hours laboratory
Prerequisite: MACHT250
Grading: letter grade.
An advanced study of modern industrial practices in CNC two and three dimensional graphics-based machine tool programming utilizing several different graphics-based controls and computer programming software. Study, develop and write detailed CNC/CAM part programs.

MACHT 460 5.0 units
Advanced CNC Language Programming
4 hours lecture, 3 hours laboratory
Prerequisite: MACHT250
Grading: letter grade or credit/no credit
An advanced study of CNC language programming for manufacturing operations. Primary emphasis is on the development of full three axis language-based programming skills utilizing APT, FAPT and DIE II languages. Utilizing the APT language, learn to describe complex part geometries and verify the accuracy of tool paths on computers and machine control systems. Further, program complex CNC part programs with contours and sculptured surfaces and develop different cutter paths.

 MANAGEMENT

MGMT 49A 3.0 units
Introduction to Management
3 hours lecture.
Grading: letter grade.
An intro to management with an emphasis on first-line supervision and employer-employee relationships. Transfer Status: Transferable to CSU, see counselor for limitations.

MGMT 49B 3.0 units
Introduction to Management
3 hours lecture.
Grading: letter grade.
A study of the applications of management principles and supervisory techniques. Special emphasis is on problems related to first-line supervision and employer-employee relationships. Transfer Status: Transferable to CSU, see counselor for limitations.

MGMT 58 3.0 units
Management Skills for Women Supervisors
3 hours lecture.
Grading: letter grade.
Presents practical case applications, concepts, techniques, skills and practice sessions. Focuses on problems that may arise for women supervising men, as well as other women, and problems faced by an employee moving from the labor force to a supervisory position carrying the new responsibilities of a member of the management team. Not open for credit to students registered in or with credit in INDRL58. Transfer Status: Transferable to CSU, see counselor for limitations.

MGMT 60 3.0 units
Management & Organization Behavior
3 hours lecture.
Grading: letter grade or credit/no credit
A comprehensive approach to establishing and maintaining a management by objectives program covering a body of tested management principles and techniques. Transfer Status: Transferable to CSU, see counselor for limitations.

MGMT 80 3.0 units
Small Business Entrepreneurship
3 hours lecture.
Grading: letter grade.
Learn to organize and profitably operate a small business enterprise in today’s economic climate, emphasizing the development of a coherent business plan. Transfer Status: Transferable to CSU, see counselor for limitations.

MGMT 270AD 1.0 unit
Work Experience Issues — Bus & Management
1 hour lecture.
Corequisite: Enrollment in at least seven units including MGMT 271AD, 272AD or 273AD and 270AD.
Grading: letter grade or credit/no credit
Discussion of work experience objectives, career goals, employment adjustments and problem areas encountered on the job.
Courses of Instruction

MGMT 271AD 1.0 unit
Work Experience — Business & Management
4.1 hours laboratory
Corequisite: Enrollment in at least seven units including MGMT 270AD and 271AD.
Grading: letter grade or credit/no credit
An extension of vocational learning through employment directly related to one's occupational goal.
One unit of credit shall be granted for every 75 hours per semester. Maximum of 12 units.

MGMT 272AD 2.0 units
Work Experience — Business & Management
8.3 hours laboratory
Corequisite: Enrollment in at least seven units including MGMT 270AD and 272AD.
Grading: letter grade or credit/no credit
An extension of vocational learning through employment directly related to one's occupational goal.
One unit of credit shall be granted for every 75 hours per semester. Maximum of 12 units.

MGMT 273AD 3.0 units
Work Experience — Business & Management
12.5 hours laboratory
Corequisite: Enrollment in at least seven units including MGMT 270AD and 273AD.
Grading: letter grade or credit/no credit
An extension of vocational learning through employment directly related to one's occupational goal.
One unit of credit shall be granted for every 75 hours per semester. Maximum of twelve units.

MARKETING

MKTG 40 3.0 units
Salesmanship
3 hours lecture.
Grading: letter grade or credit/no credit
Designed for those looking at a career in professional sales or as a refresher for current sales professionals.
Helps develop an understanding of the roles and functions of professional selling in the marketing of goods and services, with an emphasis on the development of strong business relationships. Transfer Status: Transferable to CSU, see counselor for limitations.

MKTG 41 3.0 units
Advertising
3 hours lecture.
Grading: letter grade or credit/no credit
Designed for those looking at a career in marketing/advertising or as a refresher for current frontline marketing professionals. Develop an understanding of the role of promotion in the marketing mix and focus on the specific functions of integrated marketing communication in the marketing of goods and services. Transfer Status: Transferable to CSU, see counselor for limitations.

MKTG 42 3.0 units
Retailing Principles and Practices
3 hours lecture.
Grading: letter grade.

Study the principles, practices, policies and organization of businesses engaged in retail merchandising. Transfer Status: Transferable to CSU, see counselor for limitations. Course articulated with LBUSD.

MKTG 47 3.0 units
Essentials of Marketing
3 hours lecture.
Grading: letter grade.
Deals with the importance, analysis, processes and institutions concerned with the distribution of products and services from origin to consumption, as well as trends in current marketing methods and policies. Transfer Status: Transferable to CSU, see counselor for limitations.

MKTG 270AD 1.0 unit
Work Experience Issues — Marketing
1 hour lecture.
Corequisite: Enrollment in at least seven units including MKTG 271AD, 272AD or 273AD and 270AD.
Grading: letter grade or credit/no credit
Discussion of work experience objectives, career goals, employment adjustments and problem areas encountered on the job.

MKTG 271AD 1.0 unit
Work Experience — Marketing
4.1 hours laboratory
Corequisite: Enrollment in at least seven units including MKTG 270AD and 271AD.
Grading: letter grade or credit/no credit
An extension of vocational learning through employment directly related to one's occupational goal.
One unit of credit shall be granted for every 75 hours per semester. Maximum of twelve units.

MKTG 272AD 2.0 units
Work Experience — Marketing
8.3 hours laboratory
Corequisite: Enrollment in at least seven units including MKTG 270AD and 272AD.
Grading: letter grade or credit/no credit
An extension of vocational learning through employment directly related to one's occupational goal.
One unit of credit shall be granted for every 75 hours per semester. Maximum of twelve units.

MKTG 273AD 3.0 units
Work Experience — Marketing
12.5 hours laboratory
Corequisite: Enrollment in at least seven units including MKTG 270AD and 273AD.
Grading: letter grade or credit/no credit
An extension of vocational learning through employment directly related to one's occupational goal.
One unit of credit shall be granted for every 75 hours per semester. Maximum of twelve units.

MATH 28 (CAN MATH 4) 3.0 units
Mathematics for Elementary Teaching I
3 hours lecture, 1 hour laboratory
Prerequisite: MATH 130 or one year of high school intermediate algebra with a grade of B or better as reflected in the second semester grade and MATH 120 or 1 year high school geometry.
Recommended Preparation: Eligibility for ENGL 1
Grading: letter grade.
One of several courses designed for prospective elementary teachers. Includes pattern recognition, problem solving, sets, functions, numeration systems, number theory, models and algorithms for operations with whole numbers, integers, rational numbers and decimals. Emphasizes the problem solving process. Incorporates group activities and exploration of topics with manipulatives. Writing is emphasized throughout the course. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MATH 29 3.0 units
Math for Elementary Teaching II
3 hours lecture, 1 hour laboratory
Prerequisite: MATH 28 and 120 or one year of high school geometry.
Grading: letter grade.
Designed for prospective elementary teachers. Includes basic geometric vocabulary and notation, constructions, congruence, similarity, measurement, the Pythagorean Theorem, motion geometry and tessellations. Emphasizes the problem solving process. Incorporates group activities and exploration of topics through the use of manipulatives and a geometry drawing utility. Writing is emphasized throughout the course. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MATH 36 (CAN MATH 2) 3.0 units
The Nature of Mathematics
3 hours lecture, 1 hour laboratory
Prerequisite: MATH 130 or one year high school intermediate algebra with a grade of B or better as reflected by the second semester grade and MATH 120 or one year high school geometry.
Grading: letter grade.
A general education course for students not majoring in science and math and strongly recommended for prospective elementary teachers. This activity-based course covers such topics as set theory, combinations, permutations, logic, probability and statistics. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MATH 37 (CAN MATH 12) 3.0 units
Finite Mathematics
3 hours lecture.
Prerequisite: MATH 130 or one year high school intermediate algebra with a grade of B or better as reflected by the second semester grade or qualification through the math assessment process.
Grading: letter grade.
Includes probability, expectation, linear programming, matrix methods for linear systems and other topics. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MATH 37H 3.0 units
Honors Finite Mathematics
3 hours lecture.
Prerequisite: MATH 130 or high school intermediate algebra with a grade of B or better as reflected by the second semester grade, or qualification through the math assessment process and qualification for the Honors Program.
Grading: letter grade.
Selected topics from finite math, including probability, expectation, linear programming, matrix methods for linear systems and other topics. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MATH 40 (CAN MATH 8) 3.0 units
Trigonometry
3 hours lecture.
Prerequisite: MATH 130 or one year high school intermediate algebra with a grade of B or better as reflected by the second semester grade and MATH 120 or one year high school geometry.
Grading: letter grade.
Plane trigonometry, including definitions of the curricular functions, properties of functions, inverse functions, identities and other inter-relationships, graphing, complex numbers and applications to right and oblique triangles. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MATH 45 (CAN MATH 10) 3.0 units
College Algebra
3 hours lecture.
Prerequisite: MATH 130 or one year high school intermediate algebra with a grade of B or better as reflected by the second semester grade or qualification through the math assessment process.
Grading: letter grade.
Advanced algebra topics, including functions, graphing, inverse functions and systems of equations. Students preparing for MATH 60 should take MATH 50 instead. Not open for credit to students registered in or with credit in MATH 50. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MATH 47 (CAN MATH 34) 3.0 units
Calculus for Business
3 hours lecture.
Prerequisite: MATH 45 or 50
Grading: letter grade or credit/no credit
Includes differentiation of functions of one and several variables; optimization methods; integration of functions of one variable; exponential and logarithmic functions; emphasizes applications to business and economics. Not open for credit to students registered in or with credit in MATH 60. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MATH 50 (CAN MATH 16) 4.0 units
Precalculus Math
4 hours lecture.
Prerequisite: MATH 40 or high school trigonometry with a grade of B or better as reflected by the second semester grade.
Grading: letter grade.
Preparation for calculus. Includes polynomial, rational, exponential, logarithmic and trigonometric functions and their graphs; applications of trigonometry; systems of equations and inequalities; sequences and series; and topics from analytic geometry. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MATH 55A 3.0 units
Discrete Mathematics I
3 hours lecture.
Prerequisite: MATH 50
Grading: letter grade.
First of two semesters of discrete math for computer related disciplines: Topics include logic, truth tables, elementary set theory, proof techniques and
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MATH 55B 3.0 units
Discrete Mathematics II
3 hours lecture.
Prerequisite: MATH 55A
Grading: letter grade.
Second of two semesters of discrete mathematics needed in computer related disciplines: Topics include graph theory, Boolean algebra, algebraic structures and linear algebra. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MATH 60 (CAN MATH 18) 5.0 units
First Calculus Course
5 hours lecture.
Prerequisite: MATH 50 or one year high school precalculus with a grade of B or better as reflected in the second semester grade.
Grading: letter grade.
Topics include limits, derivative and integral, theory and applications, and differentiation and integration of sines and cosines. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MATH 70 (CAN MATH 20) 5.0 units
Second Calculus Course
5 hours lecture.
Prerequisite: MATH 60.
Grading: letter grade.
Topics include transcendental functions, methods of integration, plane analytic geometry, polar coordinates and infinite series. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MATH 80 (CAN MATH 22) 5.0 units
Third Calculus Course
5 hours lecture.
Prerequisite: MATH 70.
Grading: letter grade.
Topics include vector calculus, analytic geometry in three dimensions, partial differentiation and multiple integration. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MATH 84 4.0 units
Intro Differential Eqs and Linear Alg
4 hours lecture, 1 hour laboratory
Prerequisite: MATH 80 (may be taken concurrently)
Grading: letter grade.

MATH 110 4.0 units
First Course in Algebra
5 hours lecture.
Prerequisite: MATH 815 or qualification through the math assessment process.
Recommended Preparation: Students who have not met the reading proficiency requirement for graduation are advised to take a reading course before taking this algebra course.
Grading: letter grade or credit/no credit
Includes operations with polynomials and rational expressions; solving linear equations and inequalities; solving quadratic equations by factoring, completing the square and the quadratic formula; graphing; properties of exponents and radical expressions; solving rational and radical equations; solving systems of linear equations; and applications. May receive credit for either MATH 110 or 110A and 110B.

MATH 110A 3.0 units
First Course in Algebra
3 hours lecture.
Prerequisite: MATH 815 or qualification through the math assessment process.
Recommended Preparation: Students who have not met the reading proficiency requirement for graduation are advised to take a reading course before taking this algebra course.
Grading: letter grade or credit/no credit
The first of a two semester sequence of the first course in algebra. Topics include review of integers, exponents, operations with polynomial expressions, solving linear equations, factoring and solving quadratic equations by factoring. The math requirement for an Associate degree is not satisfied by Math 110A alone. May receive credit for either MATH 110 or 110A and 110B.

MATH 110B 3.0 units
First Course in Algebra
3 hours lecture.
Prerequisite: MATH 110A
Recommended Preparation: Students who have not met the reading proficiency requirement for graduation are advised to take a reading course before taking this algebra course.
Grading: letter grade or credit/no credit
The second of a two semester sequence of the first course in algebra. Topics include rational expressions and equations, equations and inequalities in two variables, graphing, systems of linear equations and inequalities, roots and radicals, solving quadratic equations by methods other than factoring and applications. May receive credit for either MATH 110 or 110A and 110B.

MATH 120 3.0 units
Geometry
3 hours lecture.
Prerequisite: MATH 110 or 110B or one year high school algebra with a grade of B or better as reflected by the second semester grade or qualification through the math assessment process.
Grading: letter grade or credit/no credit
A traditional Euclidean geometry course covering such topics as deductive reasoning, basic postulates and theorems, congruency, similarity, constructions, area, and volume.

MATH 130 4.0 units
Intermediate Algebra
5 hours lecture.
Prerequisite: MATH 110 or 110B or 880 or one year high school algebra with a grade of B or better as reflected by the second semester grade or qualification through the math assessment process.
Recommended Preparation: Students who have not met the reading proficiency requirement for graduation are advised to take a reading course before taking this algebra course.
Grading: letter grade or credit/no credit
Continues the study of algebra in preparation for transfer level courses. Includes polynomial, algebraic, quadratic, exponential and logarithmic functions; graphing; systems of equations and inequalities; factoring; rational expressions and equations; and roots, radicals and complex numbers.

**MATH 805** 3.0 units
Modern Arithmetic
4 hours lecture.
Grading: credit/no credit
Basic arithmetic covering operations with whole numbers, fractions and decimals; ratios, proportions and percents; and applications of arithmetic to common problems. Not applicable for degree credit.

**MATH 815** 3.0 units
Preparation for Algebra
4 hours lecture.
Grading: credit/no credit
Topics include order of operations, operations with integers, solving linear equations, intro to graphing, operations with polynomials and an intro to the properties of exponential expressions. Not applicable for degree credit.

**MATH 880** 4.0 units
Review of Basic Algebra
5 hours lecture
Recommended Preparation: A previous course in algebra.
Grading: credit/no credit
A review of elementary algebra designed as preparation for intermediate algebra.

**MEDICAL ASSISTING**

**MA 270** 3.0 units
Introduction to Medical Assisting
2 hours lecture, 3 hours laboratory
Grading: letter grade.
Prerequiste: MA 270
Presents clinical procedures utilized by medical assistants. Includes the beginning level skills of asepsis, vital signs, health history, office emergencies, patient education and basic pharmacology. Typically offered for nine weeks. Course articulated with LBUSD.

**MA 280** 3.0 units
Health Care Clinical Procedures
2 hours lecture, 3 hours laboratory
Prerequisite: MA 270
Grading: letter grade.
Develop the knowledge and skills required to assist the physician with performing diagnostic tests and to assist with physical therapy. Typically offered for nine weeks.

**MA 282** 3.0 units
Advanced Health Care Clinical Procedures
2 hours lecture, 3 hours laboratory
Prerequisite: MA 280
Grading: letter grade.
An advanced level of skills including: psychosocial skills, medication administration, math for medication administration, electrocardiograph techniques, venipuncture and other health care office clinical skills.

**MA 284AB** 2.0 units
Medical Assisting Specialized Practicum
6 hours laboratory
Prerequisite: MA 282 or administrative options.
Administrative options may be concurrent.
Grading: credit/no credit
Work experience in selected health care offices and/or clinics. Typically offered for nine weeks.

**MA 286** 4.0 units
Medical Assisting Combined Practicum
12 hours laboratory
Prerequisite: MA 282 and administrative options.
Administrative options may be concurrent.
Grading: credit/no credit
Work experience in selected health care offices and/or clinics. Will have both administrative and clinical duties. Typically offered for nine weeks.

**MA 288** 1.0 unit
Medical Assisting Practicum Seminar
1 hour lecture.
Corequisite: MA 284AB or 286
Grading: letter grade.
Learn an advanced level of skills and theory, including office emergencies, professional office conduct, health care office management, resume writing and techniques utilized in job seeking. Typically offered for nine weeks.

**MA 290** 3.0 units
Basic Medical Insurance Billing
2 hours lecture, 3 hours laboratory
Grading: letter grade.
Grading: letter grade or credit/no credit
Develop knowledge of medical insurance billing requirements and skills necessary to successfully file claims and effect collection of payment for medical services given.

**MULTIMEDIA TECHNOLOGY**

**MMT 202** 1.0 unit
Principles of Interactive Design
1 hour lecture.
Grading: letter grade or credit/no credit
Corequisite: MA 284AB or 286
An overview of essential components required for successful multimedia applications in education, information and training.

**MUSIC**

**MUSIC 1** (Part of CAN MUS SEQUENCE A) 3.0 units
Music Theory
3 hours lecture, 1 hour laboratory
Corequisite: MUSIC 5AD
Recommended Preparation: MUSIC 31 or 6
Grading: letter grade or credit/no credit
Diatonic harmony, primary and secondary triads, non-harmonic tones, dominant seventh chords, four-part writing, figured bass, dictation and sight singing. Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.

**MUSIC 2** (Part of CAN MUS SEQUENCE A) 3.0 units
Music Theory
3 hours lecture, 1 hour laboratory
Corequisite: MUSIC 9AD
Grading: letter grade or credit/no credit
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Modulation, secondary dominants, altered chords, harmonic analysis, dictation, sight singing and keyboard application. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 3** 3.5 units

Music Theory
2 hours lecture, 5 hours laboratory
Prerequisite: MUSIC 2
Grading: letter grade or credit/no credit
Tonal counterpoint, analysis, techniques, dictation, sight singing and keyboard application are covered. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 4** 3.0 units

Music Theory
3 hours lecture, 1 hour laboratory
Prerequisite: MUSIC 2
Corequisite: MUSIC 10AD
Grading: letter grade or credit/no credit
Harmonic practices of the 19th and early 20th centuries, dictation, sight singing and keyboard application are covered. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 5AD** 2.0 units

Musicianship 1
2 hours lecture, 1 hour laboratory
Recommended Preparation: Experience performing music and/or MUSIC 31
Grading: letter grade or credit/no credit
Covers the techniques of musical dictation and sight-singing with basic, tonal materials. Covers scales, intervals, basic chord structures and harmonic-melodic-rhythmic dictation. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 6** 3.0 units

Introduction to Music Theory
3 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
A study of musical notation and principles of melody, harmony and form, as well as an intro to sight singing and ear training. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 7AB** 2.0 units

Elementary Voice
1 hour lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Problems of tone production, breathing, diction, repertoire and song interpretation are studied. Designed to meet the voice requirements of music majors. Development of self-confidence through class performance. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 8AD** 2.0 units

Advanced Voice
1 hour lecture, 3 hours laboratory
Recommended Preparation: MUSIC 7AB
Grading: letter grade or credit/no credit
Advanced study of vocal production, song interpretation and performance techniques. Repertoire includes English and Italian songs. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 9AD** 2.0 units

Musicianship 2
2 hours lecture, 1 hour laboratory
Prerequisite: At least one semester of MUSIC 5AD
Grading: letter grade or credit/no credit
Covers the techniques of musical dictation and sight-singing with intermediate, tonal materials. Includes intermediate scales, intervals, chord structures and harmonic-melodic-rhythmic dictation. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 10AD** 2.0 units

Musicianship 3
2 hours lecture, 1 hour laboratory
Prerequisite: At least two units of MUSIC 9AD
Grading: letter grade or credit/no credit
Covers the techniques of musical dictation and sight-singing with advanced, tonal materials. Covers advanced scales, intervals, chord structure and harmonic-melodic-rhythmic dictation. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 11AD** 1.0 unit

Long Beach City College Viking Chorale
2 hours lecture, 4 hours laboratory
Recommended Preparation: Prior vocal experience
Grading: letter grade or credit/no credit
Study and performance of standard choral literature. A considerable number of public performances are given each semester and attendance is required for a grade. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 12AD** 1.0 unit

Long Beach City College Viking Singers
2 hours lecture, 4 hours laboratory
Prerequisite: Audition
Grading: letter grade or credit/no credit
Select ensemble with performances throughout the year. All periods and styles of choral music, especially classical chamber literature, are performed. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 13AD** 1.0 unit

College Symphony Orchestra
2 hours lecture, 3 hours laboratory
Recommended Preparation: Prior instrumental experience
Grading: letter grade or credit/no credit
Study of orchestral techniques through reading, rehearsal and performance of standard literature. Participation in performances is required. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 14AD** 1.0 unit

Orchestra
1 hour lecture, 3 hours laboratory
Recommended Preparation: Prior instrumental experience
Grading: letter grade or credit/no credit
Study of orchestral techniques through reading, rehearsal and performance of orchestral repertoire. Transfer Status: Transferable to UC/CSU, see counselor for limitations.
MUSIC 15AD 1.0 unit
Chamber Orchestra
1 hour lecture, 3 hours laboratory
Recommended Preparation: Prior instrumental experience.
Grading: letter grade or credit/no credit
Consists of reading, study and performance of standard repertoire for the small orchestra. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 17AD 1.0 unit
Applied Music
6 hours laboratory
Recommended Preparation: Prior vocal or instrumental experience.
Grading: letter grade or credit/no credit
For the music major privately studying a keyboard instrument, voice, guitar or any standard band or orchestra instrument. Includes listening to and performing representative literature from various periods and composers. The level of proficiency is determined by faculty adjudication. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 19AD 1.0 unit
Beginning Instruments
1 hour lecture, 3 hours laboratory
Recommended Preparation: Prior vocal experience.
Grading: letter grade or credit/no credit
Instruction in elementary and intermediate principles of playing string, woodwind, brass and percussion instruments. Not designed for the study of the student’s major instrument. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 20AD 1.0 unit
LBCC Southland Chorale
2 hours lecture, 4 hours laboratory
Recommended Preparation: Prior vocal experience.
Grading: letter grade or credit/no credit
The study and performance styles of choral, orchestra choral works, light opera and musical theatre. Involves participation in all concerts and performances. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 21AD 1.0 unit
LBCC Viking Women’s Choir
1 hour lecture, 2 hours laboratory
Recommended Preparation: Prior vocal experience.
Grading: letter grade or credit/no credit
The study and performance of choral literature from all musical periods and styles for treble voices. Participation involves concerts, festivals and tour. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 22AD 1.0 unit
LBCC Viking Men’s Choir
1 hour lecture, 2 hours laboratory
Recommended Preparation: Prior vocal experience.
Grading: letter grade or credit/no credit
The study and performance of choral literature from all musical periods and styles for male voices. Participation involves concerts, festivals and tour. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 25AD 1.0 unit
Chamber Music Ensemble
1 hour lecture, 3 hours laboratory
Recommended Preparation: Prior vocal or instrumental experience.
Grading: letter grade or credit/no credit
The study and performance of music for chamber ensembles. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 26AD 1.0 unit
String Ensemble
1 hour lecture, 3 hours laboratory
Recommended Preparation: Prior instrumental experience.
Grading: letter grade or credit/no credit
Reading, study and the performance of literature associated with the string orchestra. Music from the Baroque, Classical and Romantic periods will be highlighted. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 27AD 1.0 unit
Brass Ensemble
1 hour lecture, 3 hours laboratory
Recommended Preparation: Prior instrumental experience.
Grading: letter grade or credit/no credit
The brass ensemble rehearses and performs music of various periods for this particular medium. The group can range from a quintet to large double brass choirs. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 30A (Part of CAN MUS SEQUENCE B) 3.0 units
Music History/Antiquity to 1800
3 hours lecture, 1 hour laboratory
Recommended Preparation: Prior vocal or instrumental experience.
Grading: letter grade or credit/no credit
A survey of music history and literature from antiquity to 1800, including cultural, intellectual and social influences. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 30B (Part of CAN MUS SEQUENCE B) 3.0 units
Music History and Literature
3 hours lecture, 1 hour laboratory
Recommended Preparation: Prior vocal or instrumental experience.
Grading: letter grade or credit/no credit
A survey of music history and literature from 1750 to the present, including cultural, intellectual and social influences. Offered Fall semester only. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 31 3.0 units
Music Fundamentals
3 hours lecture.
Grading: letter grade or credit/no credit
An intro experience in the elements of music, stressing an understanding of pitch and rhythm and their application to the creative process of personal expression. Recommended for elementary credential candidates. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 33A 3.0 units
Intercultural Music
3 hours lecture.
Grading: letter grade or credit/no credit
A survey of vernacular and popular music of the American Indian culture as it impacts upon American jazz and European music. Primarily emphasizes those forms passed on by means of oral tradition, hearing,
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ritual and anthropological recordings. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 33B 3.0 units

Intercultural Music
3 hours lecture.
Grading: letter grade or credit/no credit
A survey of vernacular and popular music of the African Americans and Mid-Eastern Americans from their historical roots to the present. Analysis of musical traditions from a technical and cultural perspective; and sequential development of listening and descriptive skills through a variety of media including films, recordings and computer-assisted instruction. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 33C 3.0 units

Intercultural Music
3 hours lecture.
Grading: letter grade or credit/no credit
A survey of vernacular and popular music of the Asian Americans from their historical roots to the present. A broad approach to musical literature and its place in the cultural development of Western civilization. Designed for the non-major. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 33D 3.0 units

Intercultural Music
3 hours lecture.
Grading: letter grade or credit/no credit
A survey of vernacular and popular music of the European Americans, African Americans, Chicano/Latino Americans, Asian Americans and Mid-Eastern Americans from their historical roots to the present. Analysis of musical traditions from a technical and cultural perspective; and sequential development of listening and descriptive skills through a variety of media including films, recordings and computer-assisted instruction. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 35 3.0 units

Music of Multicultural America
3 hours lecture.
Grading: letter grade or credit/no credit
A comparative and integrative study of the multicultural musical styles of the United States, based on the fundamental principles of music appreciation. Includes the music of native Americans, European Americans, African Americans, Chicano/Latino Americans, Asian Americans and Mid-Eastern Americans from their historical roots to the present. Analysis of musical traditions from a technical and cultural perspective; and sequential development of listening and descriptive skills through a variety of media including films, recordings and computer-assisted instruction. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 38AD 1.0 unit

Wind Ensemble
2 hours lecture, 5 hours laboratory
Recommended Preparation: Prior instrumental experience.
Grading: letter grade or credit/no credit
Involves the study and performance of music composed for small wind groups, as well as unusual combinations of wind and percussion instruments, usually with one player per part. The musical literature represented includes the baroque, classical, romantic and twentieth century. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 40 3.0 units

Appreciation of Music
3 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
A broad approach to musical literature and its place in the cultural development of Western civilization. Designed for the non-major. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 40H 3.0 units

Honors Appreciation of Music
3 hours lecture, 1 hour laboratory
Prerequisite: Qualification for the Honors Program.
Grading: letter grade or credit/no credit
A broad approach to musical literature and its place in the cultural development of Western civilization. Designed for non-majors. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 41AD 1.0 unit

College Chorus
1 hour lecture, 3 hours laboratory
Recommended Preparation: Prior vocal experience
Grading: letter grade or credit/no credit
Study of vocal techniques and music reading through performance of choral music. Participation in a very limited number of performances each semester is required. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 42AD 1.0 unit

Professional Advanced Vocal Ensembles
1 hour lecture, 3 hours laboratory
Recommended Preparation: MUSIC 78AD and/or 44AD
Grading: letter grade or credit/no credit
For advanced ensemble and solo singers combining the technology of computers, synthesizers and modern recording facilities. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 44AD 1.0 unit

The Evening Jazz Choir
2 hours lecture, 4 hours laboratory
Recommended Preparation: Prior vocal experience
Grading: letter grade or credit/no credit
Jazz standards and pop classics performed and studied by this choir. Comprised of people within the community who usually work full-time in a non-related occupation and can rehearse and perform during the evening. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 45AD 1.0 unit

Gospel Music
2 hours lecture, 3 hours laboratory
Grading: letter grade.
Study and performance of gospel music including traditional, historic, contemporary, praise and worship. Emphasizes vocal techniques, genre and the origin of gospel music. Key figures in the field will be studied. Transfer Status: Transferable to CSU, see counselor for limitations.

