LONG BEACH CITY COLLEGE
CATALOG 2002-2003
VOLUME XLV

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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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, year-book, 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.-3 p.m., Monday-Thursday, and 8 a.m.-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 12-4:30 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 <u>intensive</u> 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:

GPA COMPOSITE*	SAT TOTAL*	ACT
4.0	800	20
3.9	850	21
3.8	900	22
3.7	950	23
3.6	1000	24
3.5	1050	25
3.4	1100	26
3.3	1150	27
3.25	1175	27

*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

- Facilitation of placement in four-year college Honors Programs
- President's Scholar Honors upon graduation
- Academic Senate Scholar Honors upon transfer
- Guaranteed admission to universities at the junior level

For further information concerning the application process for the Honors Program, call (562)938-4354 or visit the Honors Program Office in the LAC Library Mezzanine, L203A.

Admissions & Registration Information

Admission Requirements

Any person 18 years or older, or who has a high school diploma or its equivalent, is eligible to enroll at Long Beach City College, provided the applicant otherwise meets the admission requirements. Under certain conditions, K-12 students may also attend college classes.

All students are classified as either a California "resident" or a "non-resident." In general, a student must have lived in the state of California with full intent to remain as a permanent resident for at least one year prior to the start of the semester in order to be classified as a "resident."

In order to be considered California residents, students must provide evidence of intent to become a permanent California resident, such as a California driver's license, voter registration, car registration, proof of purchase of a home, etc, that is a year old before the semester begins. No single document is necessarily conclusive proof. California residence cannot be granted if there is evidence of any such document from another state. Residence for unmarried minors (those under 18) will be determined by the residence of the parent with whom the student lives. **Students must establish that they have lived in California, with the intent to become a permanent resident, for more than one year before the start of the semester they plan to attend.**

Students who are not U.S. citizens must verify their immigration status at the time of registration. If classified as non-resident, they must pay non-resident tuition. Foreign students who plan to enroll with a student visa (F-1) must have the application files completed at least three weeks before the start of the semester. No I-20 will be issued until all requirements are met.

The above statements on residence are not intended to include all of the laws governing residence. The full text of the laws is presented in the California Education Code, available in the college library.

Students must submit the appropriate admissions applications and/or enrollment forms for each term they wish to attend. Documents, such as applications and transcripts, submitted to the college become the property of Long Beach City College and will not be returned and may not be duplicated.

Matriculation

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. <u>College's Responsibility</u>
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. <u>Student's Responsibility</u>
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. <u>Components of Matriculation</u>
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 <u>FULLY MATRICULATED</u>. (See V. for exemptions)

IV. <u>Matriculation Requirement</u>

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.

   4. Contract 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 com-pleted 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 text book and supplies purchased, 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 permis-sion 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 demon-strate 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

The Long Beach Community College District is committed to providing an appropriate environment free from illicit drugs and alcohol. As a preventive measure, appropriate information regarding the health risks associated with the use of illicit drugs and abuse of alcohol will be provided for students. This information may be obtained from the College Health Services Offices–(LAC) (562)938-4210 or (PCC) (562)938-3992. In addition, information may be obtained regarding counseling, treatment, rehabilitation and re-entry programs. Long Beach City College offers forums and other educational programs regarding the harmful effects of drugs and alcohol. Information regarding programming may be obtained from the Office of Student Affairs, (562)938-4154. All inquiries will be held in the strictest confidence.

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 regu-lar 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% attained 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% transferred to another California postsecondary institution (CSU, UC or another California Community College) prior 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 http://srtk.cccco.edu.

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, dramatics, 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 Place-ment 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

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.

The LAC Student Health Center is located in Q120-124, near the pool area. The PCC Student Health Center is located in the administration area in AA101-106. For information concerning current hours of operation or to make an appointment, telephone (562)938-4210 for the LAC Center or (562)938-3992 for the PCC Center.

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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. 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 (540 hours) and $6.78 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 bulletins 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.

Financial Aid Office	Financial Aid Office
Liberal Arts Campus	Pacific Coast Campus
4901 E. Carson Street	1305 E. Pacific Coast Hwy
Long Beach, CA 90808	Long Beach, CA 90806
(562)938-4257	(562)938-3955

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-

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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.