**MUSIC 46AD** 1.0 unit

**College Symphonic Band**
2 hours lecture, 4 hours laboratory
Recommended Preparation: Prior instrumental experience.
Grading: letter grade or credit/no credit
A performance organization dedicated to the production of a wide variety of musical literature and an association with professional soloists. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 47AD** 1.0 unit

**Wind Symphony**
1 hour lecture, 3 hours laboratory
Recommended Preparation: Prior instrumental experience.
Grading: letter grade or credit/no credit
A performance organization which seeks out, prepares and performs wind band literature from all periods and musical styles. While all repertoire is considered, the majority of music performed is somewhat more traditional in nature and tends to be focused more on mainstream 20th Century literature composed and transcribed for wind instruments. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 48AD** 1.0 unit

**Recording Band**
4 hours laboratory
Recommended Preparation: Prior instrumental experience.
Grading: letter grade or credit/no credit
An opportunity to experience a professional recording situation, such as click-tracks, overdubbing and the study of microphone capabilities for live recording sessions. Learn recording techniques. Both the traditional and commercial music student will benefit. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 49AD** 1.0 unit

**Viking Show Band**
2 hours lecture, 4 hours laboratory
Recommended Preparation: Prior instrumental experience.
Grading: letter grade or credit/no credit
Perform for all home football and basketball games, as well as pep rallies, performances on campus and at a variety of special activities in and around the community. Transfer Status: Transferable to CSU, see counselor for limitations.

**MUSIC 50AD** 1.0 unit

**Performance Showcase/Ensemble Workshop**
1 hour lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
An ensemble that performs arrangements in various styles and develops sight-reading skills. In addition, the ensemble interacts as small groups to perform in concert at the conclusion of the semester. Transfer Status: Transferable to CSU, see counselor for limitations. Course articulated with LBUSD.

**MUSIC 51A** 2.0 units

**Beginning Piano 1**
2 hours lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Basic keyboard technique, major and minor scales, sight reading and technical skills are encountered in beginning piano music. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 51B** 2.0 units

**Beginning Piano 2**
2 hours lecture, 2 hours laboratory
Prerequisite: MUSIC 51A
Grading: letter grade or credit/no credit
A continuation of technical skills, technical studies, sight reading and piano literature from intermediate to advanced levels. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 52AD** 2.0 units

**Advanced Piano**
1 hour lecture, 3 hours laboratory
Prerequisite: MUSIC 51B
Grading: letter grade or credit/no credit
Beginning study of the guitar, using a classical approach to basic technique, musicianship and repertory. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 55AD** 1.0 unit

**Guitar**
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Advanced levels.

**MUSIC 58AD** 1.0 unit

**College Philharmonia**
2 hours lecture, 3 hours laboratory
Recommended Preparation: Prior successful orchestral experience.
Grading: letter grade.
Study and performance of the orchestral repertory and works by contemporary composers. Emphasizes ensemble techniques including articulation, balance, phrasing, expression and accompanying. Two concerts minimum per semester. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**MUSIC 59AD** 2.0 units

**Digital Recording and Sampling Technique**
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Deals with the study of the digital recording and sampling techniques used in contemporary music and film scoring (i.e., re-mixes, rap music, pop, contemporary jazz, rhythm and blues, sound effects, etc.). Transfer Status: Transferable to CSU, see counselor for limitations.

**MUSIC 60AD** 2.0 units

**Pro Tools (Digital Audio Recording/Edit)**
2 hours lecture, 2 hours laboratory
Grading: letter grade.
Provides instruction on the functions and operations of Pro Tools software and a general overview of Pro Tools related hardware. Provides hands-on experience through...
Courses of Instruction

‘real-world’ related assignments for students to record, edit and mix digital audio in a Macintosh computer environment. Although the Pro Tools systems vary in specification, features and price, the user interface for all systems is consistent and enables the student to translate learned skills to any high-end professional Digital Audio Workstation. Transfer Status: Transferable to CSU, see counselor for limitations.

MUSIC 61AD 1.0 unit
Music Mastering
1 hour lecture, 2 hours laboratory
Recommended Preparation: MUSIC 95
Grading: letter grade or credit/no credit
A hands-on class focusing on the processing of master mixdowns in preparation for the manufacturing of CD’s, cassettes and LP’s. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 62AD 1.0 unit
Commercial Guitar/Bass Stu (Beginning)
1 hour lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
A study and practice of the practice of the beginning techniques of guitar and bass as they are used and performed in studio and live performance. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 63AD 1.0 unit
Commercial Guitar/Bass Studies (Interm)
1 hour lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
A study and practice of the intermediate techniques of the guitar and bass as they are used and performed in the studio and live performances. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

MUSIC 65AD 2.0 units
Advanced-Pro Recording Techniques
1 hour lecture, 4 hours laboratory
Prerequisite: MUSIC 96AD
Recommended Preparation: Audition
Grading: letter grade or credit/no credit
A hands-on approach into the operation and maintenance of a 24-track recording studio. Transfer Status: Transferable to CSU, see counselor for limitations.

MUSIC 66AD 2.0 units
Studio Mixdown Techniques
1 hour lecture, 3 hours laboratory
Prerequisite: MUSIC94
Recommended Preparation: Prior vocal or instrumental experience.
Grading: letter grade or credit/no credit
A hands-on approach into the complex techniques of the multi-track studio mixdown process, including the use of outboard gear, the placement of recorded components within the stereo spectrum, the aesthetic considerations in the final mix and automated mixing. Transfer Status: Transferable to CSU, see counselor for limitations.

MUSIC 67AD 2.0 units
Studio Design
1 hour lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
The study of recording studio design based on the evaluation of acoustical specifications, equipment needs and industry standards, space availability, budget requirements and manufacturer equipment specifications. Transfer Status: Transferable to CSU, see counselor for limitations.

MUSIC 68 2.0 units
Basic Audio Theory
2 hours lecture.
Grading: letter grade or credit/no credit
An intro to the theoretical and practical aspects of recording studio technology. Transfer Status: Transferable to CSU, see counselor for limitations.

MUSIC 69A 2.0 units
Analysis of Music Video
2 hours lecture.
Grading: letter grade or credit/no credit
An in-depth exam into the development of different styles of music videos and their relationship to current music videos in today’s music industry. Transfer Status: Transferable to CSU, see counselor for limitations.

MUSIC 69B 2.0 units
Analysis of Music Video
2 hours lecture.
Grading: letter grade or credit/no credit
An in-depth exam into the development of different styles of music videos and their relationship to current music videos in today’s music industry. Transfer Status: Transferable to CSU, see counselor for limitations.

MUSIC 69C 2.0 units
Analysis of Music Video
2 hours lecture.
Grading: letter grade or credit/no credit
An in-depth exam into the development of different styles of music videos and their relationship to current music videos in today’s music industry. Transfer Status: Transferable to CSU, see counselor for limitations.

MUSIC 69D 2.0 units
Analysis of Music Video
2 hours lecture.
Grading: letter grade or credit/no credit
An in-depth exam into the development of different styles of music videos and their relationship to current music videos in today’s music industry. Transfer Status: Transferable to CSU, see counselor for limitations.

MUSIC 70AD 2.0 units
Studio Maintenance
1 hour lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
A hands-on approach to the techniques necessary for successful performance in the maintenance of the recording studio and sound reinforcement equipment, including troubleshooting, cable connections, tape deck calibration and equipment design and construction. Transfer Status: Transferable to CSU, see counselor for limitations.

MUSIC 71AD 2.0 units
Introduction to Music Technology
1 hour lecture, 4 hours laboratory
Grading: letter grade or credit/no credit
Designed to acquaint students to the elements needed to create music within today’s industry: traditional music notation, music processing with computers and computer controlled music. Transfer Status: Transferable to CSU, see counselor for limitations.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
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<tbody>
<tr>
<td>MUSIC 72AD</td>
<td>2.0 units</td>
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<tr>
<td><strong>Com Improvisation/Arranging/Scoring</strong></td>
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<tr>
<td>1 hour lecture, 3 hours laboratory</td>
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<tr>
<td>Recommended Preparation: Prior vocal experience.</td>
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<td>Grading: letter grade or credit/no credit</td>
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<tr>
<td>Designed to prepare students for careers as professional arrangers and improvisationalists. Study writing and performance principles as they apply to the recording industry. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
<td></td>
</tr>
</tbody>
</table>

| MUSIC 74AD  | 2.0 units |
| **Commercial Solo Voice** | |
| 1 hour lecture, 4 hours laboratory | |
| Recommended Preparation: MUSIC7AB | |
| Grading: letter grade or credit/no credit | |
| Designed to help pop, rock, gospel and jazz singers learn and improve their craft. Work with a PA system, accompanist, audio and video tapes. Weekly critiques by instructor. Transfer Status: Transferable to CSU, see counselor for limitations. | |

| MUSIC 75A  | 1.0 unit |
| **The Music Business** | |
| 3 hours lecture. | |
| Grading: letter grade or credit/no credit | |
| How the music business works, job opportunities, responsibilities and jobs related to the music business. Students have the opportunity to research areas of interest and discuss the music industry with guest speakers. Transfer Status: Transferable to CSU, see counselor for limitations. | |

| MUSIC 75B  | 1.0 unit |
| **The Music Business** | |
| 3 hours lecture. | |
| Grading: letter grade or credit/no credit | |
| How the music business works, job opportunities, responsibilities and jobs related to the music business. Students have the opportunity to research areas of interest and discuss the music industry with guest speakers. Transfer Status: Transferable to CSU, see counselor for limitations. | |

| MUSIC 76AD  | 1.0 unit |
| **Recording Techniques Lab** | |
| 3 hours laboratory | |
| Grading: letter grade or credit/no credit | |
| Advanced individualized study and group projects in multi-tracking studio techniques. Transfer Status: Transferable to CSU, see counselor for limitations. | |

| MUSIC 77AD  | 1.0 unit |
| **Studio Performance Techniques** | |
| 1 hour lecture, 3 hours laboratory | |
| Grading: letter grade or credit/no credit | |
| A lab in recording performances to introduce studio situations. An opportunity to prepare for and participate in live recordings. Transfer Status: Transferable to CSU, see counselor for limitations. | |

| MUSIC 78AD  | 1.0 unit |
| **Studio Singers** | |
| 2 hours lecture, 4 hours laboratory | |
| Recommended Preparation: Prior vocal experience | |
| Grading: letter grade or credit/no credit | |
| Study and performance of jazz and pop literature, emphasizing the stylistics characteristic of music from this style. Public performance and studio recording required. Transfer Status: Transferable to CSU, see counselor for limitations. | |

| MUSIC 79AD  | 1.0 unit |
| **Commercial Guitar/Bass Studies (Adv)** | |
| 1 hour lecture, 2 hours laboratory | |
| Grading: letter grade or credit/no credit | |
| A study of the techniques used in the playing of the guitar and electric bass. Designed to acquaint students with the skills necessary in the commercial music environment. Transfer Status: Transferable to CSU, see counselor for limitations. | |

| MUSIC 80AD  | 1.0 unit |
| **“City” Jazz Big Band** | |
| 1 hour lecture, 5 hours laboratory | |
| Grading: letter grade or credit/no credit | |
| Simulation of commercial, professional performing situations. Designed to augment a program of private study on one’s major instrument or voice. Transfer Status: Transferable to CSU, see counselor for limitations. | |

| MUSIC 81AD  | 2.0 units |
| **Commercial Keyboard** | |
| 1 hour lecture, 3 hours laboratory | |
| Grading: letter grade or credit/no credit | |
| A study of the piano for non-piano majors who plan to use the piano as a song writing and music theory study tool. Transfer Status: Transferable to CSU, see counselor for limitations. Course articulated with LBUSD. | |

| MUSIC 82AD  | 2.0 units |
| **Sound Reinforcement** | |
| 2 hours lecture, 4 hours laboratory | |
| Prerequisite: MUSIC 94 | |
| Grading: letter grade or credit/no credit | |
| Hands-on instruction in the use of sound reinforcement equipment, including micing techniques for live sound, selection and assembly of live sound systems and the development of mixing expertise in a live sound venue. Transfer Status: Transferable to CSU, see counselor for limitations. | |

| MUSIC 83AD  | 1.0 unit |
| **Film/Video Music/Scoring** | |
| 1 hour lecture, 2 hours laboratory | |
| Grading: letter grade or credit/no credit | |
| A study of the various aspects of writing for video, motion pictures and television, including appropriate compositional techniques, stylistic considerations and an in-depth study of the use and application of computer technology in writing music for video and film media. Transfer Status: Transferable to CSU, see counselor for limitations. | |

| MUSIC 84AD  | 2.0 units |
| **Commercial Songwriting** | |
| 2 hours lecture, 4 hours laboratory | |
| Grading: letter grade or credit/no credit | |
| To help develop and improve the student’s effectiveness at analyzing songs written by professional song writers and an intro to contemporary music technology and its applications for the song writer. Gain insight into the operation and usage of the drum machine, synthesizer, computers and how they relate to contemporary song writing. Transfer Status: Transferable to CSU, see counselor for limitations. | |
### Courses of Instruction

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
<th>Hours</th>
<th>Recommended Preparation</th>
<th>Grading</th>
<th>Transfer Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSIC 85AD</td>
<td>1.0</td>
<td>Commercial Small Jazz Group</td>
<td>1 hour, 3 hours laboratory</td>
<td>Prior instrumental experience</td>
<td>letter grade or credit/no credit</td>
<td>Transferable to CSU, see counselor for limitations</td>
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<tr>
<td>MUSIC 86AD</td>
<td>2.0</td>
<td>Record Production (Fundamentals)</td>
<td>1 hour, 6 hours laboratory</td>
<td>MUSC 94</td>
<td>letter grade or credit/no credit</td>
<td>Transferable to CSU, see counselor for limitations</td>
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<tr>
<td>MUSIC 87AD</td>
<td>1.0</td>
<td>Vocal Jazz Trios, Quintets, Octettes</td>
<td>1 hour, 3 hours laboratory</td>
<td>Prior vocal experience</td>
<td>letter grade or credit/no credit</td>
<td>Transferable to CSU, see counselor for limitations</td>
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<tr>
<td>MUSIC 88AD</td>
<td>1.0</td>
<td>Small Studio Lab</td>
<td>3 hours laboratory</td>
<td>One semester of MUSC94, 95, 96AD or 98AD</td>
<td>letter grade or credit/no credit</td>
<td>Transferable to UC/CSU, see counselor for limitations</td>
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<tr>
<td>MUSIC 89B</td>
<td>3.0</td>
<td>The History of Rock Music</td>
<td>3 hours lecture, 1 hour laboratory</td>
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<td>letter grade or credit/no credit</td>
<td>Transferable to UC/CSU, see counselor for limitations</td>
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<tr>
<td>MUSIC 90AD</td>
<td>2.0</td>
<td>Commercial Music Theory</td>
<td>1 hour, 3 hours laboratory</td>
<td>Prior instrumental experience</td>
<td>letter grade or credit/no credit</td>
<td>Transferable to UC/CSU, see counselor for limitations</td>
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<tr>
<td>MUSIC 91AD</td>
<td>2.0</td>
<td>Special Studies</td>
<td>1 hour lecture, 3 hours laboratory</td>
<td>Prior vocal or instrumental experience</td>
<td>letter grade or credit/no credit</td>
<td>Directed study of special problems in music theory, composition, musicology, performance practice or organization and administration of instrumental or vocal ensembles. Transferable to UC/CSU, see counselor for limitations</td>
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<tr>
<td>MUSIC 92AD</td>
<td>1.0</td>
<td>Applied Vocal &amp; Instrumental Music</td>
<td>10 hours laboratory</td>
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<td>letter grade or credit/no credit</td>
<td>Designed for music majors to complete. Strongly recommended instruction on either a keyboard instrument, voice, guitar or any standard instrument of the band or orchestra. Includes performance of representative music literature from various periods and composers. Level of proficiency is determined by faculty adjudication. Transferable to UC/CSU, see counselor for limitations</td>
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<tr>
<td>MUSIC 93AD</td>
<td>2.0</td>
<td>Record Production (Using MIDI)</td>
<td>1 hour lecture, 5 hours laboratory</td>
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<td>letter grade or credit/no credit</td>
<td>A hands-on approach into the production of records, utilizing computer technology and MIDI based musical equipment. Transferable to CSU, see counselor for limitations</td>
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<tr>
<td>MUSIC 94</td>
<td>2.0</td>
<td>Beginning Recording Techniques</td>
<td>2 hours lecture, 2 hours laboratory</td>
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<td>letter grade or credit/no credit</td>
<td>Hands-on instruction for beginners in the use of multi-track recording systems, emphasizing the development of critical listening skills and a recording project. Transferable to CSU, see counselor for limitations</td>
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<tr>
<td>MUSIC 95</td>
<td>2.0</td>
<td>Intermediate Recording Techniques</td>
<td>2 hours lecture, 2 hours laboratory</td>
<td></td>
<td>letter grade or credit/no credit</td>
<td>Intermediate recording theory and hands-on instruction in the use of a multitrack studio, emphasizing microphone techniques. Transferable to CSU, see counselor for limitations</td>
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<tr>
<td>MUSIC 96AD</td>
<td>2.0</td>
<td>Advanced Recording Techniques</td>
<td>1 hour lecture, 4 hours laboratory</td>
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<td>letter grade or credit/no credit</td>
<td>Advanced recording techniques, with hands-on instruction in the use of a 16-track studio. Individualized study and research into studio procedures, advanced mixing techniques and the development of mixing expertise. Transferable to CSU, see counselor for limitations</td>
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<tr>
<td>MUSIC 97AD</td>
<td>2.0</td>
<td>Tools of the Music Trade</td>
<td>2 hours lecture, 4 hours laboratory</td>
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<td>letter grade or credit/no credit</td>
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</tbody>
</table>
The study of the tools, skills, principles, methods and terminology used in the music trades including MIDI (Musical Instrument Digital Interface) systems and an in-depth survey of available technology. Transfer Status: Transferable to CSU, see counselor for limitations.

**MUSIC 98AD** 2.0 units
Synthese/Drum Mach/Sequencer Programming
1 hour lecture, 4 hours laboratory
Grading: letter grade or credit/no credit
A hands-on approach to the programming of synthesizers, drum machines and sequencers in a Macintosh based studio setting. Transfer Status: Transferable to CSU, see counselor for limitations.

**MUSIC 270AD** 1.0 unit
Work Experience Issues — Music
1 hour lecture.
Corequisite: Enrollment in at least seven units, including MUSIC 271AD, 272AD or 273AD and 270AD.
Grading: letter grade or credit/no credit
Seminar related to work experience. Discussion of work experience objectives, career goals, employment search, communication skills and problem solving.

**MUSIC 271AD** 1.0 unit
Work Experience — Music
4.2 hours laboratory
Corequisite: Enrollment in at least seven units, including MUSIC270AD and 271AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment directly related to the industry.

**MUSIC 272AD** 2.0 units
Work Experience — Music
8.3 hours laboratory
Corequisite: Enrollment in at least seven units, including MUSIC270AD and 272AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment directly related to the industry.

**MUSIC 273AD** 3.0 units
Work Experience — Music
12.5 hours laboratory
Corequisite: Enrollment in at least seven units, including MUSIC270AD and 273AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment directly related to the industry.

**NURSING, VOCATIONAL**

**VN 210A** 6.0 units
Nursing Assistant
4 hours lecture, 9 hours laboratory
Prerequisite: VN810A
Recommended Preparation: Current CPR card for health care providers, health evaluation, live scan fingerprints.
Grading: letter grade.
A beginning nursing course designed to develop an understanding of basic nursing skills. Successful completion qualifies for testing to be certified as a nursing assistant by the State of California and meets out-of-state nursing certification requirements. .3 hours lecture, 3 hours laboratory

**VN 210B** 2.0 units
Home Health Aide
1.3 hours lecture, 3 hours laboratory.
Prerequisite: VN 210A or certification as a nursing assistant from an approved nursing assistant course.
Current CPR card for health care providers.
Grading: letter grade.
For the Certified Nurse Assistant who has completed an approved nurse aide program and wishes to become a Certified Home Health Aide. Includes requirements set by the California State Department of Health Services for certification as a Home Health Aide. A Certified Nursing Assistant/Home Health Aide qualifies for advanced placement in the Vocational Nursing Program (Track II).

**VN 810A** 1.5 units
Orientation for Nurse Assistant
1.5 hours lecture.
Grading: credit/no credit
For the student who is planning to enter the Nurse Aide/Home Health Aide course. Designed to orient the student to nursing programs and provide skills and information necessary for a successful academic setting in nursing. Emphasizes individual approaches to learning through diagnoses of difficulties and the development of a system of study. Includes: goal setting, commitment and motivation, time management, study-reading techniques, memory and concentration, critical thinking, listening skills, note-taking and test taking skills.

**VOCN 205AD** 0.5 units
Nursing Skills Practice Laboratory
1.5 hours laboratory
Grading: credit/no credit
Allows self-paced individualized instruction in vocational nursing skills with supervised practice to improve performance of skills taught in the Vocational Nursing program.

**VOCN 206AD** 0.5 units
Nursing Skills Practice Laboratory
1.5 hours laboratory
Grading: credit/no credit
Allows self-paced, individualized instruction in vocational nursing skills with supervised practice to improve performance of skills taught in the first semester of the Vocational Nursing program.

**VOCN 207AD** 0.5 units
Nursing Skills Practice Laboratory
1.5 hours laboratory
Grading: credit/no credit
Allows self-paced, individualized instruction in vocational nursing skills with supervised practice to improve performance of skills taught in the second semester of the Vocational Nursing program. Builds on the skills practiced in VN 206AD.

**VOCN 208AD** 0.5 units
Nursing Skills Practice Laboratory
1.5 hours laboratory
Grading: credit/no credit
Allows self-paced, individualized instruction in vocational nursing skills with supervised practice to improve performance of skills taught in the third semester of the Vocational Nursing program. Builds on the skills practiced in VN 206AD and 207AD.
### Courses of Instruction

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td><strong>VOCN 285A</strong></td>
<td>1.0 unit</td>
<td>Transition to Vocational Nursing</td>
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<tr>
<td>0.5 hours lecture, 1.5 hours laboratory</td>
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<td></td>
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<tr>
<td>Prerequisite: VOCN 290A</td>
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<tr>
<td>Grading: letter grade.</td>
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<tr>
<td>Designed to prepare the Certified Nurse Assistant to enter the Vocational Nursing Program in the second course (287B Common Health Deviations 1). Orem’s Theory of Self-Care and nursing process is introduced. Advanced nursing skills, such as administration of medications, skills requiring sterile techniques and feeding/nasogastric tubes, are taught. Normally offered once each semester. Offered as a combination of theory and campus lab hours.</td>
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</tbody>
</table>

| **VOCN 286** | 3.0 units | Nursing Applications of Pharmacology |
| 3 hours lecture. | | |
| Grading: letter grade. | | |
| An intro to the study of medications and administration as a part of nursing care. Prototype drugs are classified into large sets so that relationships can be perceived and remembered. General principles of medication actions and interactions, both therapeutic and undesirable, are the basis for the study of individual medications. Calculation of medication dosages is emphasized. Not open for credit to students who have completed ADN 286. May take AH 60, BIO 60, AH 210A-B and courses to strengthen reading and math. | | |

| **VOCN 287A** | 3.0 units | Universal Self-Care Requisites |
| 3 hours lecture. | | |
| Prerequisite: A current CPR card. VN health evaluation. | | |
| Corequisite: VOCN 287BL | | |
| Recommended Preparation: HTECH 60, VOCN 286, VOCN 288B, BIO 60, SOCIO1, PSYCH1, courses to strengthen reading, English, math. | | |
| Grading: letter grade. | | |
| A fundamentals course designed to develop an understanding of basic life demands and essential knowledge and attitudes required to assist a client in meeting these demands. Orem’s Self-Care Theory, the nursing process and selected health care deviations are introduced. Normally offered for nine weeks with six hours of lecture each week. This course, with VN 287BL, meets the requirements to apply for State Nurse Assistant Certification. | | |

| **VOCN 287AL** | 2.0 units | Universal Self-Care Requisites Lab |
| 6 hours laboratory | | |
| Prerequisite: A current CPR card. VN health evaluation. | | |
| Corequisite: VOCN 287A | | |
| Recommended Preparation: HTECH 60, VOCN 286, VOCN 288C, BIO 60, SOCIO1, PSYCH1, courses to strengthen reading, English, math. | | |
| Grading: credit/no credit | | |
| A fundamentals course designed to develop an understanding of basic life demands and the skills and attitudes required to assist a client in meeting these demands. Orem’s Self-Care Theory and the nursing process are introduced. Normally offered for nine weeks with twelve hours lab each week. This course, with VN 287A, meets the requirements to apply for State Nurse Assistant Certification. | | |

| **VOCN 287B** | 3.0 units | Common Health Deviations 1 |
| 3 hours lecture. | | |
| Prerequisite: VOCN 287A and VOCN 287BL. A current CPR card for health care providers. | | |
| Corequisite: VOCN 287BL | | |
| Grading: letter grade. | | |
| Medical-surgical course designed to develop nursing care, pharmacology and diet therapy related to deviations in fluid and electrolyte imbalance, respiratory and cardiac conditions, hypertension and diabetes. Study of Orem’s Self-Care Theory and the nursing process is continued. Normally offered for nine weeks with six hours of lecture each week. | | |

| **VOCN 287BL** | 3.0 units | Common Health Deviations 1 Lab |
| 9 hours laboratory | | |
| Prerequisite: BIO 60 and either BIO 61 or BIO 261. VOCN 290A, VOCN 285A, VOCN 286, and VOCN 288C. | | |
| Current CPR card for health care providers, malpractice insurance and health evaluation. | | |
| Corequisite: VOCN 287B | | |
| Grading: credit/no credit | | |
| Medical-surgical course designed to apply nursing care, pharmacology and diet therapy related to deviations in fluid and electrolyte imbalance, respiratory and cardiac conditions, hypertension and diabetes. Study of Orem’s Self-Care Theory and the nursing process is continued. Normally offered for nine weeks with eighteen hours lab each week. | | |

| **VOCN 288A** | 3.0 units | Common Health Deviations 2 |
| 3 hours lecture. | | |
| Prerequisite: VOCN 287B and VOCN 287BL. | | |
| Corequisite: VOCN 288AL | | |
| Grading: letter grade. | | |
| A medical-surgical nursing course designed to develop understanding of nursing care, diet therapy and pharmacology related to the perioperative period, peripheral vascular, hematologic, gastrointestinal, urinary, musculoskeletal, eye and ear conditions and diseases and cancer. Utilization of Orem’s Self-Care Theory and the nursing process is continued. Principles of young adult development are studied. | | |

| **VOCN 288AL** | 3.0 units | Common Health Deviations 2 Lab |
| 9 hours laboratory | | |
| Prerequisite: VOCN 287B and VOCN 287BL. A current CPR card for health care providers. | | |
| Corequisite: VOCN 288A | | |
| Grading: credit/no credit | | |
| A medical-surgical nursing course designed to develop an understanding of nursing care, diet therapy and pharmacology related to the perioperative period, peripheral vascular, hematologic, gastrointestinal, urinary, musculoskeletal, eye and ear conditions and diseases and cancer. Implementation of Orem’s Self-Care Theory and the nursing process is continued. Principles of young adult development are studied. The role of the peer assistant is expanded. | | |

| **VOCN 288B** | 3.0 units | Common Health Deviations 3 |
| 3 hours lecture. | | |
| Prerequisite: VOCN 288A, 288AL | | |
| Corequisite: VOCN 288BL | | |
| Grading: letter grade. | | |
A medical-surgical nursing course designed to develop an understanding of nursing care, diet therapy and pharmacology related to substance abuse, sexually transmitted diseases and endocrine, reproductive, neurologic, immunologic and dermatologic conditions and diseases. Utilization of Orem’s Self-Care Theory and the nursing process is continued. Principles of middle adult development are studied.

**VOCN 288BL** 3.0 units
Common Health Deviations 3 Lab
9 hours laboratory
Prerequisite: VOCN 288A, 288AL
Corequisite: VOCN 288B
Grading: credit/no credit
A medical-surgical nursing course designed to develop an understanding of nursing care, diet therapy and pharmacology related to substance abuse, sexually transmitted diseases and endocrine, reproductive, neurologic, immunologic and dermatologic conditions and diseases. Implementation of Orem’s Self-Care Theory and the nursing process is continued. Principles of middle adult development are studied. The role of peer assistant is continued. Normally offered for nine weeks with eighteen hours of lab each week.

**VOCN 288C** 3.0 units
Common Mental Health Deviations
3 hours lecture.
Grading: letter grade.
Intro to the theory and process of structured and therapeutic communications, the helping relationships, and self-development. Students use group process and learn to assess responses to stress, reach nursing diagnosis, plan and evaluate nursing care to help the client compensate for or overcome mental health deviation self-care deficits. Nursing care is related to common mental health problems and the major psychiatric illnesses and integrates principles of personality development and psychopharmacology. May take AH 60 and BIO 60 with Common Mental Health Deviations. Offered in 18 week increments with 3 hours lecture each week or 6 week increments with 9 hours lecture each week.

**VOCN 289A** 1.0 unit
Developmental Levels: Maternal/Infant
1 hour lecture.
Prerequisite: VOCN 289A and 289AL
Corequisite: VOCN 289B
Recommended Preparation: BIO 61
Grading: letter grade.
An intro obstetrical course designed to develop an understanding of nursing care, pharmacology and diet therapy related to new mother and infant. Prenatal, perinatal and postpartum nursing care are studied. Implementation of Orem’s Self-Care Theory and nursing process is continued. Principles of fetal and newborn development are integrated. Normally offered for five weeks with three and one-half hours lecture each week.

**VOCN 289AL** 2.0 units
Developmental Levels — Maternal (Infant) Lab
6 hours laboratory
Prerequisite: VOCN 288B and 289BL. A current CPR card. VOCN 290 may be taken concurrently.
Corequisite: VOCN 289A
Recommended Preparation: BIO 61
Grading: letter grade or credit/no credit
Clinical experience is provided in both hospital and prenatal ambulatory care facilities dealing with mothers and infants. Normally offered for five weeks with 108 hours lab.

**VOCN 289B** 1.0 unit
Developmental Levels: Child
1 hour lecture.
Prerequisite: VOCN 289A and 289AL
Corequisite: VOCN 289BP
Recommended Preparation: BIO 61
Grading: letter grade.
An intro pediatric course designed to develop an understanding of nursing care, pharmacology and diet therapy for the pediatric client. The well baby, child and adolescents with short-term illnesses, developmental problems and chronic illnesses are studied. Implementation of Orem’s Self-Care Theory and the nursing process is continued. Normally offered for four weeks with four and one-half hours lecture each week.

**VOCN 289BP** 1.0 unit
Developmental Levels — Child (Practicum)
3 hours laboratory.
Prerequisite: VOCN 289A and 289AL
Corequisite: VOCN 289B
Recommended Preparation: BIO 61
Grading: credit/no credit
Clinical experience is provided in both hospital and prenatal ambulatory care facilities dealing with mothers and infants.

**VOCN 289C** 2.0 units
Developmental Levels: Older Adult
2 hours lecture.
Prerequisite: VOCN 288B and VOCN 288BL
Corequisite: VOCN 289CL and 289CP
Grading: letter grade.
An advanced medical-surgical course designed to provide the vocational nursing student with theoretical knowledge of nursing care for older adults. Study of Orem’s self-care theory and nursing process is continued. The developmental challenges and rewards of the older adult are studied. Normally offered for nine weeks.

**VOCN 289CL** 2.0 units
Developmental Levels: Older Adults Lab
6 hours laboratory.
Prerequisite: VOCN 288B and VOCN 288BL. A current CPR card for health care providers.
Corequisite: VOCN 289C and 289CP
Grading: credit/no credit
An advanced medical-surgical course designed to provide the vocational nursing student with application of the knowledge of nursing care for the older adult in a skilled nursing setting. Utilization of Orem’s self-care theory and nursing process is continued. The developmental challenges and rewards of the older adult are studied. Normally offered for four and one-half weeks.

**VOCN 289CP** 2.0 units
Developmental Levels: Older Adult (Practi)
6 hours laboratory.
Prerequisite: VOCN 289B and VOCN 289BL. A current CPR card for health care providers.
Corequisite: VOCN 289C and 289CL
Courses of Instruction

Grading: credit/no credit
An advanced medical-surgical course designed to provide the vocational nursing student with application of the knowledge of nursing care for an older adult in an ambulatory setting. Utilization of Orem’s self-care theory and nursing process is continued. The developmental challenges and rewards of the older adult are studied. Normally offered for four and one-half weeks.

VOCN 290 3.0 units
Roles And Responsibilities
3 hours lecture.
Prerequisite: VOCN 288B
Grading: letter grade.
An advanced course designed to assist in changing from the role of vocational nursing student to the role of vocational nursing graduate. Beginning library research skills, nursing in the community and the world, legal and ethical standards of vocational nursing practice and job application/job satisfaction skills in the health care system are covered.

VOCN 290A 1.5 units
Roles and Responsibilities 1
1.5 hours lecture.
Prerequisite: Certified Nursing Assistant (CNA) Certificate or an approved Nursing fundamentals course. BIO 60 (may be taken concurrently).
Corequisite: VOCN 287A and 287AL
Grading: letter grade.
An intro to vocational nursing, legal and ethical standards of vocational nursing practice, communication, cultural aspects of nursing and beginning nursing process. Must be taken at the beginning of the Vocational Nursing Program.

VOCN 290B 1.5 units
Roles and Responsibilities II
1.5 hours lecture.
Prerequisite: BIO 61 or 261, VOCN 289C, CL and CP
Corequisite: VOCN 289A and 289AL, 289B and 289BP
Grading: letter grade.
A preparation course for graduation, job application, interviews, information about higher education programs and preparation for taking the NCLEX (State Boards) for licensure as a vocational nurse. Must be taken as the last course of the Vocational Nursing Program.

VOCN 486 2.0 units
Nursing Applications of Pharmacology
2 hours lecture.
Grading: credit/no credit
Provides a review of drugs and drug administration as a part of nursing care. Prototype drugs are classified into large sets so that relationships can be perceived and remembered. General principles of drug actions and interactions, both therapeutic and undesirable, are the basis for the study of individual drugs. Not open for credit to students registered in or with credit in ADN 286.

NURSING, RN/ASSOCIATE DEGREE

ADN 11A 2.5 units
Introduction to Nursing
2.5 hours lecture.
Prerequisite: CPR certification for health care providers. BIO 60, 60L and CDECE47. ENGL 1 OR ENGL 105 OR ESL 34.
Corequisite: BIO 61 and ADN 11AL. PSYCH1 or SOCIO1 (one may be taken as a prerequisite).
Grading: letter grade or credit/no credit
An intro to the basic concepts of Orem’s Self-Care Requisites Nursing theory. Included are the basic knowledge, skills and attitudes necessary to meet or to assist in meeting the universal self care requisites of the hospitalized adult. Includes the fundamental concepts upon which subsequent courses in the nursing program build. Transfer Status: Transferable to CSU, see counselor for limitations. Course articulated with LBUSD.

ADN 11AL 1.5 units
Introduction to Nursing Lab
4.5 hours laboratory
Prerequisite: CPR certification for health care providers. BIO 60, 60L and CDECE47. ENGL 105 or ESL 34.
Corequisite: BIO 61 and ADN 11A
Grading: letter grade or credit/no credit
On-campus lab practice and application of the course content in live nursing situations. Transfer Status: Transferable to CSU, see counselor for limitations.

ADN 11B 2.5 units
Health Deviations 1
2.5 hours lecture.
Prerequisite: ADN 11A and 11AL. CPR Certification for health care providers.
Corequisite: BIO 61 and ADN 11BL
Grading: letter grade or credit/no credit
Intro to the demands for increased care which are necessitated by deviations in health in the adult. Emphasizes the self-care requisites of intake of air, intake of water, balance of activity and rest and normalcy, as well as the nursing process and medications, oral and injected. Transfer Status: Transferable to CSU, see counselor for limitations.

ADN 11BL 1.5 units
Health Deviations 1 Lab
4.5 hours laboratory
Prerequisite: ADN 11A and 11AL. CPR certification for health care providers.
Corequisite: BIO 61 and ADN 11B
Grading: letter grade or credit/no credit
On-campus lab practice and application of the course content in live nursing situations. Skill activities include oral and injected drug administration, respiratory assessment and related skills. Transfer Status: Transferable to CSU, see counselor for limitations.

ADN 12A 2.5 units
Health Deviations 2
2.5 hours lecture.
Prerequisite: ADN 11B, 11BL, BIO 61 and CPR certification for health care providers.
Corequisite: BIO 62 and ADN 12AL
Grading: letter grade or credit/no credit
Continues to explore the demands for increased care, necessitated by deviations in the health of the adult. Emphasizes the requisites of sufficient intake of water and food, elimination and excretion. In addition, the effects and results of specific pathological conditions and treatment modalities upon the surgical patient will be studied. Transfer Status: Transferable to CSU, see counselor for limitations.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>ADN 12AL</td>
<td>1.5</td>
<td>Health Deviations 2: Lab</td>
<td>4.5 hours laboratory. Prerequisite: ADN 11B, 11BL, BIO 61 and CPR certification for health care providers. Corequisite: BIO 62 and ADN 12A. Grading: letter grade or credit/no credit. On-campus lab practice and application of course content in the live nursing situation. Skill activities include intravenous therapy, selected physical assessments, medical and surgical aseptic practices and related skills. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>ADN 12B</td>
<td>2.5</td>
<td>Health Deviations 3</td>
<td>2.5 hours lecture. Prerequisite: ADN 12A, 12AL, BIO 61 and CPR certification for health care providers. Corequisite: BIO 62 and 12BL. Grading: letter grade or credit/no credit. Continues to explore the demands for increased care necessitated by deviations in the health of the adult. Emphasizes the requisites of sufficient intake of water and food, elimination and excretion. In addition, the effects and results of specific pathological conditions and treatment modalities upon the medical patient will be studied. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>ADN 12BL</td>
<td>1.5</td>
<td>Health Deviations 3: Lab</td>
<td>4.5 hours laboratory. Prerequisite: ADN 12A, 12AL, BIO 61 and CPR certification for health care providers. Corequisite: BIO 62 and ADN 12B. Grading: letter grade or credit/no credit. On-campus lab practice and application of course content in the live nursing situation. Skill activities include intravenous therapy, selected physical assessments, medical and surgical aseptic practices and related skills. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ADN 20A</td>
<td>1.0</td>
<td>Transition to Second Level Nursing</td>
<td>1 hour lecture. Prerequisite: BIO 62 and CDECE47 and PSYCH1 and ENGL 105 or ENGL 1 and CPR certification for health care providers. Corequisite: ADN 202AD. Grading: letter grade or credit/no credit. Designed to prepare advanced placement nursing students for second level nursing. The major foci are Orem’s Self Care Theory of Nursing and the application of the nursing process as a second level practitioner. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ADN 21A</td>
<td>2.5</td>
<td>Women’s Health</td>
<td>2.5 hours lecture. Prerequisite: ADN 12B, 12BL or 20A and BIO 62 and CPR certification for health care providers. Corequisite: ADN 31A and 21AL. Grading: letter grade or credit/no credit. Emphasizes the developmental self-care requisites, health deviations and universal self-care requisites of women and newborns. Involves study of gynecological problems and deviations from the normal pregnancy, as well as care during the prenatal, intrapartal and postpartal periods of the normal and high risk pregnancy. Care and assessment of the normal newborn are included. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ADN 21B</td>
<td>2.5</td>
<td>Mental Health</td>
<td>2.5 hours lecture. Prerequisite: ADN 12B and 12BL or 20A and BIO 62 and CPR certification for health care providers. Corequisite: ADN 31A and 21B. Grading: letter grade or credit/no credit. A study of Orem’s Theory of nursing as it relates to mental health and/or mental illness in the client with chronic debilitative diseases. Communication skills are a focus of the course. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>ADN 21BL</td>
<td>3.0</td>
<td>Mental Health Lab</td>
<td>9 hours laboratory. Prerequisite: ADN 12B and 12BL or 20A and BIO 62 and CPR certification for health care providers. Corequisite: ADN 31A and 21BL. Grading: letter grade or credit/no credit. A study of Orem’s Theory of nursing as it relates to mental health and/or mental illness in the client with chronic debilitative diseases. Communication skills are a focus of the course. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>ADN 22A</td>
<td>2.5</td>
<td>Adv Nursing I Critical Care Life Span</td>
<td>2.5 hours lecture. Prerequisite: ADN 21A and 21AL or 321A and 21B and 21BL and CPR certification for health care providers. Corequisite: ADN 31B and 22AL. Grading: letter grade or credit/no credit. A study of Orem’s Theory of nursing care in acute hospital and clinic settings. The major foci are: (1) caring for the adult patient in critical care areas and (2) caring for the ill child in the hospital setting and in the pediatric clinic. Emphasizes the educative/supportive role of the nurse. Transfer Status: Transferable to CSU, see counselor for limitations.</td>
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<tr>
<td>ADN 22AL</td>
<td>3.0</td>
<td>Adv Nurs I-Critical Care Lifespan Lab</td>
<td>9 hours laboratory. Prerequisite: ADN 21A and 21AL or 321A and 21B and 21BL and CPR certification for health care providers. Corequisite: ADN 31B and 22A. Grading: letter grade or credit/no credit.</td>
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Courses of Instruction

Activities include on-campus practice and application of course content in intensive care, pediatrics and related settings. Emphasizes the educative/supportive role of the nurse. Transfer Status: Transferable to CSU, see counselor for limitations.

ADN 22B  2.5 units
Advanced Nursing II/Role Transition
2.5 hours lecture.
Prerequisite: ADN 22A and 22AL or 322A and CPR
Certification for health care providers.
Corequisite: ADN 31B and 22B.
Grading: letter grade or credit/no credit
Provides the opportunity to integrate all previously learned theories and skills, advanced geriatric content and leadership theory in a primary or team nursing setting on various hospital shifts and in the home health setting. Emphasis is placed on the role transition from student to graduate nurse. Transfer Status: Transferable to CSU, see counselor for limitations.

ADN 22BL  3.0 units
Adv Nursing II-Role Transition Lab
9 hours laboratory.
Prerequisite: ADN 22A and 22AL or 322A and CPR certification for health care providers.
Corequisite: ADN 31B and 22B.
Grading: letter grade or credit/no credit
Provides the opportunity to integrate all previously learned theories and skills, advanced geriatric content and leadership theory in a primary or team nursing setting on various hospital shifts and in the home health setting. Emphasizes the role transition from student to graduate nurse. Transfer Status: Transferable to CSU, see counselor for limitations.

ADN 31A  1.0 unit
Trends in Nursing A
1 hour lecture.
Corequisite: ADN 21A and 21AL and 21B and 21BL.
Grading: letter grade or credit/no credit
Designed to study the trends and issues which affect current nursing practice. Major foci include the history of nursing, current social settings for the practice of nursing, the legal and ethical relationships in nursing, the economics of health care, the interpersonal relationships among health care professionals and current issues. Transfer Status: Transferable to CSU, see counselor for limitations.

ADN 31B  1.0 unit
Trends in Nursing B
1 hour lecture.
Prerequisite: ADN 31A.
Corequisite: ADN 22A and 22AL and 22B and 22BL
Grading: credit/no credit
Designed to continue the study of the trends and issues in nursing. Major foci include preparation for and exploration of employment opportunities, continuing education opportunities, preparation for licensing exam, development of a personal philosophy of nursing, the current role of the nurse and the transition into the RN role. Opportunities for professional involvement and current issues in nursing. Transfer Status: Transferable to CSU, see counselor for limitations.

ADN 200AD  0.5 units
Nursing Skills Adjunct Laboratory
1.5 hours laboratory
Grading: credit/no credit
Allows self-paced, individualized instruction in basic bedside nursing skills and advanced nursing skills, with supervised practice to improve performance. Designed for students in the RN program, students approved for re-entry, individuals who are currently licensed as LVNs and/or foreign graduate nurses.

ADN 201AD  0.5 units
Nursing Skills Adjunct Laboratory
1.5 hours laboratory
Grading: credit/no credit
Allows self-paced, individualized instruction in first semester basic bedside nursing skills with supervised practice to improve performance. Builds on skills practiced in ADN 200AD. Designed for students in the RN program, students approved for re-entry, individuals who are currently licensed as LVNs and/or foreign graduate nurses.

ADN 202AD  0.5 units
Nursing Skills Adjunct Laboratory
1.5 hours laboratory
Grading: credit/no credit
Allows self-paced, individualized instruction in second semester medical and surgical nursing skills with supervised practice to improve performance. Builds on skills practiced in ADN 201AD. Designed for students in the RN program, students approved for re-entry, individuals who are currently licensed as LVNs and/or foreign graduate nurses.

ADN 203AD  0.5 units
Nursing Skills Adjunct Laboratory
1.5 hours laboratory
Grading: credit/no credit
Allows self-paced, individualized instruction in maternal-child and mental health nursing skills with supervised practice to improve performance. Builds on skills practiced in ADN 202AD. Designed for students in the RN program, students approved for re-entry, individuals who are currently licensed as LVNs and/or foreign graduate nurses.

ADN 204AD  0.5 units
Nursing Skills Adjunct Laboratory
1.5 hours laboratory
Grading: credit/no credit
Allows self-paced, individualized instruction in advanced medical-surgical, critical care and pediatric nursing skills with supervised practice to improve performance. Builds on skills practiced in ADN 203AD. Designed for students in the RN program, students approved for re-entry, individuals who are currently licensed as LVNs and/or foreign graduate nurses.

ADN 212AD  2.0 units
Clinical Practicum I
6 hours laboratory
Prerequisite: ADN 11A and 11B
Corequisite: ADN 12A or 12B.
Grading: credit/no credit
Student nurse experiences in approved health care agencies through a Board of Registered Nursing approved program to apply theory and principles taught in the classroom to the clinical setting.

ADN 221AD  2.0 units
Clinical Practicum II
6 hours laboratory
Prerequisite: ADN 12A and 12B
Courses of Instruction

PHILOSOPHY

PHIL 3 3.0 units
Intro to Issues/Phil, Psych & Religion
3 hours lecture.
Grading: letter grade or credit/no credit
Using a point/counterpoint debate format, a teaching team composed of a philosopher and a psychologist compare and integrate insights from three disciplines—philosophy, psychology and religion. A critical investigation and debate of theoretical positions, such as Platonic idealism, Christian theology, Freudian analysis, Skinnerian behaviorism, existentialism and other major intellectual viewpoints. Not open for credit to students registered in or with credit in PSYCH3 or HUMAN3.
Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PHIL 6 (CAN PHIL 2) 3.0 units
Introduction to Philosophy
3 hours lecture.
Grading: letter grade or credit/no credit
A broad intro to the field of philosophy through the consideration of topics such as metaphysics, epistemology, logic, ethics, science and religion.
Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PHIL 6H 3.0 units
Honors Introduction to Philosophy
3 hours lecture.
Prerequisite: Qualification for the Honors Program.
Grading: letter grade or credit/no credit
A broad intro to the field of philosophy through the consideration of topics such as metaphysics, epistemology, logic, ethics, science and religion.
Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PHIL 7 (CAN PHIL 4) 3.0 units
Introduction to Ethics
3 hours lecture.
Grading: letter grade or credit/no credit
A study of the nature of morality and the application of moral principles. Examines some of the most influential moral theories formulated by philosophers of the past and present, and analyzes their applications with respect to controversial moral issues, such as abortion, euthanasia and capital punishment.
Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PHIL 7H 3.0 units
Honors Introduction to Ethics
3 hours lecture.
Prerequisite: Qualification for the Honors Program
Grading: letter grade or credit/no credit
An exam of the nature of morality and the application of moral principles. Covers major moral theories and considers their application with respect to controversial moral issues such as abortion, euthanasia and capital punishment.
Transfer Status: Transferable to CSU, see counselor for limitations.

PHIL 8 3.0 units
Introduction to Non-Western Philosophy
3 hours lecture.
Grading: letter grade or credit/no credit
Courses of Instruction

A broad intro to some of the main philosophical traditions from around the world, such as Eastern Philosophy, African Philosophy and American Indian Philosophy. Themes include the meaning of life, spirituality, the role of the individual and society, the nature of reality and the affects of history and culture on belief systems. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PHIL 9 3.0 units
Introduction to Existentialism
3 hours lecture.
Grading: letter grade or credit/no credit
Examine the philosophical thought of existentialist writers such as Kierkegaard, Heidegger, Dostoyevsky, and Sartre. Emphasizes the analysis of recurring themes such as freedom, individuality, meaning and value and the existence of God. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PHIL 10 3.0 units
Introduction to Feminist Ethics
3 hours lecture.
Grading: letter grade or credit/no credit
Examine feminist thinking and writing on philosophical issues including metaphysics, epistemology, social philosophy and ethics. Includes an exploration of rights, justice and responsibility. Transfer Status: Transferable to CSU, see counselor for limitations.

PHIL 11 3.0 units
Critical Thinking
3 hours lecture.
Grading: letter grade or credit/no credit
Understand, practice and improve practical reasoning skills. Focuses on the nature of reasoning and the detection and avoidance of common fallacies. Will develop the knowledge and habits needed to make decisions between conflicting ideas and beliefs. Applications are made to both contemporary and perennial issues, such as current political events and capital punishment. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PHIL 12 (CAN PHIL 6) 3.0 units
Introduction to Logic
3 hours lecture.
Grading: letter grade or credit/no credit
An analysis of the elements of clear and orderly thought, emphasizing deductive reasoning. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PHIL 14 3.0 units
Historical-Philosophical Study: Religion
3 hours lecture.
Grading: letter grade or credit/no credit
An exam of the major religions of the world (such as Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity, Islam, Pantheism and Paganism); evaluation of the main ideas and values embodied in those religions; and assistance in the formulation of an intelligent philosophy of religion. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PHIL 15 3.0 units
Introduction to Political Philosophy
3 hours lecture.
Grading: letter grade or credit/no credit
Examine some of the primary issues within political philosophy such as justifying political authority, distributive justice and the rights and liberties of citizens. Transfer Status: Transferable to CSU, see counselor for limitations.

PHIL 16 3.0 units
Introduction to Business Ethics
3 hours lecture.
Grading: letter grade or credit/no credit
Examine ethical issues in business including environmental concerns, the distribution of wealth, informational ethics, privacy and autonomy and affirmative action. These will be discussed in the context of moral theories such as utilitarianism, deontology and ethical egoism. Transfer Status: Transferable to CSU, see counselor for limitations.

PHOTOGRAPHY, OCCUPATIONAL

PHOT 1 2.0 units
The Photographic Vision
2 hours lecture.
Grading: letter grade or credit/no credit
This intro course teaches a means of human communication, as well as a technical skill. Intro to the basic technical principles of the camera and how photography has, through history, influenced human perception and communication. Provides techniques for responding to the content and structure of photographs. Renowned photographers representing various perspectives appear as guests on television programs, discussing and demonstrating their unique approaches to their work. The historical and aesthetic dimensions are provided by guest museum curators, historians and critics. Throughout, students are given specific photographic projects designed to expand their photographic vision. Transfer Status: Transferable to CSU, see counselor for limitations.

PHOT 31AB (CAN ART 18) 3.0 units
Basic Photography — Black and White
2 hours lecture, 6 hours laboratory
Grading: letter grade or credit/no credit
A comprehensive course in photographic techniques for the beginning student. Emphasizes the practical applications in the use of the camera, lenses, shutters, natural lighting, roll film processing, enlarging and mounting of finished prints. Transfer Status: Transferable to CSU, see counselor for limitations.

PHOT 32AD 3.0 units
Basic Photography — Color
2 hours lecture, 6 hours laboratory
Grading: letter grade or credit/no credit
A comprehensive course in color photography introducing practical problems involved in color printing and processing of transparencies and negatives. Explore color theory, film, paper, analysis of negatives, filtration and exposure and includes a professional critique of the work. Transfer Status: Transferable to CSU, see counselor for limitations.

PHOT 33AD 4.0 units
Photography Studio Lighting
2 hours lecture, 6 hours laboratory
Prerequisite: One semester of PHOT 31AB.
Courses of Instruction

PHOT 34AD  4.0 units
Advanced Photography — Applications
2 hours lecture, 6 hours laboratory
Prerequisite: One semester of PHOT 32AD and PHOT 33AD
Grading: letter grade or credit/no credit
A comprehensive course in commercial photography. The major emphasis is on view camera and studio lighting techniques and part of the vocational program in photography. Transfer Status: Transferable to CSU, see counselor for limitations.

PHOT 35AD  3.0 units
Photography
2 hours lecture, 3 hours laboratory
Prerequisite: One semester of PHOT 31AB
Grading: letter grade or credit/no credit
A comprehensive occupational course for the student of photography. The major emphasis is centered around methods of complex problem-solving in professional photography. Transfer Status: Transferable to CSU, see counselor for limitations.

PHOT 36AD  4.0 units
Professional Photographic Portfolio
2 hours lecture, 6 hours laboratory
Prerequisite: One semester of PHOT 31AB
Grading: letter grade or credit/no credit
A comprehensive occupational course for the advanced student of photography. The emphasis is on developing a professional photographic portfolio. Transfer Status: Transferable to CSU, see counselor for limitations.

PHOT 37AD  4.0 units
Portraits/Photography
2 hours lecture, 6 hours laboratory
Prerequisite: One semester of PHOT 31AB or PHOT 32AD.
Grading: letter grade or credit/no credit
A comprehensive course for the beginning and advanced student of portraiture with a special emphasis on posing and lighting and the business aspects of portrait photography as an occupation. Transfer Status: Transferable to CSU, see counselor for limitations.

PHOT 38  3.0 units
Marketing Professional Photo Skills
3 hours lecture.
Grading: letter grade or credit/no credit
Covers the application of current practices utilized in marketing professional photographic skills. Includes: freelance marketing, design and use of portfolio and professional photographic business practices. Transfer Status: Transferable to CSU, see counselor for limitations.

PHOT 39AD  3.0 units
Documentary Photography
2 hours lecture, 3 hours laboratory
Prerequisite: One semester of PHOT 31AB.
Grading: letter grade or credit/no credit
A comprehensive occupational course in documentary photography for annual reports, stock photos and public relations. Includes: releases, copyrights, legends and billing procedures. Transfer Status: Transferable to CSU, see counselor for limitations.

PHOT 40AD  4.0 units
View Camera/"Zone System Photo"
2 hours lecture, 6 hours laboratory
Prerequisite: PHOT 31AB
Grading: letter grade or credit/no credit
A comprehensive course for the advanced student of photography. Emphasizes view camera use, including perspective control, distortion control and metering methods. Transfer Status: Transferable to CSU, see counselor for limitations.

PHOT 41AD  4.0 units
Professional Photographic Portfolio
2 hours lecture, 6 hours laboratory
Prerequisite: One semester of PHOT 31AB.
Grading: letter grade or credit/no credit
A comprehensive occupational course for the advanced student of photography. The emphasis is on developing a professional photographic portfolio. Transfer Status: Transferable to CSU, see counselor for limitations.

PHOT 42AD  4.0 units
Experimental Photography Laboratory
2 hours lecture, 6 hours laboratory
Prerequisite: One semester of PHOT 31AB or 32AD.
Grading: letter grade or credit/no credit
A comprehensive advanced lab course for students enrolled in the photography program or persons who have a background in photography and wish to improve their skills. Emphasizes practical experimental solutions to conceptual visual design problems in commercial photography. Transfer Status: Transferable to CSU, see counselor for limitations.

PHOT 43AD  3.0 units
Digital Photography
2 hours lecture, 4 hours laboratory
Prerequisite: One semester of ART 41 or CPAS 1B
Recommended Preparation: One semester of PHOT 31AB or 32AD.
Grading: letter grade or credit/no credit
A comprehensive course to train students in the application of electronic media and its use in manipulating and creating photographic images. Includes: initial computer file creation using direct digital input, scanners and photo CD, computerized image editing, image export to page layout and illustration programs, file output to viewable media and film recorders and copyright topics. The digital darkroom is a major component of this course. Transfer Status: Transferable to CSU, see counselor for limitations.

PHOT 70AD  1.0 unit
Work Experience Issues—Photography
1 hour lecture.
Corequisite: Enrollment in at least seven units including PHOT 71AD, 72AD or 73AD and 70AD.
Grading: letter grade or credit/no credit
Seminar related to work experience, discussion of work experience objectives, career goals, employment adjustment and problem areas encountered on the job. Transfer Status: Transferable to CSU, see counselor for limitations.

PHOT 71AD  1.0 unit
Work Experience—Photography
4.1 hours laboratory
Corequisite: Enrollment in at least seven units including PHOT 70AD and 71AD.
Grading: letter grade or credit/no credit
An extension of vocational learning experiences through employment in work experience directly related to photography. One unit of credit shall be granted for every 75 hours per semester, maximum of twelve units.
Transfer Status: Transferable to CSU, see counselor for limitations.

PHOT 72AD 2.0 units
Work Experience - Photography
8.3 hours laboratory
Corequisite: Enrollment in at least seven units including PHOT 70AD and 72AD.
Grading: letter grade or credit/no credit
An extension of vocational learning experiences through employment in work experience directly related to photography. One unit of credit shall be granted for every 75 hours per semester, maximum of twelve units. Transfer Status: Transferable to CSU, see counselor for limitations.

PHOT 73AD 3.0 units
Work Experience - Photography
12.5 hours laboratory
Corequisite: Enrollment in at least seven units including PHOT 70AD and 73AD.
Grading: letter grade or credit/no credit
An extension of vocational learning experiences through employment in work experience directly related to photography. One unit of credit shall be granted for every 75 hours per semester, maximum of twelve units. Transfer Status: Transferable to CSU, see counselor for limitations.

PHOT 281AD 1.0 unit
Photography Laboratory
3 hours laboratory
Grading: letter grade or credit/no credit
For students enrolled in the photography program or persons who have a background in photography and wish to improve their skills. Emphasizes practical applications in roll and sheet film processing, enlarging and mounting of finished prints.

PHOT 291AD 1.0 unit
Advanced Photography Laboratory
3 hours laboratory
Grading: letter grade or credit/no credit
For students enrolled in the photography program or persons who have a background in photo and wish to improve their skills. Emphasizes practical applications in roll and sheet film processing, enlarging and mounting of finished prints.

PHOT 681 0.0 units
Fundamentals of Photography Laboratory
6 hours laboratory
Grading: no grade awarded
A lab for the beginning photo student or persons who have a background in photography and wish to improve their skills. Emphasizes practical applications of roll film processing, enlarging and mounting of finished prints. Intended for senior citizens.