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

Amendments Act of 1972, the Rehabilitation Act of 1973, Sections 503 and 504 and the Americans with Disabilities Act of 1990.

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 comunicarse con Irma Ramos, Director of Human Resources and Staff Diversity, 4901 E. Carson St., Long Beach, CA 90808, (562) 938-4095.

Articulo IX Prohibe La Discriminacion Sexual En La Educacion

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 excluída 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 comunicarse 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 comunicarse 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 comunicarse con Irma Ramos, Director of Human Resources and Staff Diversity, 4901 E. Carson St., Long Beach, CA 90808, (562)938-4095.

Seccion 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 WordPerfect) 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
Beginning and advanced courses help the student develop computer skills through a combination of short scheduled lectures and computer practice at the student's own pace. Courses provide training in Microsoft Windows Operating System (Beginning and Advanced), Microsoft Word (Beginning, Intermediate, Advanced and Expert), Excel (Beginning, Intermediate and Advanced), Desktop Publishing-Business I, II, III and IV, Business Graphics-Paint/Draw Software, PowerPoint for Windows, Excel MOUS Proficient-User Exam Preparation, Speed and Accuracy Building for Typists and Computer Keyboarding.

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 certificated 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 <u>must</u> 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. <u>Students not attending the first class session may be dropped from the class at the discretion of the instructor.</u> 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 com-plete 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

first be approved by the instructor and then submitted to the Grade Review Committee for final disposition.

Withdrawal - The grade of "W" shall be assigned for withdrawal from a class or classes in accordance with the schedule below for both a student-initiated withdrawal and instructor-initiated drop. One exception is when a student is required to leave a class for reasons of academic dishonesty; then a grade of "F" may be given. Another exception is for military withdrawal, in which an "MW" is assigned.

1. **Students withdrawing or being dropped** after the final limit 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.

Class Length (Weeks)	Deadline Week
Semester (17.5-19)	14
17	13
16	12
15,14	11
13	10
12	9
11,10	8
9	7
8	6
7,6	5
5	4
4	3
3	2

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.

Grade Points

A system 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.

Change of Grades

A semester grade, once determined by the instructor and reported, shall be final in the absence of mistake, fraud, bad faith or incompetency.

A student who believes a final grade to be incorrect may file a "Request for Change of Grade" form obtained from the office of Admissions and Records. All requests for grade change should be made by the student, in writing, within two years after the end of the semester in which the grade in question was earned. In the absence of the instructor, the request shall be referred to the Grade Review Committee.

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."

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 sup-ported 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 unavail-able) 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 study 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 combi-nation 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 <u>not</u> 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. Courses numbered 99 in the following table are elective credit.

AP Courses and AA/AS Degree General Education Requirements

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

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)

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 though 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. Course work must have been completed within the last three years.

4. Credit will be given for nursing courses comparable to those offered at Long Beach City College. 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:

	Paid Employment	Volunteer
1 unit Work Experience Class	75 hours	60 hours
2 units Work Experience Class	150 hours	120 hours
3 units Work Experience Class	225 hours	180 hours

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 with-out regard to race, age, sex, religion, color, national ori-gin, 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 also 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).

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 footgear.

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 sum-mary 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.

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 AWARE THAT STARTING ONE PLAN DOESN'T PRECLUDE CHANGING TO ANOTHER. IT IS POSSIBLE TO CHANGE PLANS WITH PROPER COUNSELING.

STUDENTS SHOULD BE ADVISED THAT THE ASSOCIATE DEGREE COMPRISES TWO MAJOR COMPONENTS: A GENERAL EDUCATION PATTERN AND A FIELD OF CONCENTRATION. A TRANSFER PROGRAM COM-PRISES 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 sys-tem. 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 recom-mends 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. **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 class 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 each of these required courses and an overall "C" aver-age in all transferable college course work. If less than 12 semester or quarter units of transferable college coursework are completed, the examination requirements for freshman applicants must also be satisfied.

   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.

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.