PHYSICAL EDUCATION, GENERAL

PEG 5AD 0.5 units
Archery
2 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of archery. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 6AD 1.0 unit
Archery
3 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of archery. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 9AD 0.5 units
Badminton
2 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of badminton. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 10AD 1.0 unit
Badminton
3 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of badminton. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 11AD 0.5 units
Baseball
2 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of baseball. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 12AD 1.0 unit
Baseball
3 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of baseball. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 13AD 0.5 units
Basketball
2 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of basketball. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 14AD 1.0 unit
Basketball
3 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of basketball. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 19AD 0.5 units
Bowling
2 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of bowling. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 20AD 1.0 unit
Bowling
3 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of bowling. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 31AD 0.5 units
Golf
2 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of golf. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 32AD 1.0 unit
Golf
3 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of golf. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 55AD 4.0 units
Lifeguard/Water Safety Training
3 hours lecture, 3 hours laboratory
Prerequisite: Advanced swimming ability.
Grading: letter grade.
Certification course for American Red Cross water safety instructors and lifeguards. Enables students to instruct swimming courses and to serve as a lifeguard at aquatic facilities. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 58AD 1.0 unit
Intramural Activities
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade.
Designed to allow all students the opportunity to engage in a variety of competitive sports and activities in an intramural environment. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 59AD 0.5 units
Racquetball
2 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of racquetball. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 60AD 1.0 unit
Racquetball
3 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of racquetball. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 65AD 0.5 units
Self-Defense
2 hours laboratory
Grading: letter grade.
Techniques and practical applications of self-defense skills, psychological defenses and assertiveness training. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 66AD 1.0 unit
Self-Defense
3 hours laboratory
Grading: letter grade.
Techniques and practical applications of self-defense skills, psychological defenses and assertiveness training. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 69AD 0.5 units
Soccer
2 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of soccer. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 70AD 1.0 unit
Soccer
3 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of soccer. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 73AD 0.5 units
Softball
2 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of softball. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 74AD 1.0 unit
Softball
3 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of softball. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 75AD 0.5 units
Swimming
2 hours laboratory
Grading: letter grade.
Instruction in the techniques of the basic aquatic strokes. Transfer Status: Transferable to UC/CSU, see counselor for limitations.
PEG 76AD 1.0 unit
Swimming
3 hours laboratory
Grading: letter grade.
Instruction in the techniques of the basic aquatic strokes. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 83AD 0.5 units
Tennis
2 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of tennis. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 84AD 1.0 unit
Tennis
3 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of tennis. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 85AD 0.5 units
Touch Football
2 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of touch football. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 86AD 1.0 unit
Touch Football
3 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of touch football. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 87AD 0.5 units
Track & Field
2 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of track and field. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 88AD 1.0 unit
Track & Field
3 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of track and field. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 89AD 0.5 units
Volleyball
2 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of volleyball. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEG 90AD 1.0 unit
Volleyball
3 hours laboratory
Grading: letter grade.
Instruction in the rules, techniques and strategies of volleyball. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PHYSICAL EDUCATION, INTERCOLLEGIATE

PEIA 1AD 3.0 units
Baseball (Men)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Grading: letter grade.
A diverse program of intercollegiate athletics for men and women of exceptional ability which fulfills the legal requirement for a physical education activity. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEIA 3AD 3.0 units
Basketball (Men)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Grading: letter grade.
A diverse program of intercollegiate athletics for men and women of exceptional ability which fulfills the legal requirement for a physical education activity. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEIA 5AD 3.0 units
Cross Country (Men)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Grading: letter grade.
A diverse program of intercollegiate athletics for men and women of exceptional ability which fulfills the legal requirement for a physical education activity. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEIA 7AD 3.0 units
Football (Men)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Grading: letter grade.
A diverse program of intercollegiate athletics for men and women of exceptional ability which fulfills the legal requirement for a physical education activity. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEIA 9AD 3.0 units
Golf (Men)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Grading: letter grade.
Instruction in the rules, techniques and strategies of golf. Designed for men of exceptional ability who wish to participate in intercollegiate athletics. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEIA 13AD 3.0 units
Soccer (Men)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Grading: letter grade.
A diverse program of intercollegiate athletics for men of exceptional ability. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEIA 15AD 3.0 units
Swimming (Men)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Grading: letter grade.
A diverse program of intercollegiate athletics for men and women of exceptional ability which fulfills the legal requirement for a physical education activity. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEIA 17AD 3.0 units
Tennis (Men)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Grading: letter grade.
A diverse program of intercollegiate athletics for men and women of exceptional ability which fulfills the legal requirement for a physical education activity. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEIA 19AD 3.0 units
Track & Field (Men)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Grading: letter grade.
A diverse program of intercollegiate athletics for men and women of exceptional ability which fulfills the legal obligation for a physical education activity. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEIA 21AD 3.0 units
Volleyball (Men)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Grading: letter grade.
A diverse program of intercollegiate athletics for men of exceptional ability. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEIA 23AD 3.0 units
Water Polo (Men)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Grading: letter grade.
A diverse program of intercollegiate athletics for men and women of exceptional ability which fulfills the legal requirement for a physical education activity. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEIA 27AD 3.0 units
Basketball (Women)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Grading: letter grade.
A diverse program of intercollegiate athletics for men and women of exceptional ability which fulfills the legal requirement for a physical education activity. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEIA 29AD 3.0 units
Cross Country (Women)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Grading: letter grade.
A diverse program of intercollegiate athletics for men and women of exceptional ability which fulfills the legal requirement for a physical education activity. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEIA 31AD 3.0 units
Golf (Women)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Grading: letter grade.
Instruction in the rules, techniques and strategies of golf. Designed for women of exceptional ability who wish to participate in intercollegiate athletics. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEIA 35AD 3.0 units
Soccer (Women)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Grading: letter grade.
A diverse program of intercollegiate athletics for men and women of exceptional ability which fulfills the legal requirement of a physical education activity. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEIA 37AD 3.0 units
Softball (Women)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Grading: letter grade.
A diverse program of intercollegiate athletics for men and women of exceptional ability which fulfills the legal requirement for a physical education activity. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEIA 39AD 3.0 units
Swimming (Women)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Grading: letter grade.
A diverse program of intercollegiate athletics for men and women of exceptional ability which fulfills the legal requirement for a physical education activity. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEIA 41AD 3.0 units
Tennis (Women)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Grading: letter grade.
A diverse program of intercollegiate athletics for women of exceptional ability which fulfills the legal requirement for a physical education activity. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEIA 43AD 3.0 units
Track & Field (Women)
10 hours laboratory
Recommended Preparation: Admission limited to tryout
Courses of Instruction

Grading: letter grade.
A diverse program of intercollegiate athletics for men and women of exceptional ability which fulfills the legal requirement for a physical education activity. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**PEIA 45AD**

3.0 units

**Volleyball (Women)**

10 hours laboratory

Recommended Preparation: Admission limited to tryout

Grading: letter grade.

A diverse program of intercollegiate athletics for men and women of exceptional ability which fulfills the legal requirement for a physical education activity. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**PEIA 47AD**

3.0 units

**Water Polo (Women)**

10 hours laboratory

Recommended Preparation: Admission limited to tryout

Grading: letter grade.

Instruction in the rules, techniques and strategies of water polo. Designed for women of exceptional ability who wish to participate in intercollegiate athletics. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**PHYSICAL EDUCATION, OUTDOOR**

**PEOS 5AD**

1.0 unit

**Backpacking**

4 hours laboratory

Grading: letter grade.

A course in backpacking and trip planning with three to five days of field experience. Transfer Status: Transferable to CSU, see counselor for limitations.

**PEOS 55AD**

0.5 units

**Cross Country (Nordic) Skiing**

2 hours laboratory

Grading: letter grade.

Instruction and practice in cross-country ski techniques, including an exercise program, dry land drills, proper ski equipment, clothing and accessories for ski tour, ski waxing, conditioning, nutrition, tour planning, wilderness hazards, safety and wilderness conservation. Transfer Status: Transferable to CSU, see counselor for limitations.

**PEOS 56AD**

1.0 unit

**Cross Country (Nordic) Skiing**

3 hours laboratory

Grading: letter grade.

Instruction and practice in cross-country ski techniques, including an exercise program, dry land drills, proper ski equipment, clothing and accessories for ski tour, ski waxing, conditioning, nutrition, tour planning, wilderness hazards, safety and wilderness conservation. Transfer Status: Transferable to CSU, see counselor for limitations.

**PEOS 58AD**

1.0 unit

**Basic Rock Climbing**

3 hours laboratory

Grading: letter grade.

An intro to basic rock climbing techniques with instruction and practice in rope handling, use of knots, protection, anchoring belays and rappels, emphasizing climbing safety. The elements of sound climbing judgment will be analyzed and stressed. Typically a nine-week course offered the first nine-weeks of the fall semester and the second nine weeks of the spring semester. Part of the instruction will be presented on a required weekend field trip which will provide the student with real climbing experience. Transfer Status: Transferable to CSU, see counselor for limitations.

**PHYSICAL EDUCATION, PHYSICAL FITNESS**

**PEPF 2AD**

1.0 unit

**Monitoring and Developing Sports Skills**

4 hours laboratory

Grading: letter grade.

Selected field tests of physical fitness, joint flexibility, and muscular dexterity are administered before, during and after an assortment of prescribed physical drills and exercises. Programs to improve cardiovascular endurance, muscular strength and joint mobility are included. Focuses on individualized and group goals, including but not limited to demonstration of skill levels and measurement of increase in strength. Safe and sane approaches to exercise and diet and the effects of alcohol and drugs will be stressed. Transfer Status: Transferable to CSU, see counselor for limitations.

**PEPF 3AD**

0.5 units

**Water Aerobics and Training**

2 hours laboratory

Grading: letter grade.

An aerobic physical fitness program employing water resisting exercises without the need of swimming skills. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**PEPF 4AD**

1.0 unit

**Water Aerobics and Training**

3 hours laboratory

Grading: letter grade.

An aerobic physical fitness program employing water resisting exercises without the need of swimming skills. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**PEPF 5AD**

0.5 units

**Dance Aerobics**

2 hours laboratory

Grading: letter grade.

Perform exercise and dance routines to music to enhance flexibility while emphasizing development of strength and endurance. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**PEPF 6AD**

1.0 unit

**Dance Aerobics**

3 hours laboratory

Grading: letter grade.

Perform exercise and dance routines to music to enhance flexibility while emphasizing the developing of strength and endurance. Transfer Status: Transferable to UC/CSU, see counselor for limitations.
PEPF 7AD 2.0 units  
Techniques of Aerobic Instruction  
1 hour lecture, 3 hours laboratory  
Grading: letter grade.  
For aerobic instructors or other interested persons exploring fundamental methods and techniques for successfully conducting aerobic or anaerobic exercise classes. Includes lectures, as well as lab requirements in practice application sessions. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEPF 8AD 2.5 units  
Aerobic Circuit Training  
1 hour lecture, 5 hours laboratory  
Grading: letter grade.  
Cardiovascular and strength fitness training in a circuit setting. Ideal for normal, healthy people. Complete body conditioning. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEPF 21AD 0.5 units  
Physical Fitness  
2 hours laboratory  
Grading: letter grade.  
A physical fitness program of jogging, running, conditioning and circuit training exercises. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEPF 22AD 1.5 units  
Physical Fitness  
5 hours laboratory  
Grading: letter grade.  
A physical fitness program of jogging, running, conditioning and circuit training exercises. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEPF 41AD 0.5 units  
Swimming Fitness  
2 hours laboratory  
Grading: letter grade.  
A physical fitness program and swimming related circuit training exercises. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEPF 42AD 1.0 unit  
Swimming Fitness  
3 hours laboratory  
Grading: letter grade.  
A physical fitness program and swimming related circuit training exercises. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEPF 47AD 0.5 units  
Swim Fitness/Polo  
2 hours laboratory  
Grading: letter grade.  
An advanced fitness program combining the development of water polo and swimming skills. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEPF 48AD 1.0 unit  
Swim Fitness/Polo  
3 hours laboratory  
Grading: letter grade.  
An advanced fitness program combining the development of water polo and swimming skills. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEPF 53AD 0.5 units  
Weight Training  
2 hours laboratory  
Grading: letter grade.  
Exercises for body development, competitive lifting techniques and understanding of gross anatomy are covered. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEPF 54AD 1.0 unit  
Weight Training  
3 hours laboratory  
Grading: letter grade.  
Learn exercises for body development, competitive lifting techniques and understanding of gross anatomy. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PEPF 70A 1.0 unit  
Physical Fitness for Aviators  
0.5 hours lecture, 1.5 hours laboratory  
Grading: letter grade or credit/no credit  
Covers physical fitness and fit lifestyles for aviators and students preparing for FAA and airline medical exams. Emphasizes lecture and exercise to develop and maintain cardiovascular endurance, muscular strength and joint mobility. May be taken out of sequence. Transfer Status: Transferable to CSU, see counselor for limitations.

PEPF 70B 1.0 unit  
Physical Fitness for Aviators  
0.5 hours lecture, 1.5 hours laboratory  
Grading: letter grade or credit/no credit  
Covers physical fitness and fit lifestyles for aviators and students preparing for FAA and airline medical exams. Emphasizes fitness testing and exercise. May be taken out of sequence. Transfer Status: Transferable to CSU, see counselor for limitations.

PEPF 81AD 1.0 unit  
Fitness and Wellness Center  
0.5 hours lecture, 1.5 hours laboratory  
Grading: letter grade.  
Selected field and lab tests of physical fitness are administered before, during and after an assortment of exercise programs to improve cardiovascular endurance, local muscular endurance, muscular strength and joint mobility. Lectures focus on individualized goals and continuous self-evaluation, safe and sane approaches to diet and exercise, scientific information versus fallacy and weight control. Transfer Status: Transferable to CSU, see counselor for limitations.

PEPF 83AD 2.0 units  
Fitness & Wellness I  
1 hour lecture, 3 hours laboratory  
Grading: letter grade or credit/no credit  
Physical fitness tests are administered before, during and after exercise programs to improve reserve capacity in endurance, local muscular endurance, muscular strength and joint mobility. Lectures and assignments focus on individual goals and continuous self-evaluation, safe and sane exercise and scientific information versus...
Courses of Instruction

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<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
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<td>PEPF 84AD</td>
<td>Fitness and Wellness Center II</td>
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<tr>
<td>PEPF 629</td>
<td>Physical Fitness</td>
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<td>PEPF 681</td>
<td>Human Performance Laboratory</td>
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<tr>
<td>PEPF 1</td>
<td>Introduction to Physical Education</td>
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<tr>
<td>PEPF 5</td>
<td>Sports Appreciation</td>
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<tr>
<td>PEPF 6AD</td>
<td>Introduction to Principles of Adapted PE</td>
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<tr>
<td>PEPF 7 (CAN REC 2)</td>
<td>Intro to Community Recreation</td>
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<td>PEPF 10</td>
<td>Prevention &amp; Care of Athletic Injuries</td>
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<td>PEPF 13</td>
<td>Dance Aerobics-Professional Preparation</td>
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<tr>
<td>PEPF 15</td>
<td>Sports Officiating (Fall)</td>
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<tr>
<td>PEPF 17</td>
<td>Sports Officiating (Spring)</td>
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</table>

Includes the use of exercise equipment for the disabled, assisting people in/out of wheelchairs, assisting with various health related sport activities for the disabled, use of basic physiological, kinesiological and biomechanical principles applied in the adapted physical education setting. For students who have an interest in pursuing careers in allied health, counseling, education, social work, medicine and nursing. Transfer Status: Transferable to CSU, see counselor for limitations.

Fallacy. Transfer Status: Transferable to CSU, see counselor for limitations.

Grading: letter grade or credit/no credit

Physical fitness tests are administered before, during and after exercise programs to improve reserve capacity in endurance, muscular strength and joint mobility. Lectures and assignments focus on modifications of lifestyle to enhance the qualify of life and reduce health risks. Transfer Status: Transferable to CSU, see counselor for limitations.

Grading: no grade awarded

Emphasis is on individual programs, with the practical application in physical, emotional and social well-being. Endurance and flexibility exercises are included. Designed for senior citizens.

Grading: no grade awarded

Selected field and lab tests of physical fitness taken before, during and after an assortment of exercise programs to check cardiovascular endurance, local muscular endurance, muscular strength and joint mobility. Lectures focus on individualized goals and continuous self-evaluation, safe and sane approaches to diet and exercise and scientific information versus fallacy and weight control.

PHYSICAL EDUCATION, PROFESSIONAL PREPARATION

Introduction to Physical Education
2 hours lecture.
Grading: letter grade.
A survey of physical education and its significance in the school program, an analysis of established standards of professional ethics, a discussion of personal qualities and interests necessary to successful leadership in this field. Required of physical education majors. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

Sports Appreciation
3 hours lecture.
Grading: letter grade.
A survey of sports and its role in society with a special emphasis on spectator appreciation of football, basketball, baseball, ice hockey and soccer. Transfer Status: Transferable to CSU, see counselor for limitations.

Introduction to Principles of Adapted PE
1 hour lecture, 3 hours laboratory
Grading: letter grade.
An intro to the basic concepts and attendant skills used to assist disabled students in the performance of physical activities in the adapted physical education setting.
Elementary and intermediate instruction and practice in scouting, film analysis, use of equipment and safety procedures. Intro to the organization and administration of a youth football program. **Transfer Status:** Transferable to UC/CSU, see counselor for limitations.

**PEPP 23** 3.0 units
**First Aid and Safety Education**
3 hours lecture.
Grading: letter grade.
Study of safety techniques and the principles involved in rendering prompt and intelligent first aid when necessary. Includes practical demonstration and practice in those procedures essential to meet the requirements of the Standard First Aid and Personal Safety and Cardiopulmonary Resuscitation (CPR) Certificates granted by the American Red Cross. **Transfer Status:** Transferable to UC/CSU, see counselor for limitations.

**PEPP 25** 1.0 unit
**Baseball (Men)**
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade.
Instruction and practice in the basic skills and team play of baseball. **Transfer Status:** Transferable to UC/CSU, see counselor for limitations.

**PEPP 27** 1.0 unit
**Basketball (Men)**
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade.
Instruction and practice in the basic skills and team play of basketball. **Transfer Status:** Transferable to UC/CSU, see counselor for limitations.

**PEPP 29** 1.0 unit
**Cross Country/Track and Field (Men)**
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade.
Fundamental skills in track and field events, including sprinting, middle distance and distance running, relay racing, hurdles, long jump, high jump, discus, javelin and shot put. **Transfer Status:** Transferable to UC/CSU, see counselor for limitations.

**PEPP 31** 1.0 unit
**Football (Men)**
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade.
Instruction and practice in the basic skills and team play of football. **Transfer Status:** Transferable to UC/CSU, see counselor for limitations.

**PEPP 35** 1.0 unit
**Soccer (Men)**
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade.
Instruction and practice in the basic skills and team play of soccer. **Transfer Status:** Transferable to UC/CSU, see counselor for limitations.

**PEPP 37** 1.0 unit
**Volleyball (Men)**
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade.
Instruction and practice in the basic skills and team play of volleyball. **Transfer Status:** Transferable to UC/CSU, see counselor for limitations.

**PEPP 41** 2.0 units
**Aquatics (Coed)**
1 hour lecture, 3 hours laboratory
Grading: letter grade.
Instruction and practice in the fundamental skills of all swimming strokes, diving, team and individual aquatic competitive events and pool maintenance and operation. **Transfer Status:** Transferable to UC/CSU, see counselor for limitations.

**PEPP 51** 1.0 unit
**Golf (Coed)**
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade.
Provides instruction in the fundamental skills, rules and etiquette of golf. **Transfer Status:** Transferable to UC/CSU, see counselor for limitations.

**PEPP 53** 1.0 unit
**Tennis (Coed)**
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade.
Fundamental skills and knowledge of tennis for physical education majors and minors. Students need not enroll concurrently in PEPP 1. **Transfer Status:** Transferable to UC/CSU, see counselor for limitations.

**PEPP 55** 1.0 unit
**Basketball (Women)**
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade.
Instruction and practice in the basic skills and team play of basketball. **Transfer Status:** Transferable to UC/CSU, see counselor for limitations.

**PEPP 61** 1.0 unit
**Soccer (Women)**
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade.
Instruction and practice in the basic skills and team play of soccer. **Transfer Status:** Transferable to UC/CSU, see counselor for limitations.

**PEPP 63** 1.0 unit
**Softball (Women)**
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade.
Instruction and practice in the basic skills and team play of softball. **Transfer Status:** Transferable to UC/CSU, see counselor for limitations.

**PEPP 65** 1.0 unit
**Track and Field (Women)**
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade.
Fundamental skills in track and field events, including sprinting, middle distance and distance running, relay racing, hurdles, long jump, high jump, discus, javelin and shot put. **Transfer Status:** Transferable to UC/CSU, see counselor for limitations.

**PEPP 67** 1.0 unit
**Volleyball (Women)**
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade.
Instruction and practice in the basic skills and team play of volleyball. **Transfer Status:** Transferable to UC/CSU, see counselor for limitations.
Courses of Instruction

PEPP 70AD 1.0 unit
Work Experience Issues — PE — Prof Prep
1 hour lecture.
Corequisite: Enrollment in at least seven units, including PEPP 71AD, 72AD or 73AD and PEPP 70AD.
Grading: letter grade or credit/no credit
Discussion of job-related learning objectives, career goals, employment search and communication skills and problem solving. Transfer Status: Transferable to CSU, see counselor for limitations.

PEPP 71AD 1.0 unit
Work Experience: PE — Professional Prep.
4.1 hours laboratory
Corequisite: Enrollment in at least seven units, including PEPP 70AD and PEPP 71AD.
Grading: letter grade or credit/no credit
An extension of learning experience through employment directly related to the recreation/physical education career of interest to the student. Transfer Status: Transferable to CSU, see counselor for limitations.

PEPP 72AD 2.0 units
Work Experience: PE — Professional Prep
8.3 hours laboratory
Corequisite: Enrollment in at least seven units, including PEPP 70AD and PEPP 72AD.
Grading: letter grade or credit/no credit
An extension of learning experience through employment directly related to the recreation/physical education career of interest to the student. Transfer Status: Transferable to CSU, see counselor for limitations.

PEPP 73AD 3.0 units
Work Experience: PE — Professional Prep
12.5 hours laboratory
Corequisite: Enrollment in at least seven units, including PEPP 70AD and PEPP 73AD.
Grading: letter grade or credit/no credit
An extension of learning experience through employment directly related to the recreation/physical education career of interest to the student. Transfer Status: Transferable to CSU, see counselor for limitations.

PHYSICS

PHYS 2A (Part of CAN PHYS SEQUENCE A) 4.0 units
General Physics
4 hours lecture, 2 hours laboratory
Prerequisite: MATH 30 or 130 and MATH 40.
Grading: letter grade or credit/no credit
Non-calculus course in classical physics, for students not majoring in engineering, covering the basic principles of mass and energy. Emphasizes motion dynamics, conservation laws, heat and wave motion. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PHYS 2B (Part of CAN PHYS SEQUENCE A) 4.0 units
General Physics
4 hours lecture, 2 hours laboratory
Prerequisite: PHYS 2A
Grading: letter grade or credit/no credit
A non-calculus course in classical and modern physics, for students not majoring in engineering, covering the basic principles of mass and energy. Emphasizes electricity, magnetism, optics and modern physics. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PHYS 3A (Part of CAN PHYS SEQUENCE B) 5.0 units
Physics for Sci. & Eng. — Mechanics
5 hours lecture, 2 hours laboratory
Prerequisite: MATH 60
Recommended Preparation: PHYS 2A
Grading: letter grade.
First in a calculus-based sequence for majors in physics, chemistry, math, engineering, astronomy and certain other fields. Includes kinematics, vectors, dynamics, energy, translational and rotational motion, fluids, oscillations and waves. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PHYS 3B (Part of CAN PHYS SEQUENCE B) 4.0 units
Physics for Sci. & Eng. — E & M
4 hours lecture, 2 hours laboratory
Prerequisite: PHYS 3A
Grading: letter grade.
Part of a calculus-based sequence for majors in physics, chemistry, math, engineering, astronomy and certain other fields. Includes electrostatics electric field, Gauss’s law, electric potential. DC circuits, magnetic fields, electromagnetism and AC circuits. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PHYS 3C (Part of CAN PHYS SEQUENCE B) 4.0 units
Physics for Sci. & Eng. — Modern Physics
4 hours lecture, 2 hours laboratory
Prerequisite: PHYS 3A
Grading: letter grade.
Part of a calculus-based sequence for majors in physics, chemistry, math, engineering, astronomy and certain other fields. Includes: thermodynamics, optics interference, diffraction, polarization, special relativity, spectra, basic quantum physics, properties of atoms, nuclear structure and nuclear reactions. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

PHYS 10 4.0 units
Conceptual Physics
4 hours lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Covers classical physics (mechanics, electricity, magnetism and light) and modern physics (relativity and quantum mechanics). Emphasizes understanding basic concepts and their application to explain natural phenomena. Both science and non-science students may take course. Extensive use of demonstrations will be made to teach the physics concept. Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.

PHYSIOLOGY

PHYSI 1 (CAN BIOL 12) 5.0 units
Human Physiology
4 hours lecture, 3 hours laboratory
Prerequisite: ANAT 1, 41 or BIO 60
Recommended Preparation: High school or college chemistry.
Grading: letter grade or credit/no credit
Develop a general understanding of the functioning of the human body and gain experience in the use of standard physiology equipment. Designed for pre-nursing, physical education, physical therapy,
Occupational therapy and life science majors as a background for advanced courses. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**POLITICAL SCIENCE**

**POLSC 1 (CAN GOVT 2) 3.0 units**
Introduction to Government
3 hours lecture.
Grading: letter grade.
An intro to the principles and problems of government and the political process in a diverse society emphasizing the U.S. government and California state and local government. Satisfies the requirement for a course in the U.S. Constitution and the principles of state and local government, required by Title 5 of the California Administrative Code. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**POLSC 1H 3.0 units**
Honors Introduction To Government
3 hours lecture.
Prerequisite: Qualification for the Honors Program.
Grading: letter grade.
An intro to the principles and problems of government and the political process, emphasizing U.S. government and California state and local government. Satisfies the requirement for a course in the Constitution of the United States and the principles of state and local government, as required by Title 5 of the California Administrative Code. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**POLSC 2 3.0 units**
Comparative Government
3 hours lecture.
Grading: letter grade or credit/no credit
A comparative study of constitutional principles, governmental institutions and political processes and problems of selected governments of the world. Satisfies one social science requirement for majors in political science, history, sociology, humanities and life sciences at CSULB and UCLA. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**POLSC 3 3.0 units**
Issues Of American Government
3 hours lecture.
Grading: letter grade or credit/no credit
Intensive study of current issues involving the basic concepts of American democracy, state-federal relationships, government finance, politics and pressure groups, legislative, executive and judicial powers, civil rights and liberties and international ideological conflict. Highly recommended for political science majors at California State University, Long Beach. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**POLSC 4 3.0 units**
World Politics
3 hours lecture.
Grading: letter grade or credit/no credit
An intro to recent and contemporary international relations, foreign policy-making institutions and the politics of selected foreign states. Satisfies one lower division social science requirement for majors in political science, history, sociology, humanities, physical sciences and life sciences at UCLA. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**PSYCHOLOGY**

**PSYCH 1 (CAN PSY 2) 3.0 units**
Introduction to Psychology
3 hours lecture.
Grading: letter grade or credit/no credit
Introduction to human psychology and behavior. A survey of the historical, physiological, and social influences on behavior, emphasizing development, learning, motivation, perception, cognition, mental health, individual and cultural differences, as well as the cause, treatment, and prevention of mental disorders. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**PSYCH 1H 3.0 units**
Honors Introduction to Psychology
3 hours lecture.
Prerequisite: Qualification for the Honors Program.
Grading: letter grade or credit/no credit
Intro to the fields of psychology through consideration of such topics as developmental processes, motivations, emotions, intelligence, learning, thinking, perception, individual differences and the healthy personality. An honors course for superior students which includes extra term paper(s), field trip(s) and additional readings. Transfer Status: Transferable to UC/CSU, see counselor for limitations.
PSYCH 2  4.0 units
Research Methods for Psychology
3 hours lecture, 3 hours laboratory
Prerequisite: PSYCH1
Recommended Preparation: STAT 1
Grading: letter grade or credit/no credit
Provides a basic understanding of research designs and statistical techniques used in psychological investigation. During lab sessions, students collect and analyze data and write a research report. Transfer Status: Transferable to UC/CSU; see counselor for limitations.

PSYCH 4  3.0 units
Personal and Social Development
3 hours lecture.
Grading: letter grade or credit/no credit
Helps students apply psychological principles to everyday life challenges, with an emphasis on growth toward one’s potential. Stresses self-awareness, self-management and development of interpersonal skills. Will engage in activities designed to help develop career goals, find new ways of coping with stress and think about their values. Both psychology majors and non-majors are welcome. Transfer Status: Transferable to CSU; see counselor for limitations.

PSYCH 10  3.0 units
Human Sexuality
3 hours lecture.
Grading: letter grade or credit/no credit
Intro to human sexuality from a psychophysiological perspective. Included are its historic development, cultural, religious and sociological influences, trends, variations, deviations and dysfunctions. Not open to students registered in or with credit in HLED 10. Transfer Status: Transferable to UC/CSU; see counselor for limitations.

PSYCH 11  3.0 units
Social Psychology
3 hours lecture.
Grading: letter grade or credit/no credit
Learn how an individual’s behavior, thoughts and feelings are affected or influenced by the presence, characteristics and actions of others. Explains social interaction, provides description and understanding of interpersonal behavior. Transfer Status: Transferable to UC/CSU; see counselor for limitations.

PSYCH 14  3.0 units
Abnormal Psychology
3 hours lecture
Recommended Preparation: PSYCH1
Grading: letter grade or credit/no credit
A survey of maladaptive behaviors, including neurosis, psychosis, substance abuse, sexual deviation, retardation, sociopathology, mood, personality, anxiety and developmental disorders, cross cultural views of maladaptive behaviors, causes, treatment and prevention. Transfer Status: Transferable to UC/CSU; see counselor for limitations.

PSYCH 33  3.0 units
Psychology of Personality
3 hours lecture.
Grading: letter grade or credit/no credit
An intro to theories of personality, development, motivation, adjustment, effective and ineffective coping patterns, the healthy personality, inter and intra personal relationships, emphasizing practical everyday situations. Transfer Status: Transferable to UC/CSU; see counselor for limitations.

PUBLIC ADMINISTRATION

PUBAD 1  3.0 units
Introduction to Public Administration
3 hours lecture.
Grading: letter grade or credit/no credit
An intro to the principles and practices of public administration in national, state and local government agencies; basic organizational patterns, internal management, administrative functions and responsibilities, the bureaucracy and public policy, career opportunities in government service. Transfer Status: Transferable to CSU; see counselor for limitations.

PUBAD 4  3.0 units
Fundamentals of Supervision
3 hours lecture.
Grading: letter grade or credit/no credit
An intro to the principles of leadership and supervision in local, state and federal government agencies, the role of the supervisor in relation to management, subordinates and the public, basic procedures for planning, organizing and coordinating agency operations, techniques for analyzing and managing personnel and performance. Not open for credit to students registered in or with credit in INDRL41. Transfer Status: Transferable to CSU; see counselor for limitations.

PUBAD 401  6.0 units
Problem Solving in Middle Management
6 hours lecture.
Grading: credit/no credit
An intro to the principles and practices of problem solving in public service at the middle-management level, the role of middle-management supervisors, basic procedures for perceiving, identifying and defining problems; techniques for formulating, legitimizing and applying solutions to problems and skills for analyzing and evaluating results of problem solving.

PUBAD 404  2.0 units
Fundamentals of Supervision-Sgt Supervision
2.2 hours lecture.
Grading: letter grade or credit/no credit
An intro to the principles of leadership and supervision in local law enforcement agencies. The role of the supervisor in relation to management, subordinates and the public, basic procedures for planning, organizing and coordinating agency operations and personnel are discussed. Designed for sergeants.

PUBAD 405  2.0 units
Supervisor Update
2.2 hours lecture.
Grading: credit/no credit
Designed to update supervisory personnel on issues relevant to their agency-specific positions. This course is of particular significance and benefit to persons in supervisory positions in criminal justice agencies.
Courses of Instruction

**RADIO/TELEVISION**

**R/TV 1**

**Introduction to Broadcasting**
3 hours lecture.
Grading: letter grade.
Evaluation of broadcasting as a medium of mass communication through exploration of its history, literature, creative techniques, relationship and impact on society. Transfer Status: Transferable to CSU, see counselor for limitations.

**R/TV 2**

**Intro to Careers in Radio & Television**
2 hours lecture.
Grading: letter grade.
A survey of the various occupations in the radio and television field, including broadcast, cable, industrial and educational areas. Explore employment opportunities, as well as the required skills and personal qualifications necessary for employment. Transfer Status: Transferable to CSU, see counselor for limitations.

**R/TV 3**

**Using MacIntosh Comp Entertainment Indus**
2 hours lecture, 2 hours laboratory
Grading: letter grade.
Learn the Macintosh computer in the radio/television industry. No previous computer knowledge is necessary. Explore the basic operation of the Mac and the manipulation of words, numbers, sounds and graphics (or pictures) in industry applications. The use of spreadsheets, databases and some specialized R/TV applications will be explored. Transfer Status: Transferable to CSU, see counselor for limitations.

**R/TV 4**

**Writing and Production Planning**
3 hours lecture.
Grading: letter grade.
Study of pre-production principles and procedures common to all producers, emphasizing scripting and other writing skills unique to the radio/television/film industry. Transfer Status: Transferable to CSU, see counselor for limitations.

**R/TV 6**

**Critical Television Viewing**
3 hours lecture.
Grading: letter grade or credit/no credit
Analyzes the power of television as a modern tool of mass communication. Among the issues studied will be: the process and effects of mass media on society, the persuasion theories that are used to create programming, the social and psychological implications of televised images on millions of people, the aesthetic dimensions of television and the relationship of this medium to its message. A variety of televised programs will be viewed to develop the ability to critically analyze the programming content that exists today, and this analysis will reveal the limitations of the medium, its production values, its depth and its aesthetic features. Transfer Status: Transferable to CSU, see counselor for limitations.

**R/TV 8**

**Introduction to Media Production**
3 hours lecture, 1 hour laboratory
Grading: letter grade.
Basic principles of production, including operation of equipment and the process of developing a program from the original idea to final editing. Transfer Status: Transferable to CSU, see counselor for limitations. Course articulated with LBUSD.

**R/TV 9**

**Basic Camcorder Production Techniques**
1 hour lecture.
Grading: letter grade or credit/no credit
An intro survey of the basic operation of “camcorder” type video tape recorders; also covers production considerations unique to camcorders. Transfer Status: Transferable to CSU, see counselor for limitations.

**R/TV 12**

**Television Lighting**
1 hour lecture.
Grading: letter grade or credit/no credit
The practical application of the theories of television lighting. Includes: using lighting materials and equipment, the aesthetics of light, experimenting with light and color, lighting for effects and lighting for studio and field production. Transfer Status: Transferable to CSU, see counselor for limitations.

**R/TV 13AD**

**Television Production**
1 hour lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Creation and production of television program material. Produce, direct and crew a variety of projects, such as news, interviews, commercials, dramas, comedies and instructional programs. Transfer Status: Transferable to CSU, see counselor for limitations.

**R/TV 14AD**

**Electronic Field Production**
2 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
The study and application of the technical aspects of video, film and multimedia production in the field. Special attention will be dedicated to successful
Courses of Instruction

Production strategies necessary for the unique problems associated with shooting in the field, such as equipment selection, lighting, audio and the environment. Issues related to acquisition format, such as film versus tape and analog versus digital, will be explored. Students will shoot projects in the field as “stand-alone” productions and as elements for edited productions. Editing will be covered as it relates to field production. Transfer Status: Transferable to CSU, see counselor for limitations.

R/TV 15AC 2.0 units
Advanced Television Production
1 hour lecture, 3 hours laboratory
Recommended Preparation: Audition
Grading: letter grade.
Creation and production of television program material, emphasizing the quality of the finished product. Projects which students produce, direct and crew will be largely of their own choosing. Transfer Status: Transferable to CSU, see counselor for limitations.

R/TV 17AD 1.0 unit
Special Projects in Television
1 hour lecture, 2 hours laboratory
Grading: letter grade.
Plan and execute one’s own project under the instructor’s guidance. May have an opportunity to work as part of a production team in a professional environment. Projects may involve scripting, research, program production or other areas of exploration. Transfer Status: Transferable to CSU, see counselor for limitations.

R/TV 21 3.0 units
Radio Production
3 hours lecture, 1 hour laboratory
Grading: letter grade.
Creation and production of radio program material. Projects include: disc jockey shows, news programs, interviews, commercials, editing, microphone set-up and audio board operation. Other aspects of radio station operation will be covered, such as management, sales, audience analysis and ratings. Transfer Status: Transferable to CSU, see counselor for limitations.

R/TV 25AD 2.0 units
Radio Activity
1 hour lecture, 4 hours laboratory
Grading: letter grade or credit/no credit
An opportunity and responsibility to work in a variety of jobs involved in the operation of the campus radio station (KLBC). Work “on air” and behind the scenes on the radio station. Outside hours are arranged in consultation with the instructor. Transfer Status: Transferable to CSU, see counselor for limitations.

R/TV 30AD 1.5 units
Broadcast Newswriting
1 hour lecture, 2 hours laboratory
Grading: letter grade.
Gain experience in gathering and writing news for broadcast. Learn to write, re-write and edit stories using computers, incorporate sound tracks and visuals into their stories and work the “local angle” or “human interest element.” Some stories may be incorporated into the weekly student TV news show. Transfer Status: Transferable to CSU, see counselor for limitations.

R/TV 34AD 2.0 units
Music Video Production
2 hours lecture, 2 hours laboratory
Recommended Preparation: R/TV 14AD
Grading: letter grade or credit/no credit
An in-depth exam of the components necessary to produce a music video, including completion of a camera ready production proposal and a script of selected projects. Selected projects may be produced. Transfer Status: Transferable to CSU, see counselor for limitations.

R/TV 35AD 2.0 units
Television Activity
1 hour lecture, 4 hours laboratory
Grading: letter grade or credit/no credit
An opportunity and responsibility to work in a variety of jobs involved in the video taping of various college events and/or projects. Projects may be broadcast on college cable channel. Hours are arranged in consultation with the instructor. Transfer Status: Transferable to CSU, see counselor for limitations.

R/TV 36AD 3.0 units
Broadcast News Production
2 hours lecture, 4 hours laboratory
Grading: letter grade or credit/no credit
Study of basic broadcast news and information functions. Covers such material as gathering information, writing, editing and producing for news, sports, editorial, documentary, education, religion and public service programs. Transfer Status: Transferable to CSU, see counselor for limitations.

R/TV 37 3.0 units
Radio/Television Management and Sales
3 hours lecture.
Grading: letter grade.
An overview of the basic elements of broadcast and cablecast management and time sales. Included are: advertising and sales techniques, rating, station promotion, budgets, FCC policies, franchise agreements and negotiations, scheduling, contest considerations, liability elements and people skills. Transfer Status: Transferable to CSU, see counselor for limitations.

R/TV 40AD 2.0 units
On-Camera Performance
1 hour lecture, 3 hours laboratory
Grading: letter grade.
Involves the practical application of performance techniques as applied to working in front of a camera. Performances are video-taped and analyzed which will help the student understand what is necessary in the preparation of audition material. Gain knowledge about each area responsible for a TV production. Transfer Status: Transferable to CSU, see counselor for limitations.

R/TV 70AD 1.0 unit
Work Experience Issues — Radio/TV
1 hour lecture.
Corequisite: Enrollment in at least seven units including R/TV 71AD, 72AD or 73AD and 70AD.
Grading: letter grade or credit/no credit
Seminar related to work experience. Discussion of work experience objectives, career goals, employment search, communication skills and problem solving. Transfer Status: Transferable to CSU, see counselor for limitations.
Courses of Instruction

R/TV 71AD 1.0 unit
Work Experience: Radio and Television
4.2 hours laboratory
Corequisite: Enrollment in at least seven units including R/TV 70AD and 71AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment directly related to the industry. Transfer Status: Transferable to CSU, see counselor for limitations.

R/TV 72AD 2.0 units
Work Experience: Radio and Television
8.3 hours laboratory
Corequisite: Enrollment in at least seven units including R/TV 70AD and 72AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment directly related to the industry. Transfer Status: Transferable to CSU, see counselor for limitations.

R/TV 73AD 3.0 units
Work Experience: Radio and Television
12.5 hours laboratory
Corequisite: Enrollment in at least seven units including R/TV 70AD and 73AD.
Grading: letter grade or credit/no credit
Vocational learning experiences through employment directly related to the industry. Transfer Status: Transferable to CSU, see counselor for limitations.

REAL ESTATE

REAL 78 3.0 units
Real Estate Economics
3 hours lecture.
Grading: letter grade.
Deals with trends and factors affecting the value of real estate, the nature and classification of land economics, the development of property, construction and subdivision, economic values and real estate evaluation, real estate cycles and business fluctuations, residential market trends, real property and special-purpose property trends. Transfer Status: Transferable to CSU, see counselor for limitations.

REAL 80 3.0 units
Real Estate Principles
3 hours lecture.
Grading: letter grade.
Covers basic laws and principles of California real estate; gives understanding, background and terminology for advanced study in specialized courses. Assists those preparing for real estate license exams. Transfer Status: Transferable to CSU, see counselor for limitations.

REAL 81A 3.0 units
Real Estate Practices
3 hours lecture.
Grading: letter grade.
Operational practices in real estate roles and brokerage, including listing, prospecting, advertising, financing, sales techniques, escrow and ethics. Applies toward State’s educational requirements for the broker’s exam. Transfer Status: Transferable to CSU, see counselor for limitations.

REAL 83A 3.0 units
Legal Aspects of Real Estate
3 hours lecture.
Grading: letter grade.
A study of California real estate law and related legislation governing real estate transactions in California. Applied toward educational requirements for the broker’s exam. Transfer Status: Transferable to CSU, see counselor for limitations.

REAL 84 3.0 units
Mortgage Brokering/Lending in California
3 hours lecture.
Recommended Preparation: REAL 80
Grading: letter grade.
An intro to the mortgage brokering operation from office setup, loan processing by computer, lending regulations, types of loans, from A to D paper, loan submission, quality control, FICO credit scoring, loan packaging and shipping. Transfer Status: Transferable to CSU, see counselor for limitations.

REAL 85 3.0 units
Real Estate Appraisal
3 hours lecture.
Grading: letter grade.
Covers the purposes of appraisals, the appraisal process and the different approaches, methods and techniques to determine the value of various types of property. Emphasizes residential and single-unit property. Transfer Status: Transferable to CSU, see counselor for limitations.

REAL 86 3.0 units
Advanced Real Estate Appraisal
3 hours lecture.
Prerequisite: REAL 85
Recommended Preparation: REAL 78 and 87
Grading: letter grade.
A continuation of the appraisal techniques studied in REAL 85. Covers property other than the single-family residence. The income approach and capitalization techniques are emphasized. An in-depth study of discounted cash flow and the valuation of partial and leasehold interests. Transfer Status: Transferable to CSU, see counselor for limitations.

REAL 87 3.0 units
Real Estate Finance
3 hours lecture.
Grading: letter grade.
An analysis of real estate financing, lending policies and problems in financing transactions in residential, apartment, commercial and special purpose properties. The methods of financing properties are emphasized. Transfer Status: Transferable to CSU, see counselor for limitations.

REAL 88 3.0 units
Real Estate Exchange
3 hours lecture.
Grading: letter grade.
A comprehensive study of the practices and procedures in handling the exchange of properties. Transfer Status: Transferable to CSU, see counselor for limitations.

REAL 89 3.0 units
Tax Aspects of Real Estate Transactions
3 hours lecture.
Grading: letter grade.
A study of the current tax laws related to real estate transactions in California. Transfer Status: Transferable to CSU, see counselor for limitations.
Grading: letter grade.
A comprehensive study of the influence of taxation on real estate transactions. Transfer Status: Transferable to CSU, see counselor for limitations.

REAL 91  3.0 units
Real Estate Update
3 hours lecture.
Prerequisite: Real estate license
Grading: letter grade.
An update in real estate which provides 45 hours of continuing education. Topics include finance, land acquisition and development, foreclosure procedures, trust deeds, market research techniques, escrow procedures, office management, syndication, advertising and sales techniques, mortgage update, leasing, contracts and closing procedures, title insurance, appraisal, ethics and investment analysis. Transfer Status: Transferable to CSU, see counselor for limitations.

REAL 92A  3.0 units
Escrows and Land Titles
3 hours lecture.
Grading: letter grade.
Learn to take, handle and close simple escrows, purpose and services of escrow, property and property rights, acquisition, descriptions, encumbrances, liens, charges against property, forms, deeds, transfer, recording system and title company practices. Transfer Status: Transferable to CSU, see counselor for limitations.

REAL 92B  3.0 units
Escrows And Land Titles
3 hours lecture.
Prerequisite: REAL 92A
Grading: letter grade.
Learn to take, handle and close simple escrows, purpose and services of escrow, property and property rights, acquisition, descriptions, encumbrances, liens, charges against property, forms, deeds, transfer, recording system and title company practices will be discussed. Transfer Status: Transferable to CSU, see counselor for limitations.

REAL 93  3.0 units
Real Estate Investments
3 hours lecture.
Grading: letter grade.
Nature and scope of investments, brokerage, income property operations, taxation, cash flow analysis, measuring returns, financing and investment strategies. Qualifies for 45 hours of continuing education credit. Transfer Status: Transferable to CSU, see counselor for limitations.

REAL 94  3.0 units
Office Management
3 hours lecture.
Grading: letter grade.
Designed to improve proficiency in serving consumers through real estate office management and organization. Transfer Status: Transferable to CSU, see counselor for limitations.

REAL 253  3.0 units
Property Management
3 hours lecture.
Grading: letter grade.
Basic principles and practices of successful apartment house management.

REAL 254  3.0 units
Industrial/Commercial Real Estate
3 hours lecture
Recommended Preparation: REAL 80
Grading: letter grade.
Provides the knowledge and mechanics for a systematic approach to entering the field of industrial/commercial real estate. Augments knowledge for advancement and uncovers greater opportunities.

REAL 270AD  1.0 unit
Work Experience Issues — Real Estate
1 hour lecture.
Corequisite: Enrollment in at least seven units including REAL 271AD, 272AD or 273AD and 270AD.
Grading: letter grade or credit/no credit
Discussion of work experience objectives, career goals, employment adjustment and problem areas encountered on the job.

REAL 271AD  1.0 unit
Work Experience — Real Estate
4.1 hours laboratory
Corequisite: Enrollment in at least seven units including REAL 270AD and 271AD.
Grading: letter grade or credit/no credit
An extension of vocational learning through employment directly related to one’s occupational goal. One unit of credit shall be granted for every 75 hours per semester. Maximum of twelve units.

REAL 272AD  2.0 units
Work Experience — Real Estate
8.3 hours laboratory
Corequisite: Enrollment in at least seven units including REAL 270AD and 272AD.
Grading: letter grade or credit/no credit
An extension of vocational learning through employment directly related to one’s occupational goal. One unit of credit shall be granted for every 75 hours per semester. Maximum of twelve units.

REAL 273AD  3.0 units
Work Experience — Real Estate
12.5 hours laboratory
Corequisite: Enrollment in at least seven units including REAL 270AD and 273AD.
Grading: letter grade or credit/no credit
An extension of vocational learning through employment directly related to one’s occupational goal. One unit of credit shall be granted for every 75 hours per semester. Maximum to twelve units.

SHEET METAL

SHMET 201  10.0 units
Sheet Metal 1
6 hours lecture, 12 hours laboratory
Grading: letter grade or credit/no credit
Includes material identification, measurement, basic shop math, intro to parallel line surface development and basic sheet metal projects. Intro to safety operations, hand and power machinery, oxy-acetylene and spot welding and soft soldering are also discussed.
### SHMET 202 10.0 units
**Sheet Metal 2**
6 hours lecture, 12 hours laboratory  
Grading: letter grade or credit/no credit  
Includes safety practices, radial line surface development and related metal project fabrication, advanced oxy-acetylene welding, intro to hard soldering and production shop machine set-up.

### SHMET 203 10.0 units
**Sheet Metal 3**
6 hours lecture, 12 hours laboratory  
Grading: letter grade or credit/no credit  
Safety practices, intro to inert gas arc welding, intro to triangulation surface development, exotic metals fabrication and stainless steel are covered.

### SHMET 204 10.0 units
**Sheet Metal 4**
6 hours lecture, 12 hours laboratory  
Grading: letter grade or credit/no credit  
Teaches safety practices and advanced live projects incorporating surface development, fabrication and inert gas welding.

### SHMET 220A 5.0 units
**Surface Development & Fabrication 1**
4 hours lecture, 3 hours laboratory  
Grading: letter grade or credit/no credit  
Designed for people working in or wishing to enter the fields of air conditioning, refrigeration, heating, ventilating and aircraft or industrial fabrication. A comprehensive course in sheet metal layout, including radial line and triangulation. Individualized hands-on experience in tool set-up and job shop performance equal to industrial standards.

### SHMET 220B 5.0 units
**Surface Development & Fabrication 2**
4 hours lecture, 3 hours laboratory  
Grading: letter grade or credit/no credit  
Designed for people working in or wishing to enter the fields of air conditioning, refrigeration, heating, ventilating and aircraft or industrial fabrication. A comprehensive course in sheet metal layout, including radial line and triangulation. Individualized hands-on experience in tool set-up and job shop performance equal to industrial standards.

### SHMET 220C 5.0 units
**Surface Development & Fabrication 3**
4 hours lecture, 3 hours laboratory  
Grading: letter grade or credit/no credit  
Designed for people working in or wishing to enter the fields of air conditioning, refrigeration, heating, ventilating and aircraft or industrial fabrication. A comprehensive course in sheet metal layout, including radial line and triangulation. Individualized hands-on experience in tool set-up and job shop performance equal to industrial standards.

### SHMET 220D 5.0 units
**Surface Development & Fabrication 4**
4 hours lecture, 3 hours laboratory  
Grading: letter grade or credit/no credit  
Designed for people working in or wishing to enter the fields of air conditioning, refrigeration, heating, ventilating and aircraft or industrial fabrication. A comprehensive course in sheet metal layout, including radial line and triangulation. Individualized hands-on experience in tool set-up and job shop performance equal to industrial standards.

### SOCIAL SCIENCE

#### SOCSC 1 3.0 units
**Comparative World Cultures**
3 hours lecture.  
Grading: letter grade or credit/no credit  
Compares through analysis selected major civilizations and seeks to respond to the current need for intercultural understanding in an interdependent world. Interdisciplinary team of faculty, drawn from the humanities and the social sciences, select major cultures from the ancient, medieval and modern periods of world history which are examined thematically. Such themes include: how distinctive historical, regional and local cultures design, share, reproduce and meet basic biological, material and symbolic needs and experience both continuity and change through internal realignments of their social, economic, political and intellectual institutions or by external contact with other peoples. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

#### SOCSC 1H 3.0 units
**Honors Comparative World Cultures**
3 hours lecture.  
Prerequisite: Qualification for the Honors program.  
Grading: letter grade or credit/no credit  
Describes how selected major cultures meet similar basic needs, such as establishing value systems, socialization of children, meeting material needs and perceiving persons in other cultures. An interdisciplinary approach drawing from both the humanities and social sciences. Seeks to respond to the current need for intercultural understanding in an interdependent world. Not open for credit to students registered in or with credit in HUMAN1 or 1H. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

#### SOCSC 7 3.0 units
**American Pluralism and Identity**
3 hours lecture.  
Grading: letter grade or credit/no credit  
Explores the multicultural nature of American society, using more than one discipline. Using the humanities to analyze the creativity of each ethnic group as they constructed artistic, literary, musical, philosophical and
<table>
<thead>
<tr>
<th>Course Title</th>
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<th>Description</th>
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<tbody>
<tr>
<td>Courses of Instruction</td>
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<tr>
<td><strong>SOCIOLOGY</strong></td>
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<tr>
<td>SOCIO 1 (CAN SOC 2)</td>
<td>3.0</td>
<td><strong>Introduction to Sociology</strong>                                                                                                 3 hours lecture.</td>
<td><strong>Grading: letter grade or credit/no credit</strong></td>
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<tr>
<td>SOCIO 2 (CAN SOC 4)</td>
<td>3.0</td>
<td><strong>Modern Social Problems</strong>                                                                                                 3 hours lecture.</td>
<td><strong>Grading: letter grade or credit/no credit</strong></td>
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<tr>
<td>SOCIO 11</td>
<td>3.0</td>
<td><strong>Race &amp; Ethnic Relations in the U.S.</strong>                                                                                                          3 hours lecture.</td>
<td><strong>Grading: letter grade</strong></td>
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<tr>
<td>SOCIO 12</td>
<td>3.0</td>
<td><strong>Crime and Delinquency</strong>                                                                                                               3 hours lecture.</td>
<td><strong>Grading: letter grade</strong></td>
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<tr>
<td>SOCIO 13</td>
<td>3.0</td>
<td><strong>Sociology of Latinos</strong>                                                                                                                3 hours lecture.</td>
<td><strong>Grading: letter grade</strong></td>
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<tr>
<td><strong>SPANISH</strong></td>
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<tr>
<td>SPAN 1 (CAN SPAN 2)</td>
<td>5.0</td>
<td><strong>Elementary Spanish</strong>                                                                                                                  5 hours lecture, 1 hour laboratory.</td>
<td><strong>Grading: letter grade or credit/no credit</strong></td>
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<tr>
<td>SPAN 1A (part of CAN SPAN 2)</td>
<td>3.0</td>
<td><strong>Elementary Spanish 1A</strong>                                                                                                               3 hours lecture.</td>
<td><strong>Grading: letter grade or credit/no credit</strong></td>
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<tr>
<td>SPAN 1B (part of CAN SPAN 2)</td>
<td>2.0</td>
<td><strong>Elementary Spanish 1B</strong>                                                                                                                2 hours lecture, 1 hour laboratory.</td>
<td><strong>Prerequisite: SPAN 1A</strong></td>
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A survey of the sociology of Latinos in the United States, with particular focus on the Mexican culture and experience. Includes a review of the immigration experience of various Latino groups. Includes the types and consequences of discrimination and prejudice as well as Chicano responses to racism. Theories of assimilation, pluralism, internal colonialism and a Marxist variant of race relations are reviewed. Emphasizes culture, class, gender and race. Specific issues to be covered include: bilingual education, affirmative action, socioeconomic status, immigration and the value of family. **Transfer Status: Transferable to UC/CSU, see counselor for limitations.**

**SOCIOLOGY**

**SOCIO 1 (CAN SOC 2) 3.0 units**

**Introduction to Sociology**

- 3 hours lecture.
- Grading: letter grade or credit/no credit
- Study human behavior through an understanding of social organization: the role of culture, the development of personality, the function of group life and social institutions, the social processes and social interaction, factors in social change and collective behavior. **Transfer Status: Transferable to UC/CSU, see counselor for limitations.**

**SOCIO 2 (CAN SOC 4) 3.0 units**

**Modern Social Problems**

- 3 hours lecture.
- Grading: letter grade or credit/no credit
- All identification and analysis of contemporary social problems in the U.S., using the perspective and methodology of the social sciences. Among the topics considered are violence, crime, poverty, sexism, racism, rapid social change, addiction, abuse and alienation. **Transfer Status: Transferable to UC/CSU, see counselor for limitations.**

**SOCIO 11**

**Race & Ethnic Relations in the U.S.**

- 3 hours lecture.
- Grading: letter grade.
- The sociological study of diverse racial and ethnic groups in the U.S., including Latino, Asian American, African American and Native American sub-groups. Analysis of migration patterns, stratification, gender, social movements and inter- and intra-group relations. Also an exam of how social, political, economic and historical forces affect contemporary race and ethnic relations. **Transfer Status: Transferable to UC/CSU, see counselor for limitations.**

**SOCIO 12**

**Crime and Delinquency**

- 3 hours lecture.
- Grading: letter grade.
- An intro to major types of criminal behavior, characteristics of offenders, factors which contribute to crime and delinquency, the criminal justice process, the human process of law enforcement, the courts, probation, parole and institutions. Includes changes in crime control and treatment processes and the role of society. Not open for credit to students registered in or with credit in ADJUS12. **Transfer Status: Transferable to UC/CSU, see counselor for limitations.**

**SOCIO 13**

**Sociology of Latinos**

- 3 hours lecture.
- Grading: letter grade.

**SPANISH**

**SPAN 1 (CAN SPAN 2) 5.0 units**

**Elementary Spanish**

- 5 hours lecture, 1 hour laboratory
- Grading: letter grade or credit/no credit
- Intro to the Spanish language, emphasizing listening, comprehension, conversation, reading and writing skills to develop control of the basic sounds, forms and structure of Spanish. Topics for conversation are everyday life situations and issues in the Hispanic world. Not recommended for native speakers of Spanish or students who have completed one year of high school Spanish with a grade of B or better. **Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.**

**SPAN 1A (part of CAN SPAN 2) 3.0 units**

**Elementary Spanish 1A**

- 3 hours lecture.
- Grading: letter grade or credit/no credit
- Intro to the Spanish language, emphasizing listening, comprehension, conversation, reading and writing skills to develop control of the basic sounds, forms and structure. Topics for conversation are everyday life situations and issues in the Hispanic world. Not recommended for native speakers of Spanish or students who have completed one year of high school Spanish with a grade of B or better or equivalent. **Transfer Status: Transferable to UC/CSU, see counselor for limitations.**

**SPAN 1B (part of CAN SPAN 2) 2.0 units**

**Elementary Spanish 1B**

- 2 hours lecture, 1 hour laboratory
- **Prerequisite: SPAN 1A.**
- Grading: letter grade or credit/no credit
- Intro to the Spanish language, emphasizing listening, comprehension, conversation, reading and writing skills to develop control of the basic sounds, forms and structure of Spanish. Topics for conversation are everyday life situations and issues in the Hispanic world. Not recommended for native speakers of Spanish or students who have completed one year of high school Spanish with a grade of B or better or equivalent. **Transfer Status: Transferable to UC/CSU, see counselor for limitations.**
Spanish with a grade of B or better. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**SPAN 2 (CAN SPAN 4) 5.0 units**

**Elementary Spanish**
5 hours lecture, 1 hour laboratory
Prerequisite: SPAN 1 or SPAN 1A-B or recent completion of one year of high school Spanish.
Grading: letter grade or credit/no credit
Continuation of the study of basic grammar forms, emphasizing listening and speaking, reading and writing, based on modern topical material. Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.

**SPAN 2A (part of CAN SPAN 4) 3.0 units**

**Elementary Spanish 2A**
3 hours lecture.
Prerequisite: SPAN 1, 1A-B or recent completion of one year of high school Spanish.
Grading: letter grade or credit/no credit
Continuation of the study of basic grammar forms, emphasizing listening and speaking, reading and writing, based on modern topical material. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**SPAN 2B (part of CAN SPAN 4) 2.0 units**

**Elementary Spanish 2B**
2 hours lecture, 1 hour laboratory
Prerequisite: SPAN 2A.
Grading: letter grade or credit/no credit
Continuation of the study of basic grammar forms, emphasizing listening, speaking, reading and writing, based on modern topical material. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**SPAN 3 (CAN SPAN 8) 5.0 units**

**Intermediate Spanish**
5 hours lecture.
Prerequisite: SPAN 2, 2A-B or recent completion of two years of high school Spanish.
Grading: letter grade or credit/no credit
A review of grammar, an intensive study of idiomatic expressions and vocabulary, based on the reading of short stories, articles and situational dialogues which reflect Spanish culture and the development of reading and writing. Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.

**SPAN 3H 5.0 units**

**Honors Intermediate Spanish**
5 hours lecture.
Prerequisite: Qualification for the Honors program. SPAN 2, 2A-B or recent completion of two years of high school Spanish.
Grading: letter grade or credit/no credit
Covers all past verb tenses and present and past subjunctive moods; idiomatic expressions and vocabulary, based on the reading of short articles, stories and situational dialogues which reflect Spanish culture; and the development of reading and listening comprehension, as well as speaking and writing skills. Transfer Status: Transferable to CSU, see counselor for limitations.

**SPAN 4 (CAN SPAN 10) 5.0 units**

**Intermediate Spanish**
5 hours lecture.

Prerequisite: SPAN 3 or recent completion of three years of high school Spanish.
Grading: letter grade or credit/no credit
Continuation of the review of Spanish grammar, emphasizing a more advanced structure. Reading of short stories and literary selections by famous contemporary Spanish authors. Extensive practice in comprehension, speaking, writing and reading. Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.