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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T	A	CA	
SCHOOL OF BUSINESS & SOCIAL SCIENCE			
BUSINESS			
Business Administration			
X	X	X	Accounting
	X	X	Accounting Clerk
X	X	X	Business Administration
X	X	X	Business, General
X	X	X	Business, International
X	X	X	Business, Management
X	X	X	Marketing
X	X	X	Merchandising
X	X	X	Real Estate
X	X	X	Retail Management
		X	Retail Management, Food Industry Emphasis
X	X	X	Retail Merchandising Management
Computer & Business Info Systems			
X	X	X	Computer Application Specialist
X	X	X	Computer Programming (Bus. Info. Systems)
Computer & Office Technologies			
	X	X	Administrative Assistant
X	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	X	Food & Beverage Management
X	X	X	Travel Industry

T	A	CA	
			SOCIAL SCIENCE
			Public Services
X	X	X	Administration of Justice
X	X	X	Fire Science
X	X	X	Human Services
			Social Science
X	X		Social Sciences

SCHOOL OF CREATIVE ARTS & APPLIED SCIENCE

CREATIVE ARTS

T	A	CA	
			Art
X	X	X	Art: Applied Design, Art History, Computer Art & Design, Drawing & Painting, General Art, Graphic Design, Illustration, Printmaking, Sculpture
	X	X	Desktop Publishing
X	X	X	Photography
			Fine Arts
	X		Fine Arts
			Music/Radio/Television
X	X		Music
X	X	X	Commercial Music: Arranger
X	X	X	Commercial Music: Professional Instrumentalist
X	X	X	Commercial Music: Professional Technology
X	X	X	Commercial Music: Professional Vocalist
X	X	X	Commercial Music: Record Producer
X	X	X	Commercial Music: Recording Engineer
X	X	X	Commercial Music: Songwriter
X	X	X	Radio/Television: Broadcast News
X	X	X	Radio/Television: Multimedia Production
X	X	X	Radio/Television: Performance
X	X	X	Radio/Television: Producer
			Speech Communication
X	X		Speech Communication
			Theatre Arts
X	X		Dance
X	X		Film
X	X		Theatre: General, Acting and Technical Emphases

APPLIED SCIENCES

T	A	CA	
			Child Development
X	X	X	Child Development
	X	X	Early Childhood Education
	X	X	School Age Child Care
	X	X	Special Education Assistant
			Family & Consumer Studies
	X	X	Dietetics Program: Dietetic Technician and Dietetic Service Supervisor
X	X	X	Family and Consumer Studies

T	A	CA	
X	X	X	Fashion Design
	X	X	Fashion Design–Assistant Designer
		X	Fashion Design–Patternmaker
		X	Fashion Design–Samplemaker
X	X	X	Fashion Merchandising
	X	X	Floral Design
X	X	X	Interior Design
X	X	X	Interior Design: Technical Skills

SCHOOL OF HEALTH & SCIENCE

MATHEMATICS & SCIENCE

T	A	CA	
			Life Science
X	X		Biological Sciences
			Mathematics & Engineering
X	X		Engineering
X	X		Mathematics
			Physical Science
X	X		Physical Sciences

NURSING & ALLIED HEALTH

T	A	CA	
			Allied Health
	X	X	Medical Assisting: Clinical and/or Administrative Certificate
	X	X	Diagnostics Medical Imaging (Rad Tech)
			Nursing
X	X	X	Associate Degree (RN Program)
X	X	X	LVN to RN Career Ladder Program
	X	X	Vocational

SCHOOL OF LANGUAGE ARTS & PHYSICAL EDUCATION

LANGUAGE ARTS

T	A	CA	
			English
	X	X	Desktop Publishing
X	X		English: Language & Literature, Creative Writing Sequence
X	X	X	Journalism: Newspaper/Magazine, Public Relations, Publication Specialist

PHYSICAL EDUCATION

T	A	CA	
X	X		Physical Education/Recreation

SCHOOL OF TRADES & INDUSTRIAL TECHNOLOGIES

TRADE & INDUSTRIAL

T	A	CA	
			Aero-Pilot Training
X	X	X	Aviation (Professional Pilot)
X	X		Aviation Administration
			AutoBody
	X	X	Auto Body Repair
			Auto Mechanics/Diesel
	X	X	Advanced Transportation
			Technology: Alternate Fuels
	X	X	Advanced Transportation

T   A   CA

Technology: Electric Vehicles

X	X		Auto Mechanics
X	X		Diesel Mechanics
			Aviation Maintenance
X	X		Aviation Maintenance

Construction & Related Trades

X	X		Air Conditioning/Refrigeration-Occupational Prep
X	X		Air Conditioning/Refrigeration-Occupational (Evening)
X	X		Cabinet Making/Furniture Making
X	X		Carpentry Tech/Trade Home Remodel & Repair
X	X		Horticulture
X	X		Mechanical Maintenance Technology

Drafting

X	X	X	Architectural Design (Transfer)
X	X		Architectural Drafting (Occupational)
	X	X	Drafting – Mechanical & Design (Occupational)
X	X	X	Machine Operator/Manufacturing Technology
X	X	X	Numerical Control Tech/Manufacturing Technology
X	X	X	Tool Design/Manufacturing Technology

Electronics/Electricity

X	X		Electrical Technology
X	X	X	Electronics Technology

Manufacturing Technology

X	X		Machine Tool Technology
X	X		Sheet Metal
X	X		Welding Technology (Prep)

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.).

COMPLETION CERTIFICATE	CURRICULUM GUIDES
Adobe Pagemaker	Desktop Publishing
Advanced Transportation Technology- Light—Medium Duty Alternate Fuels	Advanced Transportation Technology – Alternate Fuels or Auto Mechanics
Advanced Transportation Technology- Electric Vehicle	Advanced Transportation Technology – Electric Vehicle or Auto Mechanics
Advanced Transportation Technology-Heavy Duty Alternate Fuels	Advanced Transportation Technology – Alternate Fuels or Auto Mechanics
Air Reservation Specialist	Travel Industry
Aircraft Interior Cabinetmaker Trainee	Cabinet/Furniture Making Technology
Application Developer	Computer Business Information Systems
Applied Food Service Sanitation in Hotel/ Restaurant Management	Baking
Baking and Pastry 1	Culinary Arts
Baking and Pastry 2	Culinary Arts
Basic Business Communication	Administrative Assistant or Word Processing
Basic Data Entry	Data Entry
Basic Desktop Publishing	Desktop Publishing
Basic Legal Office Procedures	Legal Secretary
Basic Microsoft Access	Administrative Assistant or Computer Application Specialist or Office Assistant
Basic Office Computer Skills	Office Assistant or Word Processing
Basic Office Skills	Administrative Assistant or Legal Secretary or Office Assistant
Basic Word Processing	Medical Transcription or Office Assistant or Word Processing
Cabinetmaker Trainee	Cabinet/Furniture Making Technology
Carpenter Trainee	Carpentry Technology/Trade
Child Dev. Permit Specialization – Art for Children	Early Childhood Education
Child Dev. Permit Specialization – Child Health	Early Childhood Education
Child Dev. Permit Specialization – Child w/ Exceptional Needs	Early Childhood Education
Child Dev. Permit Specialization – Family Child Care	Early Childhood Education
Child Dev. Permit Specialization – Infant/Toddler	Early Childhood Education
Child Dev. Permit Specialization – Multicultural	Early Childhood Education
Child Dev. Permit Specialization – Music	Early Childhood Education
Child Dev. Permit Specialization – School Age	Early Childhood Education
Commercial Cake Decorating	Culinary Arts
Commercial Formal Buffet	Culinary Arts
Communications Electronics	Electronics Technology
COREL WordPerfect	Administrative Assistant or Legal Secretary or Office Assistant or Word Processing
Cruise Specialist	Travel Industry
Early Childhood Education – Assistant Teacher	Early Childhood Education
Early Childhood Education – Associate Teacher	Early Childhood Education
Emergency Medical Technician	Medical Assisting
Fashion Design Update	Fashion Design
Fluoroscopy	Diagnostic. Medical Imaging
Food Preparation 1	Culinary Arts
Food Preparation 2	Culinary Arts
Food Preparation 3	Culinary Arts
Health Unit Coordinator	Medical Assisting
Home Health Aide	Vocational Nursing
Home Remodeling & Repair Technician	Carpentry Technology/Trade