**SPAN 8AD 2.0 units**

**Spoken Spanish**
3 hours lecture.
Prerequisite: SPAN 1 or 1A-1B and 2 or 2A-2B
Grading: letter grade or credit/no credit
Designed to improve comprehension, structure, oral expression and fluency in Spanish as used in travel, in the home, in school and in business. Emphasizes vocabulary, idioms and language patterns fundamental to an active use of Spanish. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**SPAN 9 5.0 units**

**Spanish for Spanish Speakers**
5 hours lecture
Recommended Preparation: Fluency in spoken Spanish.
Grading: letter grade or credit/no credit
Covers Hispanic culture, values, art and language, using a variety of literary selections, film, music, newspaper and magazines by famous Spanish, Latin American and Latino authors in the U.S. Intensive reading, analysis, comparison and contrast of the cultural values, found in short stories, essays, articles, video, film and documentaries, will serve as a window into the Hispanic imagination. This exploration will reveal the intellectual and cultural connections and variations of the Hispanic culture in Spain, Latin America and the U.S. and will serve as a springboard to perfect the literary and oral skills of native Spanish speakers. Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.

**SPAN 10 5.0 units**

**Spanish for Spanish Speakers**
5 hours lecture
Recommended Preparation: SPAN 9 or fluency in spoken Spanish.
Grading: letter grade or credit/no credit
Continuation of SPAN 9; intensive study of Hispanic culture, values, art and language using a variety of literary selections, film, music, newspaper and magazines by famous Spanish, Latin American and Latino authors in the U.S. Continuation of the reading, writing process and grammar review. Emphasizes syntax and literary styles and techniques. Study not only the intellectual and cultural connections and variations of the Hispanic culture in Spain, Latin America and the U.S. but also the stylistic and ideological differences between contemporary writers. The cultural and reading material will serve to focus on the development and understanding of writing styles and techniques that will enable the Spanish speaker to apply these techniques to creative writing and use argument and debate skills in a novel situation. Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.
Courses of Instruction

SPAN 25A 3.0 units
Advanced Spanish: Culture in Literature
3 hours lecture.
Prerequisite: SPAN 4
Grading: letter grade or credit/no credit
The study of the Spanish culture in short stories, fables, biographies, etc. Grammar review stressing oral and written composition. Practice for fluency. Emphasizes a career related language with a choice of collateral readings relative to business, science or humanities. Attention is given to developing vocabulary and standard forms appropriate to individual career objectives. Outside reading and reporting in the respective field of study. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

SPAN 25B 3.0 units
Advanced Spanish: History
3 hours lecture.
Prerequisite: SPAN 4
Grading: letter grade or credit/no credit
Study the history of Spanish speaking countries from early to present time through texts from history books and grammar review stressing oral and written composition. Practice for fluency. Emphasizes a career related language with a choice of collateral readings relative to business, science or humanities. Attention is given to developing vocabulary and standard forms appropriate to individual career objectives. Outside reading and reporting in the respective field of study. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

SPAN 25C 3.0 units
Advanced Spanish: Politics, Current Event
3 hours lecture.
Prerequisite: SPAN 4
Grading: letter grade or credit/no credit
A study of political and other current events through newspaper and magazine articles. Grammar review stressing oral and written composition. Practice for fluency. Emphasizes a career related language with a choice of collateral readings relative to business, science or humanities. Attention is given to developing vocabulary and standard forms appropriate to individual career objectives. Outside reading and reporting in the respective field of study. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

SPAN 25D 3.0 units
Advanced Spanish: Literature
3 hours lecture.
Prerequisite: SPAN 4
Grading: letter grade or credit/no credit
A study of different literary genres through short novels, fairy tales, poems, etc. Grammar review stressing oral and written composition. Practice for fluency. Emphasizes a career related language with a choice of collateral readings relative to business, science or humanities. Attention is given to developing vocabulary and standard forms appropriate to individual career objectives. Outside reading and reporting in the respective field of study. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

SPAN 404 3.0 units
Spanish for Health Personnel
3 hours lecture.

Grading: credit/no credit
Designed for those who need basic Spanish conversational skills and vocabulary in a health field. Provides awareness of Hispanic customs and culture.

SPEECH

SP 10 (CAN SPCH 4) 3.0 units
Elements of Public Speaking
3 hours lecture.
Grading: letter grade or credit/no credit
Theory and practice in the construction and delivery of the extemporaneous speech. Required of all public speaking majors and minors. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

SP 19AD 1.0 unit
Speech Activity: Individual Events
10 hours laboratory
Grading: letter grade or credit/no credit
Through intercollegiate speech competition, perfect speaking skills, develop critical thinking and gain increased confidence. Transfer Status: Transferable to CSU, see counselor for limitations.

SP 20 (CAN SPCH 2) 3.0 units
Elements of Interpersonal Communication
3 hours lecture.
Grading: letter grade or credit/no credit
An experiential approach to the study of the process of communication at both the intrapersonal and interpersonal levels. Time will be devoted to both the study of recent theories and experiments within the field of speech communication and their practical applications as related to perception, listening, non-verbal, conflict resolution and one’s self-concept. Transfer Status: Transferable to CSU, see counselor for limitations.

SP 25 3.0 units
Elements of Intercultural Communication
3 hours lecture.
Grading: letter grade or credit/no credit
Study of the relationship between culture and communication, emphasizing social, linguistic, psychological and non-verbal variables. Includes problems in the practice of intercultural communication. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

SP 30 (CAN SPCH 10) 3.0 units
Elements of Group Communication
3 hours lecture.
Grading: letter grade or credit/no credit
The theory and practice of basic principles and techniques of both small group and public group communication. Problem solving, creative thinking, conflict resolution, roles and skills for group interaction and leadership are employed. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

SP 31 3.0 units
Elements Of Leadership Communication
3 hours lecture.
Grading: letter grade or credit/no credit
Explore definitions and theories of leadership, purposes and functions of leaders in various settings and provide opportunities for the practical application of the
Courses of Instruction

**SPEECH LANGUAGE PATHOLOGY ASSISTANT**

**SLPA 10**
1.0 unit
Intro to Speech Language Pathology Asst
2 hours lecture.
Grading: letter grade.
Intro to Speech Language Pathology Assistant career. Professional standards and scope of responsibilities. Legal and ethical issues along with the requirements for management of individuals with speech-language and hearing disorders. Considerations for cultural, ethic and linguistic diversity. Includes interdisciplinary and supervisory relationships, public interaction, individual responsibilities and compliance with both governmental and industry regulations. **Transfer Status: Transferable to CSU, see counselor for limitations.**

**STATISTICS**

**STAT 1 (CAN STAT 2)**
3.0 units
Elementary Statistics
3 hours lecture.
Prerequisite: MATH 130 or one year high school intermediate algebra with a grade of B or better as reflected by the second semester grade or qualification through the math assessment process.
Grading: letter grade.
A survey of descriptive methods of statistics, including measures of central tendency, dispersion and correlation and basic probability applications, in addition to the binomial and normal probability distributions. Emphasizes inferential techniques, including estimation, hypothesis testing and linear regression. **Transfer Status: Transferable to UC/CSU, see counselor for limitations.**

**TECHNOLOGY**

**TEC 60**
3.0 units
Computer Aided Design And Drafting(CADD)
2 hours lecture, 4 hours laboratory
Prerequisite: ARCHT60 or DRAFT51A
Grading: letter grade.
An intro and an opportunity to become familiar with the process of computer aided design. Enhance employment opportunities as a CADD operator. Not open for credit to students registered in or with credit in DRAFT 55. **Transfer Status: Transferable to CSU, see counselor for limitations.**
THEATRE ARTS

TART  1 (CAN DRAM 8)  3.0 units
Acting 1 — Introduction to Acting
3 hours lecture, 1 hour laboratory
Corequisite: TART 51AD
Grading: letter grade or credit/no credit
Intro to acting through the process of personalization.
The actor discovers and explores in him/herself qualities
and experiences which are legitimate dimensions of the
role he/she is creating. Explores the concept of
personalization through relaxations, concentration,
sensory awareness, imagination and acting exercises as
the student acquires basic insights into acting for the
theatre. Transfer Status: Transferable to UC/CSU, see
counselor for limitations. Course articulated with
LBUSD.

TART  1B  2.0 units
Acting 1 — Movement
2 hours lecture, 1 hour laboratory
Corequisite: TART 51AD
Recommended Preparation: TART 1 (may be taken
concurrently)
Grading: letter grade or credit/no credit
An intro to the use of the human body as an instrument of
expression. The study and application of the basic
theories and principles of stage movement through the
use of lecture and class exercise. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

TART  1C (CAN DRAM 6)  2.0 units
Acting 1 — Voice
2 hours lecture, 1 hour laboratory
Corequisite: TART 51AD.
Recommended Preparation: TART 1 (May be taken
concurrently) & TART 1B
Grading: letter grade or credit/no credit
Provides a lucid view of the voice as an instrument of
human communication and through a series of exercises
to free, develop and strengthen that voice so that the
actor’s unique sensibilities may be fully expressed through it. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

TART  1D  2.0 units
Acting 1 — Improvisation
2 hours lecture, 1 hour laboratory
Corequisite: TART 51AD
Recommended Preparation: TART 1(May be taken
concurrently)
Grading: letter grade or credit/no credit
Explore the various applications of theatre
improvisation. Drawing from both playwrights and
imagination, the actor will create fully realized
characters, develop and analyze scenes. Mental agility,
spontaneity, thinking on your feet and stage confidence
will be emphasized. Transfer Status: Transferable to
UC/CSU, see counselor for limitations.

TART  2  3.0 units
Acting 2 — Technique & Characterization
3 hours lecture, 1 hour laboratory
Prerequisite: TART 1
Corequisite: TART 51AD
Recommended Preparation: Completion or concurrent
enrollment in TART 25, 27 or 30
Grading: letter grade or credit/no credit
An investigation and development of a character that
further strengthens techniques of personalization, role
analysis and character motivation while including such
disciplines as sense memory and improvisation.
Additionally, investigation of the physical life of a
character is emphasized, together with the technical and
imaginative development of voice and body skills as a
means of achieving fully realized characterizations
(continued scene study, utilizing the works of major
playwrights within the last hundred years). Transfer
Status: Transferable to UC/CSU, see counselor for limitations.

TART  2A  2.0 units
Acting 2 — The Spoken Text
2 hours lecture, 1 hour laboratory
Prerequisite: TART 1C.
Grading: letter grade or credit/no credit
Preparation and presentation of a varied range of spoken
texts to free, develop and strengthen the student actor’s
voice so that the actor’s unique sensibilities may be fully
expressed through it. Transfer Status: Transferable to
UC/CSU, see counselor for limitations.

TART  2B  2.0 units
Acting 2 — The Spoken Text
2 hours lecture, 1 hour laboratory
Prerequisite: TART 1C.
Corequisite: TART 51AD.
Grading: letter grade or credit/no credit
Preparation and presentation of a varied range of spoken
texts to free, develop and strengthen the student actor’s
voice so that the actor’s unique sensibilities may be fully
expressed through it. Transfer Status: Transferable to
UC/CSU, see counselor for limitations.

TART  2C  2.0 units
Acting 2 — Movement, Mime and Mask
2 hours lecture, 1 hour laboratory
Corequisite: TART 51AD.
Recommended Preparation: TART 1B (May be taken
concurrently)
Grading: letter grade or credit/no credit
Advanced application of the theory and principles of
stage movement within specialized areas, such as mime,
mask characterization, period movement styles and
stage combat. Class exercises and lectures. Transfer
Status: Transferable to UC/CSU, see counselor for limitations.

TART  2D  2.0 units
Acting 2 — Movement, Mime and Mask
2 hours lecture, 1 hour laboratory
Prerequisite: TART 1B.
Corequisite: TART 51AD.
Grading: letter grade or credit/no credit
Advanced application of the theory and principles of
stage movement within specialized areas, such as mime,
mask characterization, period movement styles and
stage combat. Class exercises and lectures. Transfer
Status: Transferable to UC/CSU, see counselor for limitations.

TART  3A  3.0 units
Acting 3 — Scene Study
3 hours lecture, 1 hour laboratory
Corequisite: TART 51AD
Recommended Preparation: TART 2 and TART 25
Grading: letter grade or credit/no credit
While utilizing contemporary and classical scene selections, emphasizing international playwrights of the 19th and 20th century, develop specific performance skills and acting techniques to heighten the intensity of the acting experience for the serious theatre student. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**TART 3B** 3.0 units

**Acting 3 — Scene Study**
3 hours lecture, 1 hour laboratory
Prerequisite: TART 3A
Corequisite: TART 51AD.
Grading: letter grade or credit/no credit

While utilizing contemporary and classical scene selections, emphasizing international playwrights of the 19th and 20th century, develop specific performance skills and acting techniques to heighten the intensity of the acting experience for the serious theatre student. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**TART 4** 3.0 units

**Acting Workshop — Style**
2 hours lecture, 3 hours laboratory
Prerequisite: TART 3A or 3B
Grading: letter grade or credit/no credit

Individual studies and exercises to develop freedom and imagination in the preparation and performance of classical and contemporary dramatic material. Scenes, cuttings and short plays. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**TART 12** 3.0 units

**Intermediate Acting**
3 hours lecture, 1 hour laboratory
Prerequisite: TART 1
Grading: letter grade or credit/no credit

For the student for whom acting is an avocation: an investigation and development of character that further strengthens techniques of personalization, role analysis and character motivation while including such disciplines as sense memory and improvisation. Additionally, investigation of the physical life of a character is emphasized towards achieving fully realized characterizations. Scene study is continued, utilizing the works of major playwrights within the last hundred years. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**TART 13A** 3.0 units

**Advanced Acting**
3 hours lecture, 1 hour laboratory
Prerequisite: TART 12
Grading: letter grade or credit/no credit

For the student for whom acting is an avocation: developing specific performance skills and acting techniques to heighten the intensity of the acting experience. Exercises to develop freedom and imagination are also emphasized while utilizing contemporary and classical scene selections and international playwrights. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**TART 13B** 3.0 units

**Advanced Acting**
3 hours lecture, 1 hour laboratory
Prerequisite: TART 13A.
Grading: letter grade or credit/no credit

For the student for whom acting is an avocation: developing specific performance skills and acting techniques to heighten the intensity of the acting experience. Exercises to develop freedom and imagination are also emphasized while utilizing contemporary and classical scene selections and international playwrights. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**TART 25** 3.0 units

**Introduction to Theatre**
3 hours lecture.
Corequisite: TART 51AD
Grading: letter grade or credit/no credit

A critical analysis of theatre from an audience perspective. Elements of play production from the dramatic structure, style and historical perspective of the script to the final presentation before an audience will be explored. Included are reading, lectures and discussions on the theory and practice of play writing, producing, acting, directing, criticism, theatre architecture, set design, costume design, lighting design and the use of props. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**TART 30** 3.0 units

**Introduction to Dramatic Literature**
3 hours lecture.
Corequisite: TART 51AD
Grading: letter grade or credit/no credit

An intro to the dramatic literature of the Western world, including American drama from early beginnings to present day. Dramatic structures, concepts, styles and themes of sixteen plays will be examined. The influence of the theatre and dramatic literature as a social and cultural force will be discussed. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**TART 32AD** 3.0 units

**Stage and Screen Writing**
3 hours lecture.
Recommended Preparation: TART 25, FILM 1 or ENGL 26.
Grading: letter grade or credit/no credit

Fundamentals of play and screenwriting and characterization for students interested in dramatic writing. Transfer Status: Transferable to CSU, see counselor for limitations.

**TART 39AD** 1.0 unit

**Theatre Practicum**
3 hours laboratory.
Prerequisite: Current (or previous) enrollment in one or more of the following: TART 40AD, 42AD, 43AD or 55.
Corequisite: Current or previous enrollment in a theatre production course, i.e., stage scenery, stage lighting, stage costume or stage make-up.
Grading: letter grade or credit/no credit

A hands-on, practical intro to the function of stage technicians, costume/wardrobe and make-up technicians and their contribution to dramatic productions. Organization of the stage, lighting and properties departments, costume and make-up departments in the running of a theatre production, including equipment use and maintenance. The function of technical stage personnel in production work are introduced to develop the students’ skills and discipline in technical stage production. Transfer Status: Transferable to UC/CSU, see counselor for limitations.
Courses of Instruction

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit Units</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TART 40AD (CAN DRAM 12)</td>
<td>2.0 units</td>
<td>Stage Scenery</td>
<td>2 hours lecture, 3 hours laboratory. Corequisite: TART 39AD and 51AD. Grading: letter grade or credit/no credit. The theory and application of scenic design. Includes: painting, construction and manipulation of stage scenery. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>TART 42AD (CAN DRAM 10)</td>
<td>2.0 units</td>
<td>Stage Lighting</td>
<td>2 hours lecture, 3 hours laboratory. Corequisite: TART 39AD and 51AD. Grading: letter grade or credit/no credit. The practical application of the theories of stage lighting. Includes: using lighting materials and equipment, experimenting with light and color and lighting a stage for production. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>TART 43AD</td>
<td>2.0 units</td>
<td>Costume Crafts</td>
<td>1 hour lecture, 3 hours laboratory. Corequisite: TART 39AD and 51AD. Grading: letter grade or credit/no credit. Techniques of construction of costumes and accessories for the stage, including use of fabrics, materials and equipment. Practical experience in construction of costumes and accessories for Theatre Arts Department productions. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>TART 44AB</td>
<td>2.0 units</td>
<td>Costume Design</td>
<td>1 hour lecture, 3 hours laboratory. Corequisite: TART 39AD and 51AD. Grading: letter grade or credit/no credit. Techniques and theories of designing costumes for the stage, including design elements, execution of costume plates and costume plots, research and organization, clothing and theatrical costume history, patterns, budgets and development of costume portfolio. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>TART 47 (CAN DRAM 16)</td>
<td>3.0 units</td>
<td>Theatre Management</td>
<td>3 hours lecture. Grading: letter grade or credit/no credit. An intro to the phases of the administration, management and promotion of a producing theatre organization, focusing on the practical application of the principles learned in class, a “how to” course. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>TART 49AD</td>
<td>1.0 unit</td>
<td>Rehearsal and Performance</td>
<td>8 hours laboratory. Prerequisite: TART 1 (may be taken concurrently). Corequisite: TART 51AD. Grading: letter grade or credit/no credit. The application of acting and technical theatre theories through the preparation of plays for public performance. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>TART 50AD</td>
<td>2.0 units</td>
<td>Major Production Performance</td>
<td>2 hours laboratory. Recommended Preparation: Audition. Grading: letter grade or credit/no credit. Provides study and lab exploration in all aspects of play production involving the performer to develop acting capabilities, skills and disciplines. The audition, preparation and presentational phases of the acting process will be explored under the supervision and guidance of a faculty director. Productions will be presented for public performance. Enrollment is for the duration of the audition, preparation and presentation phases of production. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>TART 50/1</td>
<td>0.5 units</td>
<td>Major Production Performance</td>
<td>0.5 units. Recommended Preparation: Audition. Grading: letter grade or credit/no credit. Provides study and lab exploration in all aspects of play production involving the performer to develop acting capabilities, skills and disciplines. The audition, preparation and presentational phases of the acting process will be explored under the supervision and guidance of a faculty director. Productions will be presented for public performance. Enrollment is for the duration of the audition, preparation and presentation phases of production. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>TART 50/2</td>
<td>1.0 unit</td>
<td>Major Production Performance</td>
<td>1.0 unit. Recommended Preparation: Audition. Grading: letter grade or credit/no credit. Provides study and lab exploration in all aspects of play production involving the performer to develop acting capabilities, skills and disciplines. The audition, preparation and presentational phases of the acting process will be explored under the supervision and guidance of a faculty director. Productions will be presented for public performance. Enrollment is for the duration of the audition, preparation and presentation phases of production. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>TART 50/3</td>
<td>1.5 units</td>
<td>Major Production Performance</td>
<td>1.5 units. Recommended Preparation: Audition. Grading: letter grade or credit/no credit. Provides study and lab exploration in all aspects of play production involving the performer to develop acting capabilities, skills and disciplines. The audition, preparation and presentational phases of the acting process will be explored under the supervision and guidance of a faculty director. Productions will be presented for public performance. Enrollment is for the duration of the audition, preparation and presentation phases of production. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>TART 50/4</td>
<td>2.0 units</td>
<td>Major Production Performance</td>
<td>2.0 units. Recommended Preparation: Audition. Grading: letter grade or credit/no credit. Provides study and lab exploration in all aspects of play production involving the performer to develop acting capabilities, skills and disciplines. The audition, preparation and presentational phases of the acting process will be explored under the supervision and guidance of a faculty director. Productions will be presented for public performance. Enrollment is for the duration of the audition, preparation and presentation phases of production. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
<tr>
<td>TART 50/5</td>
<td>3.0 units</td>
<td>Major Production Performance</td>
<td>3.0 units. Recommended Preparation: Audition. Grading: letter grade or credit/no credit. Provides study and lab exploration in all aspects of play production involving the performer to develop acting capabilities, skills and disciplines. The audition, preparation and presentational phases of the acting process will be explored under the supervision and guidance of a faculty director. Productions will be presented for public performance. Enrollment is for the duration of the audition, preparation and presentation phases of production. Transfer Status: Transferable to UC/CSU, see counselor for limitations.</td>
</tr>
</tbody>
</table>
Participation as an audience member in weekly programs dealing with the art of theatre, including scene work, one-act plays, special presentations and full productions. Provides a supplement for the student to the theatre arts course(s) being taken concurrently that semester. Transfer Status: Transferable to CSU, see counselor for limitations.

**TART 52AD**  2.0 units

*Children’s Theatre Performance*
8 hours laboratory
Prerequisite: TART 1
Corequisite: TART 51AD
Grading: letter grade or credit/no credit
Covers script readings, auditions, rehearsals, preparation and the performance of a children’s theatre play. Bring live participatory theatre to children (ages 5-12) at schools, recreational sites, YMCA’s, hospitals, etc., in the local area. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**TART 55 (CAN DRAM 14)**  2.0 units

*Stage Makeup*
2 hours lecture, 1 hour laboratory
Corequisite: TART 39AD and 51AD.
Grading: letter grade or credit/no credit
The theory and application of stage makeup. Includes: designing and applying stage makeup to actors for various theatre productions. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**TART 56AD**  1.5 units

*Advanced Stage Makeup*
1 hour lecture, 2 hours laboratory
Prerequisite: TART 55
Corequisite: TART 39AD and 51AD.
Grading: letter grade or credit/no credit
Exploration of prosthetics, bald caps and wigmaking. Experimentation with new products. Designing and rendering processes. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**TART 60AD**  1.0 unit

*Special Projects In Theatre Arts*
3 hours laboratory
Grading: letter grade or credit/no credit
Permits lower-division students with a generalized background in drama to explore in-depth a specific aspect of theatre arts in both theory and execution. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**TART 75AD**  1.0 unit

*Summer Repertory Theatre: Performance*
7 hours laboratory
Corequisite: TART 76AD
Recommended Preparation: Audition
Grading: letter grade or credit/no credit
Participation in an organized summer theatre program based on the procedures of the professional repertory theatre. Extensive experience in training, rehearsal and performance. Typically offered in summer only. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**TART 76AD**  1.0 unit

*Summer Repertory Theatre: Production*
7 hours laboratory
Grading: letter grade or credit/no credit
An intro to the function of stage technicians and their contribution to the total effect of a dramatic production. Design research and principles, scene shop organization, equipment use and maintenance and the function of technical stage personnel in production work are introduced to develop design capabilities, skills and discipline in technical stage production. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

**TART 205**  3.0 units

*Auditions For: Theatre & Film*
3 hours lecture, 1 hour laboratory
Recommended Preparation: TART 3A OR 13A OR 13B
Grading: letter grade or credit/no credit
Prepares performers for the practical application of the professional audition process. Exercises in developing an actor’s professional manner, concentration and awareness. Covers presentation of self for maximum effect, selection of material, analyzing the text, presenting the material, how to prepare a resume and pictures. Guest lecturers will be part of the class and a simulated audition will aid in the process.

**TRAVEL/TOURISM**

**THRT 210**  3.0 units

*Introduction to the Travel Industry*
3 hours lecture.
Grading: letter grade.
Provides a basic understanding of travel and tourism and insights into the development and operation of various components of the travel industry. Emphasizes the concepts regarding travel as an industry and different industry practices.

**THRT 212**  3.0 units

*Travel Career Employment*
3 hours lecture.
Grading: letter grade.
A critical exam of employment possibilities in the travel/tourism industry, emphasizing employment standards and hiring practices leading towards employment.

**THRT 214**  3.0 units

*Travel Marketing and Sales Techniques*
3 hours lecture.
Grading: letter grade.
Provides techniques and skills of selling and a working knowledge of the methods of merchandising and advertising travel used by airlines, tour operators, retail travel agents and other tourism industries.

**THRT 215**  3.0 units

*Travel Operations & Risk Management*
3 hours lecture.
Grading: letter grade.
An intro to the realistic travel industry procedures and activities which provides meaningful application materials for students interested in the travel industry. Introduces the concept of risk management in the travel industry and provides some basic concepts for the management of risk.

**THRT 216B**  3.0 units

*Travel Destinations — North/Centr/South Am*
3 hours lecture.
Grading: letter grade.
Courses of Instruction

Study the location and physical description, history, form of government, documentation, languages, culture, currency, internal transportation, cities and major points of interest in North, Central and South America.

**THRT 216C 3.0 units**

**Travel Destinations — Europe and Africa**

3 hours lecture.

Grading: letter grade.

Learn location and physical description, history, form of government, documentation, languages, culture, currency, internal transportation, cities and major points of interest in Europe and Africa.

**THRT 216D 3.0 units**

**Travel Dest. — Pacific, Asia & Middle East**

3 hours lecture.

Grading: letter grade.

Study the location and physical description, history, form of government, documentation, languages, culture, currency, internal transportation, cities and major points of interest in Asia, the South Pacific and the Middle East.

**THRT 218 3.0 units**

**Transportation and Tours**

3 hours lecture.

Grading: letter grade.

Explore all forms of ground transportation, including rail, motor coach and car rentals. Learn the methods of costing a complete itinerary and the comparisons per diem for the various forms of transportation, hotel and sightseeing for individuals and groups. Research materials such as hotel, rail guides, car rental information and tour packages are reviewed, as well as customer service.

**THRT 219 3.0 units**

**Cruise Specialization**

3 hours lecture.

Grading: letter grade.

Introduces ship and cruise line terminology, applications and selling techniques. Identify cruise lines’ ships and their selling destinations. Includes individual and group booking procedures.

**THRT 220 3.0 units**

**Travel and Tourism Workshop**

3 hours lecture.

Prerequisite: THRT 212, 214, 216A-D, 218 and 230.

Grading: letter grade.

Provides a working knowledge of the travel industry. Use all related travel courses in applying knowledge to mock situations.

**THRT 222A 3.0 units**

**Travel Agency Computer Operations—SABRE**

2.5 hours lecture, 1.5 hours laboratory

Recommended Preparation: THRT 230 or equivalent Travel/Tourism industry knowledge and/or experience.

Grading: letter grade.

Provides a working knowledge of the computer terminal, including flight availability, schedules, passenger data and itineraries and fare information.

**THRT 222B 3.0 units**

**Travel Agency Computer Operations—APOLLO**

2.5 hours lecture, 1.5 hours laboratory

Recommended Preparation: THRT 230 or equivalent Travel/Tourism industry knowledge and/or experience.

Grading: letter grade.

Provides a working knowledge of the computer terminal, including flight availability, schedules, passenger data and itineraries and fare information.

**THRT 222C 3.0 units**

**Travel Agency Computer Operat—WORLDSPAN**

2.5 hours lecture, 1.5 hours laboratory

Recommended Preparation: THRT 230 or equivalent Travel/Tourism industry knowledge and/or experience.

Grading: letter grade.

Provides a working knowledge of the computer terminal, including flight availability, schedules, passenger data and itineraries and fare information.

**THRT 222D 3.0 units**

**Travel Agency Computer Opr — Conversion**

2.5 hours lecture, 1.5 hours laboratory

Recommended Preparation: THRT 222A, 222B or 222C or equivalent travel industry knowledge and/or experience.

Grading: letter grade.

Provides a working knowledge of the computer terminal for those trained in APOLLO who wish to convert to SABRE and for those trained in SABRE who wish to convert to APOLLO. Flight availability, schedules, passenger data, itineraries, fare information, car and hotel bookings are covered in each conversion.

**THRT 224 3.0 units**

**Meeting and Special Event Planning**

3 hours lecture.

Grading: letter grade.

Provides the skills necessary to successfully plan meetings and special events by supplying a comprehensive overview of meeting design and objectives, site selection, negotiation tactics, program planning, food and beverage, room setup, using support services, budgeting and financial planning, exhibit management, booth design, promotion, risk factors and evaluations.

**THRT 226 3.0 units**

**Travel Industry Accounting & Reporting**

3 hours lecture.

Grading: letter grade.

A basic intro to travel industry accounting, focusing on the steps in the accounting cycle. Emphasizes understanding the preparation of financial statements. Consideration is also given to accounting for expenses, fixed assets, inventory, equities, sales and payroll.

**THRT 228 3.0 units**

**Corporate Travel Management**

3 hours lecture.

Grading: letter grade.

An intro to the activities and responsibilities of the corporate travel arranger and manager. Operational techniques and financial plans and management are identified, proposals and contracts are discussed and the complete corporate travel process is presented.

**THRT 230 3.0 units**

**Travel Industry Fares & Ticketing**

3 hours lecture.

Grading: letter grade.

Provides a basic understanding of airline fares, ticketing, the issuance of air tickets and other accountable documents. Actual case studies will be used.
THRT 234 3.0 units
Tour Management & Escorting
3 hours lecture.
Grading: letter grade.
Introduces the roles and expectations of a tour manager and escort. Learn to research, plan and incorporate itineraries, promote the “package,” attract clients and manage the operational aspects of a group. The responsibilities and characteristics of a tour escort will be discussed.

THRT 240 3.0 units
Travel Industry Proficiency Preparation
3 hours lecture
Recommended Preparation: THRT 210, 218 and 230 or equivalent travel industry knowledge and/or experience.
Grading: letter grade.
Preparation for the Travel Agency Proficiency Test (TAP) certified by ASTA (the American Society of Travel Agents) and ICTA (the Institute of Certified Travel Agents). This advanced course reviews the skills essential to a productive travel industry career.

THRT 270AD 1.0 unit
Work Experience Issues — Travel Industry
1 hour lecture.
Corequisite: Enrollment in at least seven units including THRT 271AD, 272AD or 273AD and 270AD.
Grading: letter grade or credit/no credit
Seminar related to work experience. Discussion of work experience objectives, career goals, employment adjustment and problem areas encountered on the job.

THRT 271AD 1.0 unit
Work Experience — Travel Industry
4.1 hours laboratory
Corequisite: Enrollment in at least seven units including THRT 270AD and 271AD.
Grading: letter grade or credit/no credit
An extension of vocational learning experiences through employment in work experience directly related to the occupational goal or career for which the student college program is designed. One unit of credit shall be granted for every 75 hours per semester. Maximum of twelve units.

THRT 272AD 2.0 units
Work Experience — Travel Industry
8.3 hours laboratory
Corequisite: Enrollment in at least seven units including THRT 270AD and 272AD.
Grading: letter grade or credit/no credit
An extension of vocational learning experiences through employment in work experience directly related to the occupational goal or career for which the student college program is designed. One unit of credit shall be granted for every 75 hours per semester. Maximum of twelve units.

THRT 273AD 3.0 units
Work Experience — Travel Industry
12.5 hours laboratory
Corequisite: Enrollment in at least seven units including THRT 270AD and 273AD.
Grading: letter grade or credit/no credit
An extension of vocational learning experiences through employment in work experience directly related to the occupational goal or career for which the student college program is designed. One unit of credit shall be granted for every 75 hours per semester. Maximum of twelve units.

VIETNAMESE

VIET 1 5.0 units
Elementary Vietnamese
5 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
Intro to the Vietnamese language, including listening comprehension, conversation, reading, writing, speaking and mastering the basic tones and grammar. Includes conversation in everyday life situations, emphasizing the traditions and customs of Vietnam. Not recommended for native speakers. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

VIET 1A 3.0 units
Elementary Vietnamese
3 hours lecture.
Grading: letter grade or credit/no credit
The first half of VIET 1. Intro to the Vietnamese language, including listening comprehension, conversation, reading, writing, speaking and mastering the basic tones and grammar. Topics for conversation are everyday life situations, emphasizing the traditions and customs of Vietnam. This course, in combination with VIET 1B, is equivalent to VIET 1. Not recommended for native speakers. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

VIET 1B 2.0 units
Elementary Vietnamese
2 hours lecture, 1 hour laboratory
Prerequisite: VIET 1A
Grading: letter grade or credit/no credit
The second half of VIET 1. Intro to the Vietnamese language, including listening comprehension, conversation, reading, writing, speaking and mastering the basic tones and grammar. Topics for conversation are everyday life situations, emphasizing the traditions and customs of Vietnam. This course, in combination with VIET 1A, is equivalent to VIET 1. Not recommended for native speakers. Transfer Status: Transferable to UC/CSU, see counselor for limitations.

WELDING

WELD 50 3.0 units
Welding for Technicians
2 hours lecture, 4 hours laboratory
Grading: letter grade or credit/no credit
Essentials of gas, arc and inert gas welding and their application to industrial processes. Transfer Status: Transferable to CU/CSU, see counselor for limitations.

WELD 211 9.0 units
Fundamentals of Welding & Tools of Trade
5 hours lecture, 13.3 hours laboratory
Grading: letter grade or credit/no credit
An intro to welding addressing the techniques of Oxygen Acetylene gas welding of carbon/mild steels, hard facing, flame cutting, brazing and silver soldering. Suitable for students majoring in other occupational areas such as auto body, machine tool, aircraft, etc. Covers correct equipment setup, safety practices and general related information. Good health, manual
Courses of Instruction

dexterity and corrected or uncorrected 20/20 vision is necessary to be employable in the industry.

WELD 212 9.0 units
ARC Welding & Fabrication
5 hours lecture, 13.3 hours laboratory
Grading: letter grade or credit/no credit
An intro to arc welding fundamentals: safety practices, welding machines, basic welding symbols, metal identification (ferrous, non-ferrous, corrosion resistant and cast iron), inspection and testing procedures and welding codes. Skills learned will include flat, horizontal, vertical, overhead fillet welds and flat V-groove butt welds.

WELD 213 9.0 units
Advanced ARC Welding
5 hours lecture, 13.3 hours laboratory
Grading: letter grade or credit/no credit
Prepares students to take the Los Angeles City certification test in structural steel and/or sheet metal welding and to advance knowledge and skills in arc welding. Includes: safety, code specifications, blueprint reading, inspection procedures and basic welding metallurgy.

WELD 214 9.0 units
Inert Gas Welding (Heliarc, MIG)
5 hours lecture, 13.3 hours laboratory
Grading: letter grade or credit/no credit
Teaches inert gas welding skills, including GTAW (TIG-heliarc) welding of carbon steel, stainless steel, aluminum, magnesium and GMAW (MIG) of steel and aluminum and inshield welding. Learn skills necessary for a career as an aerospace industry welder.

WELD 220 6.0 units
Structural Arc Welding
3 hours lecture, 9 hours laboratory
Grading: letter grade or credit/no credit
Preparation in structural steel and/or sheet metal welding. For students who wish to advance their knowledge and skills in arc welding. Includes: safety code requirements, blueprint reading, inspection procedures, welding symbols and an intro to welding metallurgy.

WELD 221 4.0 units
Arc Welding Structural Certification
2 hours lecture, 6 hours laboratory
Grading: letter grade or credit/no credit
Prepares students to take the Los Angeles City certification test in structural steel and/or sheet metal welding and to advance knowledge and skills in arc welding. Includes: safety, electrode identification, welding code applications, basic welding metallurgy and basic welding techniques.

WELD 230 4.0 units
Fundamentals of Inert Gas Weld (Heliarc)
2 hours lecture, 6 hours laboratory
Grading: letter grade or credit/no credit
For students seeking skills in the inert gas welding process (G.T.A.W., G.M.A.W.) on aluminum. Learn the basic skills necessary for a career as an aerospace industry welder.

WELD 270AD 1.0 unit
Work Experience Issues — Welding
1 hour lecture.

Corequisite: Enrollment in at least seven units, including WELD 270AD and 271AD, 272AD or 273AD.
Grading: letter grade or credit/no credit
Seminar related to work experience. Discussion of work experience objectives, career goals, employment search, communication skills and problem solving.

WELD 271AD 1.0 unit
Work Experience — Welding
4.1 hours laboratory
Corequisite: Enrollment in at least seven units, including WELD 270AD and 271AD.
Grading: letter grade or credit/no credit
Satisfactory completion of at least seven units per semester including work experience and work experience issues. Vocational learning experiences through employment in work experience directly related to the industry.

WELD 272AD 2.0 units
Work Experience — Welding
8.3 hours laboratory
Corequisite: Enrollment in at least seven units, including WELD 270AD and 272AD.
Grading: letter grade or credit/no credit
Satisfactory completion of at least seven units per semester including work experience and work experience issues. Vocational learning experiences through employment in work experience directly related to the industry.

WELD 273AD 3.0 units
Work Experience — Welding
12.5 hours laboratory
Corequisite: Enrollment in at least seven units, including WELD 270AD and 273AD.
Grading: letter grade or credit/no credit
Satisfactory completion of at least seven units per semester including work experience and work experience issues. Vocational learning experiences through employment in work experience directly related to the industry.

WELD 400AD 2.0 units
Welding (General)
1 hour lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Safety practices, arc, gas and inert gas welding on all types of metal, metallurgy of welding, blueprint reading, layout, related math, certification requirements and welding codes are covered.

WELD 410AD 2.0 units
Welding (ARC)
6 hours laboratory
Grading: letter grade or credit/no credit
Addresses the techniques of arc welding of steels, cast iron, aluminum, hard facing and cutting. Also covers correct equipment setup, safety practices and general related information.

WELD 411AD 1.0 unit
Welding (ARC)
3 hours laboratory
Grading: letter grade or credit/no credit
Addresses the techniques of arc welding of steels, cast iron, aluminum, hard facing and cutting. Also covers correct equipment setup, safety practices and general related information.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>WELD 451AD</td>
<td>1.0</td>
<td>Welding (ARC)</td>
<td>Practice arc welding procedures on various types of metal and learn safety practices.</td>
</tr>
<tr>
<td>WELD 452AD</td>
<td>2.0</td>
<td>Welding (Acetylene Gas)</td>
<td>Techniques of oxy-acetylene gas welding of steels and aluminum, hard facing, flame cutting, brazing and oxy-hydrogen welding. Safety practices and general related information. May take a maximum of four semesters of WELD 452AD and 453AD.</td>
</tr>
<tr>
<td>WELD 453AD</td>
<td>1.0</td>
<td>Welding (Acetylene Gas)</td>
<td>Learn techniques of oxy-acetylene gas welding of steels and aluminum, hard facing, flame cutting brazing, oxy-hydrogen welding and safety practices.</td>
</tr>
<tr>
<td>WELD 454AB</td>
<td>2.0</td>
<td>Welding (Inert Gas)</td>
<td>Techniques of metallic and tungsten inert gas welding. Welding of steels, aluminum, magnesium, cast iron and safety practices are covered.</td>
</tr>
<tr>
<td>WELD 461AD</td>
<td>1.0</td>
<td>Oxygen Acetylene Welding</td>
<td>Addresses the techniques of Oxygen Acetylene gas welding of carbon/mild steels, hard facing, flame cutting, brazing and silver soldering. Covers correct equipment setup, safety practices and general related information.</td>
</tr>
<tr>
<td>WELD 481AD</td>
<td>1.0</td>
<td>Welding (Inert Gas)</td>
<td>Addresses the techniques of Tungsten Inert Gas arc welding (TIG) of steels, cast iron, aluminum, hard facing and cutting. Also covers correct equipment setup, safety practices and general related information.</td>
</tr>
<tr>
<td>WELD 601</td>
<td>0.0</td>
<td>Basic Vocational Education</td>
<td>Offers additional assistance in a vocational field or helps improve mastery of specific vocational fundamentals. Students who plan to enroll in regular courses, or who are presently enrolled in classes and need to improve their basic vocational education knowledge can benefit from this program.</td>
</tr>
</tbody>
</table>
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Dip.Tch, Kelvin Grove College, QUT, Australia

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TOLIVER, PATRICIA A.
Professor, Child Development/Parent Education
B.A., California State University, Los Angeles
M.A., University of Southern California
Ed.D., Pepperdine University
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<tr>
<th>Name</th>
<th>Title</th>
<th>Institution 1</th>
<th>Institution 2</th>
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<td>TOMSON, JANICE H.</td>
<td>Assistant Professor, Geology</td>
<td>B.S., University of Illinois, Urbana</td>
<td>M.S., San Jose State University</td>
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<td>TRAPP, FREDERICK P.</td>
<td>Dean, Institutional Research/Academic Services</td>
<td>B.A., California Western University, San Diego</td>
<td>M.A., The American University, Washington, D.C.</td>
<td>M.R.C.P., University of Oklahoma</td>
<td>M.P.A., Ph.D., University of Southern California</td>
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<td>TSUKASHIMA, RODNEY B.</td>
<td>Associate Professor, Ceramics</td>
<td>A.A., Los Angeles City College</td>
<td>B.A., M.A., California State University, Long Beach</td>
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<td>TURNER, LYDIA</td>
<td>Counselor, Financial Aid</td>
<td>B.A., California State University, Long Beach</td>
<td>M.S., National University, Irvine</td>
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<td>UEJIO, CLIFFORD K.</td>
<td>Coordinator, ESL Learning Center</td>
<td>B.A., University of Hawaii</td>
<td>M.A., California State University, Los Angeles</td>
<td>M.A., University of California, Los Angeles</td>
<td>Ph.D., State University of New York, Buffalo</td>
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<td>UKWU, DELE C.</td>
<td>Librarian</td>
<td>B.A., University of Cincinnati, Cincinnati, Ohio</td>
<td>M.S., Miami University, Oxford, Ohio</td>
<td>M.L.S., University of California, Los Angeles</td>
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<td>UMBDENSTOCK, LINDA</td>
<td>Dean, Planning</td>
<td>B.A., Alverno College, Milwaukee, Wisconsin</td>
<td>Ph.D., Portland State University</td>
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<td>VALENTE, MARIO M.</td>
<td>Executive Director, Academic Computing &amp; Information Technology</td>
<td>B.A., University of California, Los Angeles</td>
<td>M.S., California State University, Fullerton</td>
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<td>VAN HOOK, ROGER E.</td>
<td>Professor, Speech</td>
<td>A.A., Long Beach City College</td>
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<td>VAN SINDEN, DANA E.</td>
<td>Instructor, Child Development/Early Childhood Education</td>
<td>B.A., M.A., California State University, Long Beach</td>
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<td>VASS, GABOR I.</td>
<td>Instructor, Automotive Technology</td>
<td>M.A., Ministry of Advanced Education, Victoria, British Columbia</td>
<td>M.S., Pacific Western University, Los Angeles</td>
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<td>VERMA, SURENDRA M.</td>
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<td>VILLASENOR, FRANCISCO J.</td>
<td>Counselor</td>
<td>B.S., University of Southern California, Los Angeles</td>
<td>M.A., Point Loma Nazarene University, Pasadena</td>
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<td>WELLS, PEGGYANN E.</td>
<td>Instructor, Vocational Nursing</td>
<td>B.S.N., New York Regents College, Albany</td>
<td>M.N., University of Phoenix, Arizona</td>
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WELSH, CAROL S.
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BABB, CARL  
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BALLINGER, EVAN  
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BAY, JESSE C.  
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BOSTER, LINDA J.  
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BOYCE, ALLISON A.  
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BRIZUELA, MAEKA  
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BROUSSEAU, BETH L.  
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BROWN, DIANE  
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BROWN, MARGIE N.  
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BROWN, SCOTT A.  
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BRUCE, MELANIE A.
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BRYANT, JACQUELINE S.
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BUGBEE, WALTER M.
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BUONOCore, NANCY
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BURGER, SANDRA K.
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CAHN, JEFFREY L.
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CASEY, MARGARET E.
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CASEY, PAUL L.
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CASHION, JOAN
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CASTILLO, EMILIA
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CHAN, THEODORE C.
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CHENG, PEIHSIN Y.
Chinese

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CLEMENT, DAVID M.
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COHEN, AARON G.
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COLEMAN, SAMUEL N.
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COMISKEY, PHYLLIS L.
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COMPANIONI, ALEXA C.
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CONNER, JOANNA
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CONOVALOFF, ELAINE
Health Education

CONTE, MARIE E.
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CONTRERAS, THEODORE R.
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COOP, JEANANNE W.
Fashion

COOPER, KAREN L.
Computer & Business Information Systems

COPELAND, JAN A.
English as a Second Language

COPPLE, MARLA
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CORDERO, MARIO
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COSTANZO, ANTHONY J.
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COX, STIRLIE J.
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CRAMOND, WALTER R.
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CRAWSHAW, JULIE
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CREASON, PAUL J.
Learning Assistance

CRIGGER, BENNY L.
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CUESTA, YOLANDA
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CUEVAS, IRVIN
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CULLY, SUSAN F.
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CURTIS, CHARLES M.
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DAHI, KHETAM
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DAHMS-ROGERS, KATHLEEN
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DAMMENA, ZEKARIAS W.
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DAUGHERTY, SARAH
English, Reading

DAVID, ERIC
Electricity

DAVIES, AGNES S.
English, Reading

DAVIS, PATRICIA M.
Accounting

DECANIO, FRED D.
Speech

DE LA CRUZ, NANCY L.
Vocational Nursing

DE LEON, RAYMOND Z.
<table>
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<tr>
<th>Name</th>
<th>Title</th>
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<td>DE LOS RIOS, KATYA</td>
<td>Economics</td>
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<td>DENMAN, JOHN F.</td>
<td>Anthropology</td>
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<td>DIEDRICH, RENE</td>
<td>English</td>
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<td>DIETRICK, PATRICIA W.</td>
<td>Photography</td>
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<td>Foreign Language</td>
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<td>DIXON, ROGER W.</td>
<td>Computer &amp; Business Information Systems</td>
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<td>DOCKSTADER, JANET E.</td>
<td>History &amp; Political Science</td>
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<td>DOHI, AKIKO</td>
<td>Music</td>
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<td>DOLAS, CHRIS J.</td>
<td>Aviation</td>
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<td>DOUGLAS, MINNIE T.</td>
<td>Health Services</td>
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<td>DOWDALLS, JAMES M.</td>
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<td>DRAGHI, JOHN P.</td>
<td>Bowling</td>
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<td>DROBNY, MARY M.</td>
<td>Art Historian</td>
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<td>DU BOIS, HENRY J.</td>
<td>Learning Resources</td>
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<td>DUMARS, DENISE D.</td>
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<td>Mathematics &amp; Engineering</td>
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<td>Student Counseling/Guidance</td>
<td>Administration of Justice</td>
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<td>Information Systems</td>
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<td>SHAFER, WENDELL W.</td>
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<td>SHARMA, DEEPAK</td>
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<td>Music &amp; Radio/Television</td>
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<td>SHAW, ALLYSON</td>
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<td>Computer &amp; Business Information Systems</td>
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<td>SHIBUYA, STEVEN T.</td>
<td>Machine Tool</td>
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<td>SHIM, CASEY N.</td>
<td>Basic Adult Education</td>
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<td>SIEGEL, JANNEANE R.</td>
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<td>SILVERSTEIN, CAROLE</td>
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<td>English as a Second Language</td>
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<td>SIMON, JOHN H.</td>
<td>Aviation Maintenance</td>
<td>English as a Second Language</td>
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<td>SIMPSON, JAMES A.</td>
<td>Art</td>
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<td>SIMS, SUSAN K.</td>
<td>Women’s Golf Coach</td>
<td>English as a Second Language</td>
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<td>SINCLAIR, REX</td>
<td>Physical Science</td>
<td>English as a Second Language</td>
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<td>SINGLETON, PAUL R.</td>
<td>English</td>
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<td>SIQUEIROS, ADOLFO</td>
<td>Computer &amp; Office Technologies</td>
<td>English as a Second Language</td>
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</table>
SIRKEGIAN, ROBINSON  
Auto Body Repair/Automotive Mechanic  
SJIOBERG, ERIC  
History & Political Science  
SKAAR, SUZAN K.  
Art  
SLAUGHTER, ERIC  
Electronics  
SMITH, BYRON J.  
Music & Radio/Television  
SMITH, CHARLES A. III  
Computer & Business Information Systems  
SMITH, JAMES B.  
Public Services  
SMITH, JAMES R.  
Computer & Office Technologies  
SMITH, KIRK  
English as a Second Language  
SMITH, MELINDA M.  
Life Science  
SMITH, PEGGY J.  
Physical Science  
SMITH, SEAN  
History & Political Science  
SMURTHWAITE, LORI F.  
English  
SNIDER, CLIFTON M.  
English  
SONIDO, ELEANOR M.  
Library  
SORENSON, BARBARA J.  
Theatre, Dance & Film  
SORENSON, BERTRUM N.  
Public Services  
SOROUSHIAN, PARVANEH  
Business Administration  
SPANGLER, PAMELA  
Music & Radio/Television  
SPANU, LUISA  
Foreign Language  
SPARKS, JAMIE  
Speech Communication  
SPARKS, PETER  
Auto Body  
SQUIRES, ANNETTE  
Mathematics & Engineering  
STARRS, ANTHONY  
English  
STEELE, DONETTE A.  
Psychology  
STEENWYK, FERN L.  
English  
STEvens, CARLYS A.  
Library  
STEWART, DONNA M.  
English  
STREETZ, EVA  
Registered Nursing  
STROMQUIST, ANNIE  
Art  
STRONG, CARL  
Physical Education  
STUART, JOHN W.  
Public Affairs & Services  
STURGEON, ELIZABETH  
English/Matriculation  
SULAHIAN, ROBERT S.  
Aviation Pilot Training  
SWANSON, SUSAN G.  
Real Estate  
TABESH, ELAHE  
Physical Science  
TAKACS, MARCIA  
English as a Second Language  
TANG, REBECCA J.  
English as a Second Language  
TAYLOR, SHELLEY  
Floral Design  
TEGART-WORSHAM, SHIRLEY  
Travel & Tourism  
TENNESEN, MARGARET  
Art  
TERAN, LOUIE A.  
Music & Radio/Television  
TERAOKA, ADAM Z.  
Art  
TERRY, LADD J.  
Art  
THARP, LOUIS B. JR.  
Social Science  
THILL, WALTER R.  
Photography  
THOITS, MARY  
Public Affairs/Human Services  
THOMAS, JANINE M.  
Public Affairs & Services  
THOMAS, MICHELLE L.  
Disabled Programs & Services  
THOMPSON, ANGELA R.  
Foreign Language  
THOMPSON, JOYCE E.  
Registered Nursing  
THOMPSON, PATRICIA C.  
Child Development  
THORNTON, SHANTEL L.  
Social Science  
THRASHER, THOMAS  
English & Reading  
TIGHE, BARBARA J.  
Basic Adult Education  
TILESTON, THOMAS R.  
Economics  
TIM, RAOTANA C.  
Music  
TITEL, MARC F.  
Management  
TRAN, TRI C.  
Spanish  
TRAPP, ELIZABETH B.  
Spanish  
TRVERS, PHYLLIS S.  
Biology  
TRICKETT, DAWN L.  
Speech  
TROTT, RUBY S.  
Computer & Business Information Systems  
TRUITT, JAMES D.  
Journalism  
TSUJI, KENNETH  
Aviation Maintenance/Avionics  
TUCCIARONE, JOSEPH D.  
Mathematics  
TUCKER, JAZMINE S.  
English as a Second Language  
TUMBAS, NANCY  
English as a Second Language  
TURNER, SCOTT S.  
Business Administration  
UKPO, THERESA M.  
Life Science  
VAIL, WILLIAM B.  
Student Counseling & Guidance  
VALENcia, RAYMUNDO J.  
Cabinet Making/Carpentry  
VALENZUELA, JOHN R.  
Hotel/Restaurant Management  
VAN, NATALIE X.  
Business Administration  
VAN DE HOEK, ROBERT R.  
Marine Biology  
VAN HOOTEN, JOSEPH E.  
Art  
VAN STYGEREN, CORNELIS  
Sociology
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Assisting

WYNNE, PAUL R. Art

WYSZPOLSKI, JON J. Computer & Office Technologies

YAHYE, ABDIRASHID Computer & Business Information Systems

YANAGIHARA, GREGORY M. Physical Science

YANG, RUIXUE English as a Second Language

YEE, SIMON F. Life Science

YEMUT, EMAD B. Mathematics & Engineering

YOON, YONG English as a Second Language

YUNKER, TERESA M. English

ZAFIROPOULOS, YANNI English as a Second Language

ZAMOYSKA, CELINE C. English as a Second Language

ZAWOYSKY, JOHN R. Accounting

ZELENY, MARGARET Music & Radio/Television

ZONKOSKI, JOHN Music & Radio/Television
ABAIR, RUTH C.  
Career Center Technician