COMPLETION CERTIFICATE	**CURRICULUM GUIDES**
Hotel, Restaurant: Institutional Cooking 1	Culinary Arts
Hotel, Restaurant: Institutional Cooking 2	Culinary Arts
Introduction to Baking	Culinary Arts
Java Web Programmer	Computer Business Information Systems
Legal Secretary	Legal Secretary
Mammography	Diagnostic Medical Imaging
Mechatronics	Electronics Technology
Medical Insurance Billing	Medical Assisting
Microsoft Access	Data Entry
Microsoft Excel	Administrative Assistant or Computer Application Specialist or Office Assistant or Word Processing
Microsoft Word	Administrative Assistant or Legal Secretary or Office Assistant or Word Processing
Network Cabling Specialist	Electronics Technology
Network Installation	Electronics Technology
Network Installation and Design	Electronics Technology
Nurse Aide	Vocational Nursing
Oracle Developer	Computer Business Information Systems
Phlebotomy	Medical Assisting
Pre-apprenticeship Training	Carpentry Technology/Trade
Professional Gourmet Cooking	Culinary Arts
Travel Destinations	Travel Industry
Travel Industry Management Specialist	Travel Industry
Windows 2000 Network Administrator	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
ACCTG 1A Principles of Accounting (F, SP, S)	4
†ACCTG 1B Principles of Accounting (F, SP, S)	4
ACCTG 205 Fundamentals of Tax (F, SP)	3
†ACCTG 228 Computerized General Ledger Accounting Systems (F, SP)	2
†ACCTG 229 Spreadsheet Accounting (F, SP)	3
CAOTC 35 Microsoft Office (F, SP)	3
CAOT0 15 Business Communications (F, SP)	3
CAOTT 233 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:**
ACCTG 18 Credit & Financial Statement Analysis (SP)	3
ACCTG 200A Introduction to Accounting	3
ACCTG 230 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

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

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
PUBAD1Introduction to Public Administration (F,SP) 3
PUBAD4 Fundamentals of Supervision (SP) 3
Subtotal units **6**

TOTAL UNITS **24**

NOTE: Any 200, 300 or 400 band course in Admin-
istration 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, S) 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, S) 3
†SP 30 Elements of Group Discussion (F, SP, S) 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 pro-
vide 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**
•CAOTC31A Microsoft Windows, Beginning (F,SP,S) 1
•CAOTC39C, D Microsoft Word for Office,
Levels 3-4 (F, SP, S) 1:1
CAOTC41F Excel for Windows, Intermediate (F,SP,S) 1
•CAOTC44D PowerPoint for Windows, Beg. (F,SP) 1
•CAOTC45 Telecommunications and the Internet
(F,SP,S) 2
•CAOTC47A Access for Office Applications,
Beginning (F,SP) 3
•CAOTC215A Microsoft Outlook (F,SP) 2
CAOTO15 Business Communications (F,SP) 3
CAOTO30 Business Calculating Machines (F,SP,S) 2
CAOTO214A, B Filing A and Filing B (F, SP, S) 1:1
CAOTO216 Proofreading Skills (F,SP) 1
CAOTO222 Employment Testing and Interviewing
(F, SP) 3
CAOTO260 Business Telephone Procedures (F,SP,S) 1
CAOTO261 Business English (F,SP,S) 3
CAOTO263 Customer Service (F,SP,S) 1
•CAOTT201 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, S) 3
•CAOTC 39A,B Microsoft Word for Office,
Levels 1-2 (F, S) 1:1
•¶CAOTC 41E,J Excel for Windows, Beginning &
Advanced (F, SP, S) 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,S) 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,S) 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**

TOTAL UNITS 33

COMPLETION CERTIFICATES:
Basic Business Communications Certificate

REQUIRED COURSES	UNITS
CAOTC 39A Microsoft Word for the Office, Beg.	1
CAOTC 44D PowerPoint for Windows	1
CAOTO 15 Business Communications	3
CAOTO 261 Business English	3
CAOTO 262 Professional Development for the Office	1
TOTAL UNITS	**9**

Basic Microsoft Office Certificate

REQUIRED COURSES	UNITS
CAOTC 35 Microsoft Office	3
TOTAL UNITS	**3**

Basic Office Skills Certificate

REQUIRED COURSES	UNITS
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**

COREL WordPerfect Certificate

REQUIRED COURSES	UNITS
CAOTC 236A Word Processing-WordPerfect, Beginning	1
CAOTC 236B Word Processing-WordPerfect, Intermediate	1
CAOTO 236C Word Processing-WordPerfect, Advanced	1
CAOTO 236D Word Processing, WordPerfect, Expert	1
TOTAL UNITS	**4**

Microsoft Access Certificate

REQUIRED COURSES	UNITS
CAOTC 47A Access for Office Applications, Beg	3
CAOTC 47B Access for Office Applications, Int	3
TOTAL UNITS	**6**

Microsoft Excel Certificate

REQUIRED COURSES	UNITS
CAOTC 41E Excel for Windows-Beginning	1
CAOTC 41F Excel for Windows-Intermediate	1
CAOTC 41J or Excel for Windows-Advanced	1
TOTAL UNITS	**3**

Microsoft Word Certificate

REQUIRED COURSES	UNITS
CAOTC 39A Microsoft Word for the Office, Beg	1
CAOTC 39B Microsoft Word for the Office, Int	1
CAOTO 39C Microsoft Word for the Office, Advanced	1
CAOTO 39D Microsoft Word for the Office, Expert	1
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	UNITS
AMECH 490 Introduction to Alternative Fuels	3.5
AMECH 491 Heavy Duty Alternative Fuels	3.5
AMECH 492 Heavy Duty Alternative Fuel Diagnosis & Repair	3.5
AMECH 493 Alternative Fuel Conversion, Diagnosis & Repair	3.5
Subtotal Units	**14**

Select *one* (1) class from the following:

	UNITS
AMECH 233 Electrical & Fuel	9
AMECH 236 Computers & Emissions	9
AMECH 333M1 Electrical Systems (9 weeks)	4.5
AMECH 333M2 Fuel 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 442 Fuel Systems (night)	6
AMECH 444 Electrical Systems (night)	6
DIESL 282 Diesel Four-Cycle Engine	10
DIESL 289 Caterpillar 3406 AND 3116	10
DIESL 293AD General Engines	4
Subtotal Units	**4-10**
TOTAL UNITS	**18-24**

COMPLETION CERTIFICATES

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**

ADVANCED TRANSPORTATION TECHNOLOGY
Electric Vehicles

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 211 Air Conditioning & Refrig. Fundamentals	10
AC/R 212 Electrical Theory & Component	
Application	10
†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
†AC/R 420AD Air Conditioning/Refrigeration Service & Repair	6:6:6:6
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**

RECOMMENDED **but not required courses:**
ELECT 202, †204, †206, †208, †210A, †210B, †212, †214, †216, †240, †245, †250

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 <u>certificate</u> will prepare students for an entry-level position in a variety of design profession settings and will serve as a foundation for specialization. This <u>Associate Degree</u> 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 <u>or</u> 4:4:4:4

Subtotal Units	**8**

Select *SIX* (6) units from the following:
*ART 1 Art & Civilization (F, SP)	3
*ART 3 Modern and Contemporary Art (F, SP)	3
ART 17AD Illustration I, Perspective (F)	3
*ART 30 Fund. of Art/Volume, Plane & Form (F, SP)	3
*ART 31 Fund. of Art/Comp. & Color (F, SP)	3
Subtotal Units	**6**

Select *THREE* (3) units from the following:
†* MATH 40 OR A more advanced Trigonometry level of Mathematics	3
Subtotal Units	**3**

Select *FOUR* (4) units from the following:
†* PHYS 2A General Physics	4
†* PHYS 3A Physics for Sci. & Eng. Mechanics	5
Subtotal Units	**4**
TOTAL UNITS	**37**

ARCHITECTURAL DRAFTING
(Occupational Program)

Career Certificate and/or Associate in Science

Students learn entry-level job skills in architectural drafting. This <u>certificate</u> will prepare students for an entry-level position in a variety of design profession settings and will serve as a foundation for specialization. This <u>Associate Degree</u> will prepare students for a 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 *24 units* from the following courses identified with "+".

The *Program Certificate* requires *37 units* as specified below.