ABE, ROBERT Y.  
Computer Operator

ACOSTA, ADELINO  
Senior Clerk

AGUERO, JOSE E.  
Custodian

AGUERO, LUZ L.  
Custodian

AJA, MARY E.  
Sports Therapist

ALARCON, PETER  
Custodian

ALBERS, SUSAN K.  
Principal Cashier

ALBRECHT, NANCY K.  
Executive Secretary

ALVARADO, MARTHA  
Workforce Development Coordinator

ALVARADO, OLGA  
Financial Aid Technician

ALVAREZ, DENISE F.  
Senior Clerk

ALVAREZ, LISBETH  
ESL Office Coordinator

AMADOR, RUBEN E.  
Library Technician III

ANDERSON, JEFFREY W.  
Custodian

ANDRADE, ARTHUR E.  
Pool Operator

ARISTIZABAL, MANUELA  
Library Assistant

ARJONA, JAVIER  
Student Center Facilitator

ASTON, STEVEN W.  
Creative Arts Production Coordinator

ATWOOD, KATHIE A.  
Campus Support Secretary

AVERY, BETTY J.  
Budget Specialist

AXUP, PAMELA S.  
Human Resources Analyst

BABCOCK, EVERETT E.  
College Safety Officer

BAILEY, CATHY L.  
Child Development Specialist

BAKER, JANE E.  
Accounting Technician III

BAKKEN, SANDRA L.  
Instructional Aide

BANGS, DIANE  
Human Resources Assistant

BARATIE, MYRIAN A.  
Admissions/Records Assistant

BARNUM, ALBERT  
Custodian

BARRY, ANTONETTE  
Senior Clerk

BARTZ, JENNIFER L.  
Office Assistant

BEaulac, JOANNE D.  
Child Development Specialist

BENNETT, GORDON M.  
Purchasing Assistant

BERGEN, PATRICIA J.  
Senior Clerk

BERNARD, JOANN  
Associate Director, Financial Aid

BERRY, JANICE L.  
Executive Secretary

BERRY, MARC D.  
Accountant

BERRY, MARSHALL  
Custodial Supervisor I

BLACK, KATHLEEN  
Child Development Specialist-CalWorks

BLOMBERG, CYNTHIA M.  
Health Services Specialist

BLORE, JOANNE  
Project Manager, Workplace Skills

BOUWENS, DEBRA A.  
Child Development Site Supervisor

BOWERS, ALISON  
Instructional Associate II

BOWERS, SARAH  
Intermediate Clerk

BOWSER, JUDITH C.  
Division Secretary

BOWSER, ROBERT A.  
Accounting Assistant I

BOYKIN, TALMADGE  
Skilled Maintenance Worker

BOYLE, DEBORAH  
EOP&S Program Specialist

BRADSHAW, JOAN M.  
Board Secretary

BRETON, JOANNE W.  
Schedule Technician

BROWN, BARBARA D.  
Senior Clerk

BROWN, EILEEN T.  
Senior Clerk

BROWN, ROGER K.  
Lead Custodian

BROWN, VINCENT  
Instructional Aide

BUHAIN, ALLAN  
Supplies Clerk

BUI, CHAU  
User Support Network Coordinator

BURAS, DARYLYNN J.  
Senior Clerk

BURTON, MYRON  
College Safety Officer

BUTCHER, JOHN E.  
Grounds Maintenance Worker

CARESS, MICHAEL  
Director, Community Contract Education

CARR, RAUL  
ESL Office Coordinator

CARR, JOAN  
Payroll & Benefits Manager

CARROLL, SEAN  
Multimedia Systems Specialist

CARTER, JERI L.  
Manager, Student Life

CASKEY, MARIA B.  
Senior Clerk

CASTILLO, OLGA  
College Safety Officer

CHAO, SEM  
Internal Auditor

CHAU, HUU  
Computer Laboratory Technician

CHAVEZ, LARRY  
College Center Attendant

CHAVEZ, RAUL R.  
Custodian
CHEN, HU WEI-HWA
Programmer Analyst

CHOW-OSAKO, ANGELINA
Human Resources Assistant

CHUKWUDIRE, HURTICINE J.
Senior Clerk

CLARK, LISA A.
Health Services Specialist

CLAYTON, STEVE L.
Media Producer

CLEVELAND, SANDRA
Instructional Aide

COLEMAN, KEVIN D.
Custodian

COLLINS, EDWARD L.
Custodian

COMPION, JOHNNY
Skilled Maintenance Worker

COMPION, LAURA L.
Senior Clerk

CONDON, SUZANNE M.
Secretary

COSTA, ALTA M.
Secretary

COVARRUBIA, ROBERT A.
Heating/Vent/Air Conditioning Mechanic

CREASON, PAUL J.
Director of Grants

CREASEY, RICHARD N.
Custodial Supervisor I

CRONIN, ROGER F.
Maintenance Manager

CRUZ, CATALINA M.
Director, Fiscal Operations

CUETO, ALEJANDRO R.
Vehicle Attendant

CULPEPPER, AARON D.
Custodian

CUTLER, JOEL L.
Media Producer

CVETKOVICH, TATJANA E.
Office Assistant, EOP&S

DANDOY, MAURY R.
College Police Shift Supervisor

DANIELS, DOUGLAS B.
Science Laboratory Stockroom Assistant

DAVIS, JUDY M.
Secretary

DAVIS, PATRICIA
Comptroller/Assistant Director

DAVIS, TINA E.
Division Secretary

DE LA RAMA, CURIE C.
Admissions/Records Technician

DE SANTIAGO, DARIO JR.
Music Studio Lab Assistant

DEERING, JO ANN
Financial Aid Technician

DEGRATE, SUSAN C.
Human Resources Specialist

DEWEES, MARCIA R.
Associate Registrar

DIAZ, CORA L.
Human Resources Specialist

DOMINGUEZ, SEAN R.
Instructional Aide

DOSS, JOHN L.
Radio/TV Equipment Technician

DOWNEY, JOHN C.
Instructional Associate II

DOYLE, MARY M.
Custodian

DUPREE, MYESHIA
Senior Clerk

DURAN, SUSANA
Bilingual Counselor Assistant

EACH, KATHRYN S.
Senior Clerk

ECKMAN, JONATHAN E.
Custodian

EDWARDS, ALEX
Programmer Analyst

EDWARDS, MARILYN J.
Speech Pathologist

EKHSIGIAN, ARDA
Associate Director, Financial Aid

ESLAVA, MARGARET E.
Child Development Specialist

ESTACIO, RICHARD R.
Lead Custodian

ESTACIO, RONALD J.
Warehouse Receiving Clerk

FALKERT, EXVIN MIN
Senior Clerk

FAN, CICY
Intermediate Clerk

FEENSTRA, DARREN J.
Grounds Equipment Operator II

FENDerson, MARIE E.
Intermediate Clerk

FERNANDEZ, YOLANDA C.
Senior Clerk

FINLEY, BRENDAL J.
Instructional Toolroom/Maintenance Mechanic

FLORY, WILLIAM M.
Director of Facilities

FLOWERS, JIMMIE R.
Custodian

FLOYD, JONATHAN G.
Deputy Director, Facilities

FOOT, HAROLD
Instructional Associate

FOOTDALE, JOSEPH L.
College Police Shift Supervisor

FOUNTAIN, DONNA E.
Library Media Technician

FOURNIER, MARY K.
Instructional Associate II

FOUTS, WILBERT J.
Athletic Equipment Assistant

FRANCO, DOLORES
Senior Clerk

FRANKENFIELD, RALPH M.
Locker Room Attendant

FREIBURGER, STEVEN
Computer Laboratory Technician

FREY, BOB G.
College Safety Officer

FUSCO, ANTHONY J.
Athletic Field Maintenance Worker

GAFFNER, CAROL A.
Reading Assessment Technician

GALVAN, KAREN
Instructional Aide

GARBER, MARK D.
Heating, Ventilation, Air Conditioning Mechanic

GARCIA, ANA M.
Division Secretary

GARCIA, PEDRO
Custodian
GARCIA, RAUL
    Computer Network Technician
GATES, VERNON G.
    College Police Officer
GERBUTAVICIUS, JOHN M.
    Photography Laboratory Technician
GIBBINS, ANITA
    Manager, Women’s Center
GLOVER, CHERYL
    Secretary
GONZALES, GLORIA S.
    Intermediate Clerk
GONZALEZ, GLORIA R.
    Senior Clerk
GREENAWALT, BRENDA L.
    Secretary
GUJAJACA, RICHARD
    Custodian
GUIDAS, MARK C.
    User Support/Network Coordinator
GUSTIN, PHILIP J.
    Grounds Maintenance Worker
GUTIERREZ, DOROTHY J.
    Financial Aid Advisor
HALL, STEVEN P.
    Stadium Maintenance Technician
HANCOCK, SANDRA L.
    Instructional Equipment Assistant
HANKS, CYNTHIA A.
    Media Technical Specialist
HARRINGTON, LA MONT D.
    Custodian
HARVESTON, RANDY G.
    Library Technician I
HARVEY, KATHERINE L.
    Library Technician II
HAYES, BRENDAN J.
    College Police Lieutenant
HEBER, LESLIE
    Data Software Technician
HEDBERG, KAREN R.
    Purchasing Assistant
HEDBERG, MARCIA A.
    Senior Clerk
HEFFERN, TIMOTHY
    Computer Network Technician
HELDBERG, FREDRICK
    Instructional Toolroom Maintenance Mechanic
HELLER, KEVIN
    Custodian
HENRY, ROBERT P.
    Photography Laboratory Assistant
HERNANDEZ, JOSE L.
    Custodian
HERZOG, BARBARA B.
    Tutorial Program Coordinator
HICKS, PATRICIA L.
    Accounting Technician I
HILL, ROBERT H.
    Manager, Student Life
HIVELY, STUART E.
    Instructional Equipment Technician
HOBBS, ERIC
    Web Coordinator, Title V
HOFFLAND, CECILIA
    Library Technical Assistant
HOLE, MICHAEL D.
    Chief, College Police
HOPKINS, DEAN A.
    Public Information Officer
HOYO, RENE
    Instructional Aide
HUERTA, MAGDALENA M.
    Financial Aid Technician
HUTCHINGS, PETER
    Performance Accompanist
HYSAW, MICHAEL R.
    Custodian
ISASLAZO, ROGELIO
    Instructional Aide
JACKSON, CYNTHIA D.
    Purchasing Assistant
JANSSEN, WILLIAM E.
    Electrician
JARRETT, HERMAN
    Custodian
JARVI, THOMAS J.
    Grounds Maintenance Worker
JEFFERSON, JAMES
    Custodian
JENKIN, LESLIE
    Contract/Buyer Supervisor
JENNINGS, REGINA
    Student Support Services Project Coordinator
JOHNSON, HELEN P.
    Accounting Technician II
JOHNSON, KAREN
    Intermediate/Senior Clerk
JOHNSON, LINDA J.
    Computer Operations Manager
JOHNSON, MARY B.
    Administrative Secretary
JOHNSON, PATRICIA A.
    Senior Clerk
JOHNSON, ROBERT
    Instructional Toolroom Maintenance Mechanic-Machine Tool
JOSEPH, RAYMOND G. JR.
    Library Technician II
JURA, CAROLYN G.
    Child Development Specialist
JUSTUS, TERESA L.
    Child Development Specialist
KALUHIWA, MARY
    Health Services Assistant
KEA, DEBORAH J.
    Learning Center Assistant
KEARNEY, KEVIN M.
    Performance Accompanist
KECKISEN, DEBORAH C.
    Accountant
KHONG, NONG
    Instructional Aid
KIFT, KATHERINE
    Office Assistant
KINSSELLA, DENISE L.
    Office Assistant
KIPNIS, KIM A.
    Workforce Development Coordinator
KLINGBEIL, CYNTHIA N.
    Child Development Site Supervisor
KNIGHT, CHARLES H.
    Theatre Arts Production Assistant
KNOX, MARTIN G.
    College Police Officer
KRUSE, JANICE M.
    Child Development Specialist
KU, MAILANI
    Instructional Aide
LABARBA, MARY
Instructional Aide

LABARBA, MARY
Instructional Aide

LACEFIELD, BEVERLY
Senior Clerk

LACEFIELD, BEVERLY
Senior Clerk

LAM, HUE
Office Assistant

LAM, HUE
Office Assistant

LANE, RENO A.
Financial Aid Technician

LANE, RENO A.
Financial Aid Technician

LANG-WILVERS, JACQUELINE
Grants Development Specialist

LANG-WILVERS, JACQUELINE
Grants Development Specialist

LASHOWER, KAREN L.
Instructional Aide

LASHOWER, KAREN L.
Instructional Aide

LAWRENCE, KERRY D.
Telecommunications Technician

LAWRENCE, KERRY D.
Telecommunications Technician

LAWRENCE, SHERRI L.
Computer Operator

LAWRENCE, SHERRI L.
Computer Operator

LEMLE, BARBARA
Intermediate Clerk

LEMLE, BARBARA
Intermediate Clerk

LERCH, VICKI A.
Campus Support Secretary

LERCH, VICKI A.
Campus Support Secretary

LEUER, PATRICIA L.
Accounting Technician II

LEUER, PATRICIA L.
Accounting Technician II

LICHENBERGER, JANA M.
Buyer

LICHENBERGER, JANA M.
Buyer

LIM, NORMA B.
Secretary

LIM, NORMA B.
Secretary

LINO, ARDETTE R.
Senior Clerk

LINO, ARDETTE R.
Senior Clerk

LITTLEJOHN, ROSE
Senior Clerk

LITTLEJOHN, ROSE
Senior Clerk

LONEY, BRADLEY R.
Custodian

LONEY, BRADLEY R.
Custodian

LONG, BORATH
Instructional Aide

LONG, BORATH
Instructional Aide

LONG, LEKKINA
Assistant Job Developer

LONG, LEKKINA
Assistant Job Developer

LOPEZ, PRISCILLA
Workforce Development Coordinator

LOPEZ, PRISCILLA
Workforce Development Coordinator

LOPEZ, SHARON R.
Senior Clerk

LOPEZ, SHARON R.
Senior Clerk

LORENCZ, ELLEN K.
Senior Clerk

LORENCZ, ELLEN K.
Senior Clerk

LOWER, LINDA D.
Secretary II

LOWER, LINDA D.
Secretary II

LUDWIG-BONGARD, JULIA
Instructional Aide

LUDWIG-BONGARD, JULIA
Instructional Aide

LUUGA, AUGUST
Systems/Programming Manager

LUUGA, AUGUST
Systems/Programming Manager

LUUGA, LYNDA G.
Registrar

LUUGA, LYNDA G.
Registrar

LY, BOUNRITH
User Support Network Coordinator

LY, BOUNRITH
User Support Network Coordinator

LY, RICHARD
Instructional Aide

LY, RICHARD
Instructional Aide

LY, THAI
Instructional Assistant

LY, THAI
Instructional Assistant

LYLES, STEPHANIE
Custodian

LYLES, STEPHANIE
Custodian

MABON, LEO
Custodial Services Manager

MABON, LEO
Custodial Services Manager

MAC CULLEN, RUTH E.
Associate Registrar

MAC CULLEN, RUTH E.
Associate Registrar

MADERA, ELIZABETH
Administrative Secretary

MADERA, ELIZABETH
Administrative Secretary

MAGDALENO, CORINNE
Administrative Secretary

MAGDALENO, CORINNE
Administrative Secretary

MAJOR, ELLA L.
Accounting Technician III

MAJOR, ELLA L.
Accounting Technician III

MALAGA, BENIGNO
Custodian

MALAGA, BENIGNO
Custodian

MALONEY, MICHAEL
Student Athlete Success Coordinator

MALONEY, MICHAEL
Student Athlete Success Coordinator

MARCY, DONALD J.
Stage Technician

MARCY, DONALD J.
Stage Technician

MARIOTTA, MARIO, III
Stage Technician

MARIOTTA, MARIO, III
Stage Technician

MARPLE, TERRI L.
Office Assistant

MARPLE, TERRI L.
Office Assistant

MARSHALL, STEVEN V.
Campus Police Officer

MARSHALL, STEVEN V.
Campus Police Officer

MARTIN, ELIZABETH
Library Assistant

MARTIN, ELIZABETH
Library Assistant

MARTIN, MARLIN
Offset Press Operator

MARTIN, MARLIN
Offset Press Operator

MARTINEZ, MELISSA
Child Development Specialist

MARTINEZ, MELISSA
Child Development Specialist

MASSUSA, MIKE R.
Carpenter

MASSUSA, MIKE R.
Carpenter

MATHIS, SANDRA L.
Buyer

MATHIS, SANDRA L.
Buyer

MC CREADY, OLIVIA D.
Disabled Student Programs & Services Technical Assistant

MC CREADY, OLIVIA D.
Disabled Student Programs & Services Technical Assistant

MC ELDOWNEY, MARY L.
Executive Secretary

MC ELDOWNEY, MARY L.
Executive Secretary

MC GOLDRICK, JAMES J.
Custodian

MC GOLDRICK, JAMES J.
Custodian

MC GOVERN, JOHN P.
Construction Coordinator

MC GOVERN, JOHN P.
Construction Coordinator

MC GUIRE, GAIL
Senior Clerk

MC GUIRE, GAIL
Senior Clerk

MC INTOSH, PATRICIA S.
Senior Clerk

MC INTOSH, PATRICIA S.
Senior Clerk

MC KENZIE, LORI K.
Health Services Assistant

MC KENZIE, LORI K.
Health Services Assistant

MC KIBBEN, DIANE E.
Career Center Technician

MC KIBBEN, DIANE E.
Career Center Technician

MC KIBBEN, LORI J.
Financial Aid Technician

MC KIBBEN, LORI J.
Financial Aid Technician

MC NAMEE, ANN B.
Assessment Technician-Matriculation

MC NAMEE, ANN B.
Assessment Technician-Matriculation

MCQUEEN, ROBERT
Custodian

MCQUEEN, ROBERT
Custodian

MEAK, SAVOUN
Office Assistant

MEAK, SAVOUN
Office Assistant

MEJIA-GAYTAN, GEORGIANA
Human Resources Assistant

MEJIA-GAYTAN, GEORGIANA
Human Resources Assistant

MELIN, CONNIE
Human Resources Specialist

MELIN, CONNIE
Human Resources Specialist

MELLEVOLD, MICHAEL T.
Library Technician II

MELLEVOLD, MICHAEL T.
Library Technician II

MENDOZA, DAVID C.
Custodian

MENDOZA, DAVID C.
Custodian

MENDOZA, GRACIELA D.
Division Secretary

MENDOZA, GRACIELA D.
Division Secretary

MERCADANTE, MICHAEL J.
Science Laboratory Stockroom Assistant

MERCADANTE, MICHAEL J.
Science Laboratory Stockroom Assistant

MERRILL, VICTOR
Plumber

MERRILL, VICTOR
Plumber

MEZA, MARSHA
Admissions and Records Assistant

MEZA, MARSHA
Admissions and Records Assistant

MILKES, SHARON
Senior Clerk

MILKES, SHARON
Senior Clerk

MILLER, JANICE L.
Office Manager

MILLER, JANICE L.
Office Manager
MILLER, LAURA J.  
Accounting Technician II

MILLER, MARGARET A.  
Senior Clerk

MISENER, NANCY L.  
Senior Clerk

MIYAO-MOORE, NANCY.  
Intermediate Clerk

MONAUS, MARIE A.  
Instructional Assistant

MONGILLO, PERLA A.  
Admissions and Records Assistant

MOORE, CHANDRA Y.  
Workforce Development Coordinator

MOORE, ROBERT A.  
Accounting Technician I

MORALES, BLANCA  
Clerk

MORALES, DEMETRIA  
Intermediate Clerk

MORALES, ELIZABETH  
Upward Bound Program Specialist

MORALES, SALVADOR C.  
Grounds Maintenance Worker

MORGAN, BRUCE E.  
Electrician

MORGAN, GERALDINE E.  
Administrative Secretary

MORGAN, MICHAEL S.  
Lead Custodian

MOYES, CINDY J.  
Supervisor, Accounting, Special Projects

MRAVEC, MONIKA  
Educational Technologist

NACHREINER, RONALD L.  
Office Assistant

NAPOLILLO, ANTHONY W.  
Custodian

NAPOLILLO, GERALD W.  
Manager, Health, Safety, Environmental Compliance Program

NAVA, GLORIA J.  
Administrative Secretary

NEJAD, SHADI  
Student Support Project Coordinator

NETTEBERG, MARCIA L.  
Instructional Aide/Intermediate Clerk

NEUBAUER, WARREN F.  
Programmer Analyst

NEWMAN, JOANNE  
Human Resources Specialist

NGUYEN, CINDI T.  
Accounting Technician I

NGUYEN, HUE X.  
Financial Aid Technician

NGUYEN, KENDALLE  
Bilingual Assistant Job Developer

NGUYEN, KIMLAN  
Office Assistant

NGUYEN, MINH  
Office Assistant

NGUYEN, NANG V.  
Project Manager-Rite

NGUYEN, TAI  
ESL Orientation Assistant

NORBERG, BEVERLY J.  
Administrative Secretary

NORMAN, DENISE L.  
Division Secretary

NYSTROM, ARNE F.  
Network Systems Analyst

OCHOA, JOHNNY  
Custodian

OLSEN, MARY L.  
Accounting Technician III

OLSON, JACQUE L.  
Division Secretary

O’MALLEY, DEREK R.  
College Police Officer

ORIEE, DEREK  
Student Activities Advisor

OWENS, MICHAEL D.  
Sports Therapist

PAANO, VENERANDA E.  
Secretary

PACKARD, ANNA  
Division Secretary

PAR, ANNEMARIE  
Case Coordinator-Rite

PARLE, GLORIA M.  
Senior Clerk

PARRIS, PATRICIA A.  
Senior Clerk

PARSCH, TIMOTHY J.  
Recording Specialist

PARSLEY, KRISTA  
Library Assistant

PEARCE, SHARON L.  
Senior Clerk

PENG, HONG  
Office Assistant

PEREZ-FLORES, MARIA  
Planning Assistant

PETerson, CHERYL  
College Police Officer

PETerson, JOHN W.  
Warehouse/Logistics Supervisor

PETTIT, MARCIA  
Associate Registrar

PHAM, NHA-ANH  
Library Technician II

PHAN, VANG V.  
Custodian

PHILLIPS, KEVIN  
College Police Officer

PHILLIPS, MALCOLM J., JR.  
Truck Driver

PHUONG, MARA  
Instructional Toolroom/Maintenance Mechanic

PIKE, JOHN W.  
Stage Technician

POLAND, CHRISTINA  
Senior Clerk

POLIN, BLAKE D.  
College Police Officer

POLLY, IRENE L.  
Financial Aid Technician

POPE, PAULA  
Intermediate Clerk

POTTER, LAURIE E.  
Instructional Associate II

POUNCIL, MATAIS D.  
Upward Bound Program Specialist

QUINTERO, PAUL-ANTHONY  
Program Specialist

QUIRK, PAUL J.  
Director of Support Services

RALEY, LINDA M.  
Athletic Equipment Assistant

RANSOM, CEDRIC T.  
Custodian
RAVEN, SHARON C.
Secretary

RAY, KARREN J.
Executive Secretary

RECHARTE, CHRISTINE
Intermediate Clerk

REEDER, DANIEL
Theater Production Technician

REMETA, ROBERT W.
Instructional Equipment Technician

RESURRECCION, JULIE A.
Library Assistant

RICHEE, TINA
Supplies Clerk

RIOS, REFUGIO
Custodian

RIVERS, STANLEY
Skilled Maintenance Worker

ROBERTS, LYNDA M.
Child Development Specialist

ROBINSON, PATRICIA L.
Communications Assistant I

RODRIGUEZ, MARIA N.
Intermediate Clerk

ROGERS, PAMELA
Child Development Specialist

ROSETH, LINDA
Division Secretary

ROSS, PATRICK
Instructional Multi-Media Web Programmer

ROSSMANNKE, FRED H.
Lead Media Producer

RUALO, DANIO C.
Lead Custodian

RUALO, EMMANUEL G.
Custodian

RUBALCABA, MARIA
Admissions and Records Assistant

RUBIO, ROY
Grounds Equipment Operator

RUELAS, GUADALUPE
Senior Clerk

RUHE, DALE
Public Information Specialist

RUIZ, NOELIA
Financial Aid Technician

RUMAGUIRA, PABLO
Custodian

RUPIO, ART A.
College Police Officer

SABO, RUDY C.
Skilled Maintenance Worker

SABO, RUDY C.
Skilled Maintenance Worker

SADLER, CECILIA
Educational Technologist

SANDERS, PAMELA
Accounting Assistant II

SANJUAN, LUCIA
Bilingual Counselor Assistant

SANTOS, RODOLFO S.
Custodian

SANTOSCOY, OSCAR
Computer Laboratory Technician

SATELE, TAUAOSI M.
Senior Clerk

SAU, CHANDOSI
Intermediate Clerk

SAUMURE, NORMAND F.
Plumber

SAVAGE, MARGARET K.
Instructional Associate II

SCHAMBER, LYNN A.
Media/Graphic Design Specialist

SCHITAI, AMIT
Director, Distance Learning and Instructional Technology

SCHLICK, DAVID
User Support Network Coordinator

SCHMALZRIED, M. YVONNE
Senior Clerk

SCHNEIDER, LOIS M.
Secretary

SCHWANDNER, GAIL B.
Administrative Operations Manager

SCOTT, ELIZABETH
Senior Clerk

SCRUGGS, TINA
Division Secretary

SHANDOR, DAVID B.
Lead Grounds Maintenance Worker

SHAYEGH, MEHRDAD
Computer Laboratory Technician

SHEFFIELD, N. SHAYNE
Library Technician II

SHERNELL-BANKS, DEATRICE
EOP&S Program Coordinator

SIM, SODELIS
Case Coordinator-Rite

SIMECEK, LINDA G.
Supplies Clerk

SLATER, WENDY I.
Senior Clerk

SLOAN, SHENEUI
Director of Technology Education

SMITH, CYNTHIA M.
Risk Services Specialist

SMITH, KELLEY W.
Grounds Maintenance Mechanic

SORENSON, BARBARA J.
College Center Coordinator

SORG, Daron L.
Costume Technician

SPARKS, ROBERT W.
Office Assistant

SPARKS, SHIRLEY J.
Accounting Technician III

SPENCER-WATKINS, DENISE
Director, Contracting & Procurement

STEVENSON, JILL G.
Senior Clerk

STEWART, JOHN
Custodian

STEWART, LISA A.
Senior Clerk

STRICKLAND-RUIZ, JOHNNIE
Senior Clerk

STRODE, TIMOTHY W.
Custodian

SUTTON, LINDA E.
Senior Clerk

SWEET-KELLY, DEBORAH
Intermediate Clerk

SY, MYRNABELLE
Library Assistant

SYBESMA, KAREN K.
Senior Clerk
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYBESMA, SAMUEL H.</td>
<td>Senior Clerk</td>
<td>Grounds Maintenance Worker</td>
</tr>
<tr>
<td>TAROS, ELIZABETH</td>
<td>Senior Clerk</td>
<td>Instructional Aide</td>
</tr>
<tr>
<td>TERAOKA, ADAM</td>
<td>Senior Clerk</td>
<td>Powertools Lab Technician</td>
</tr>
<tr>
<td>THACH, PHUONG MINH</td>
<td>Senior Clerk</td>
<td>Case Coordinator-Rite</td>
</tr>
<tr>
<td>THOEURB, TEP</td>
<td>Senior Clerk</td>
<td>DSPS Technical Aide</td>
</tr>
<tr>
<td>THOITS, MARY</td>
<td>Senior Clerk</td>
<td>Manager, Senior Studies</td>
</tr>
<tr>
<td>THOMAS, JAMES</td>
<td>Senior Clerk</td>
<td>College Police Officer</td>
</tr>
<tr>
<td>THOMAS, LAURA Y.</td>
<td>Senior Clerk</td>
<td>Accounting Technician I</td>
</tr>
<tr>
<td>THOMPSON, DANA P.</td>
<td>Senior Clerk</td>
<td>Heating, Ventilation, Air Conditioning Mechanic</td>
</tr>
<tr>
<td>THORPE, MARY L.</td>
<td>Senior Clerk</td>
<td>Accountant</td>
</tr>
<tr>
<td>THRIFT-VIVEROS, LOURDES</td>
<td>Senior Clerk</td>
<td>Child Development Associate Specialist</td>
</tr>
<tr>
<td>TILL, DAVID W.</td>
<td>Senior Clerk</td>
<td>Painter</td>
</tr>
<tr>
<td>TIM, RAOTANA C.</td>
<td>Senior Clerk</td>
<td>Senior Clerk</td>
</tr>
<tr>
<td>TO, DANIEL C.</td>
<td>Senior Clerk</td>
<td>Lead Custodian</td>
</tr>
<tr>
<td>TOLLIVER, SIMONE R.</td>
<td>Senior Clerk</td>
<td>Purchasing Clerk</td>
</tr>
<tr>
<td>TORK, KEARNIK</td>
<td>Senior Clerk</td>
<td>Case Coordinator-Rite</td>
</tr>
<tr>
<td>TORTAROLO, JOHN</td>
<td>Senior Clerk</td>
<td>Director, Human Resources</td>
</tr>
<tr>
<td>TOUCH, SUNLENG</td>
<td>Senior Clerk</td>
<td>User Support Network Coordinator</td>
</tr>
<tr>
<td>TRAN, LISA</td>
<td>Senior Clerk</td>
<td>Case Coordinator-Rite</td>
</tr>
<tr>
<td>TRAN, TRANG-ANH</td>
<td>Senior Clerk</td>
<td>Workforce Development Coordinator-Rite</td>
</tr>
<tr>
<td>TREJO, OSCAR A.</td>
<td>Senior Clerk</td>
<td>Maintenance Supervisor</td>
</tr>
<tr>
<td>TRINH, LAN X.</td>
<td>Senior Clerk</td>
<td>Bilingual Assistant Job Developer</td>
</tr>
<tr>
<td>TRUITT, JAMES D.</td>
<td>Senior Clerk</td>
<td>Instructional Associate I</td>
</tr>
<tr>
<td>TUNSTILL, KAYE</td>
<td>Senior Clerk</td>
<td>Instructional Assistant</td>
</tr>
<tr>
<td>USELTON, JOAN A.</td>
<td>Senior Clerk</td>
<td>Administrative Secretary</td>
</tr>
<tr>
<td>VALLADOLID, NOE</td>
<td>Senior Clerk</td>
<td>Instructional Assistant</td>
</tr>
<tr>
<td>VAN TILBORG, RENE N.</td>
<td>Senior Clerk</td>
<td>College Police Shift Supervisor</td>
</tr>
<tr>
<td>VARDEMAN, BEVERLY K.</td>
<td>Senior Clerk</td>
<td>Division Secretary</td>
</tr>
<tr>
<td>VAUGHN, DARA</td>
<td>Senior Clerk</td>
<td>Senior Clerk</td>
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<tr>
<td>VAUGHN, JANICE K.</td>
<td>Senior Clerk</td>
<td>Buyer</td>
</tr>
<tr>
<td>VIRAMONTES, CONSUELO</td>
<td>Senior Clerk</td>
<td>Purchasing Clerk</td>
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<tr>
<td>VIRAMONTES, RICHARD</td>
<td>Senior Clerk</td>
<td>Custodian</td>
</tr>
<tr>
<td>VOELKER, SCOTT H.</td>
<td>Senior Clerk</td>
<td>Programmer Analyst</td>
</tr>
<tr>
<td>VOS, RONALD</td>
<td>Senior Clerk</td>
<td>Grounds Maintenance Worker</td>
</tr>
<tr>
<td>VU, MINH</td>
<td>Senior Clerk</td>
<td>Case Coordinator-Rite</td>
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<tr>
<td>VU, THOMAS H.</td>
<td>Senior Clerk</td>
<td>Offset Press Operator</td>
</tr>
<tr>
<td>WADE, CHERRI</td>
<td>Senior Clerk</td>
<td>Senior Clerk</td>
</tr>
<tr>
<td>WARE, BARBARA A.</td>
<td>Senior Clerk</td>
<td>Locker Room Attendant</td>
</tr>
<tr>
<td>WATSON, DIANA C.</td>
<td>Senior Clerk</td>
<td>Secretary</td>
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<tr>
<td>WATSON, GABRIEL</td>
<td>Senior Clerk</td>
<td>User Support Network Coordinator</td>
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<tr>
<td>WATTS, DEBRA J.</td>
<td>Senior Clerk</td>
<td>Child Development Specialist</td>
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<tr>
<td>WEBB, WILLIAM C.</td>
<td>Senior Clerk</td>
<td>Student Activities Advisor</td>
</tr>
<tr>
<td>WHEELER, STEPHEN D.</td>
<td>Senior Clerk</td>
<td>Grounds and Transportation Manager</td>
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<tr>
<td>WHITFIELD, MICHELLE</td>
<td>Senior Clerk</td>
<td>Assistant Director, Workforce Development</td>
</tr>
<tr>
<td>WHITTED, BARBARA A.</td>
<td>Senior Clerk</td>
<td>Communications Assistant II</td>
</tr>
<tr>
<td>WILDER, CAROL J.</td>
<td>Senior Clerk</td>
<td>Data Processing Technician</td>
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<tr>
<td>WILEY, KARLA K.</td>
<td>Senior Clerk</td>
<td>Administrative Secretary</td>
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<tr>
<td>WILLIAMS, CHERYL</td>
<td>Senior Clerk</td>
<td>Custodian</td>
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<tr>
<td>WILLIAMS, GARY</td>
<td>Senior Clerk</td>
<td>Student Resources/Program Specialist</td>
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<tr>
<td>WILLIAMS, GLORIA</td>
<td>Senior Clerk</td>
<td>Deaf Services Specialist</td>
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<tr>
<td>WILLIAMS, MICHELLE M.</td>
<td>Senior Clerk</td>
<td>Financial Aid Technician</td>
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<tr>
<td>WILLIAMSON, CECILIA</td>
<td>Senior Clerk</td>
<td>College Police Officer</td>
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<tr>
<td>WILLIAMSON, LUCINDA</td>
<td>Senior Clerk</td>
<td>Child Development Specialist</td>
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<tr>
<td>WILLSON, SHANNON B.</td>
<td>Senior Clerk</td>
<td>Division Secretary</td>
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<tr>
<td>WOLFE, KARON A.</td>
<td>Senior Clerk</td>
<td>Senior Clerk</td>
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<tr>
<td>WOLFSLAU-BRETT, LINDA S.</td>
<td>Senior Clerk</td>
<td>Senior Clerk</td>
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<tr>
<td>WOODWARD, JANNA</td>
<td>Senior Clerk</td>
<td>Senior Clerk</td>
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<td>WRIGHT, STEVEN S.</td>
<td>Senior Clerk</td>
<td>Custodian</td>
</tr>
<tr>
<td>WYANT, LILLIAN L.</td>
<td>Senior Clerk</td>
<td>Executive Assistant to Superintendent/President</td>
</tr>
<tr>
<td>YARBROUGH, CHARLOTTE A.</td>
<td>Senior Clerk</td>
<td>Senior Clerk</td>
</tr>
<tr>
<td>YBARRA, ANTONIO</td>
<td>Senior Clerk</td>
<td>User Support Network Coordinator</td>
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<tr>
<td>YENTCH, RICHARD</td>
<td>Senior Clerk</td>
<td>Associate Director, Financial Aid</td>
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<tr>
<td>YURKSTITIS, HILDA</td>
<td>Senior Clerk</td>
<td>Assessment Technician</td>
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<tr>
<td>ZAMARRIPA, MAGDALENO</td>
<td>Senior Clerk</td>
<td>Truck Driver</td>
</tr>
<tr>
<td>ZEILINGER, WILLIAM</td>
<td>Senior Clerk</td>
<td>Graphic Design Specialist</td>
</tr>
<tr>
<td>ZEPEDA, BLANCA</td>
<td>Senior Clerk</td>
<td>Bilingual Counselor Assistant</td>
</tr>
<tr>
<td>ZORN, KATHY</td>
<td>Senior Clerk</td>
<td>Mentor Coordinator, Title V/ Office Assistant</td>
</tr>
<tr>
<td>ZORN, LARRY M.</td>
<td>Senior Clerk</td>
<td>Skilled Maintenance Worker</td>
</tr>
<tr>
<td>ZUNIGA, LIZBETH</td>
<td>Senior Clerk</td>
<td>Instructional Assistant</td>
</tr>
</tbody>
</table>
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