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

Select *EIGHT* (8) units from the following:
†+ARCHT 70AB Architectural Design (F, SP) (one semester only)	8
†+ ARCHT 71AD Architectural Design (F, SP) (two semesters)	4:4
Subtotal Units	**8**

Select *SIX* (6) units from the following:
†CARP 311, 312 Carpentry I & II (one or two semesters)	3:3
CARP 440 Blueprint Reading for Construction Trade (F, SP)	3
Any course from Construction Trades Department	
Subtotal Units	**6**

Select *THREE* (3)-*FOUR* (4) units from the following:
†* ELTC 225 Survey of Algebra & Trigonometry OR	4

*A more advanced level of Mathematics	
Subtotal Units	**3-4**

Select *ONE* of the following courses:
†* PHYS 2A General Physics	4
†* PHYS 3A Physics for Sci. & Eng. Mechanics	5
Subtotal Units	**4**
TOTAL UNITS	**37-39**

NOTE: 300 numbered versions of classes may be used toward the total units required.

ART

Applied Design, Art History, Computer Art & Design, Drawing & Painting, General Art, Graphic Design, Illustration, Printmaking, Sculpture
Associate in Arts

This field of concentration is designed to provide a fundamental education for a variety of specializations within the field. It also substantially fulfills lower division requirements for a baccalaureate degree in this major. This <u>Associate Degree</u> will prepare students for transfer to a four-year college for university. For more departmental information call (562)938-4319.

CORE for ALL PROGRAMS
REQUIRED COURSES	UNITS
ART 1 Art and Civilization (F, SP)	3
ART 2 Art and Civilization (F, SP)	3
¶ART 15 Beginning Drawing (F, SP, S)	3
¶ART 23 Beginning Painting (F, SP, S)	3
+ART 30 Fundamentals of Art: Volume, Plane & Form (F, SP)	3
ART 31 Fundamentals of Art: Composition & Color (F, SP)	3
+ART 292 Professional Skills for Artists (SP)	3
Subtotal CORE Units	**15-21**

+ Not required for Art History specialization.

IN ADDITION, **complete the required courses in *ONE* of the following nine specific Programs:**

APPLIED DESIGN PROGRAM
Select *NINE* (9) units from the following:
ART 34AD Applied Design/Crafts (F, SP)	3:3
†ART 35AD, †36AD, †37AD Jewelry/Metalsmithing 1,2,3 (F, SP)	3:3:3
ART 50, †51AD, †52AD Ceramics I, II, III (F, SP)	3:3:3
Subtotal Units	**9**
TOTAL UNITS (including CORE)	**30**

RECOMMENDED courses but not required:
ART 3 (Modern & Contemporary Art), ART 4 (Tribal Art), †ART 38AD (Jewelry/Metalsmithing), †ART 53AD (Ceramics IV), ART 60AD/†61AD/62AD/63AD (Sculpture)

ART HISTORY PROGRAM
Complete the following TWELVE (12) units: UNITS

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
Subtotal Units **12**

TOTAL UNITS (including CORE) **27**

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) 3:3
†ART 44AD Computer Art for Graphic Design
   (F,SP) 3:3
†ART 45AD Computer Art for Drawing &
   Painting (F, SP) 3:3
†ART 46AD Computer Art & Design in 3-D
   Modeling (F, SP) 3:3
†ART 47AD Computer Art & Design for
   Multimedia (F, SP) 3:3
Subtotal Units **9**

TOTAL UNITS (including CORE) **30**

DRAWING AND PAINTING PROGRAM
Select *NINE* (9) units from *one* of the following groups:

Transfer Group:
ART 3 Modern and Contemporary Art (F) 3
ART 14AD Beginning Drawing, Overview
   (Two semesters only) (F, SP) 1.5:1.5
†ART 16AD Intermediate Drawing (F, SP) 3
ART19AD Life Drawing (One semester only) (F, SP) 3
ART 22AD Painting Overview (Two semesters only)
   (F, SP) 1.5:1.5
ART 24 Beginning Watercolor (F, SP) 3
†ART 26AD Figure Painting (One Semester Only)
   (F, SP) 3
†ART 27AD Intermediate Painting (F, SP, S) 3
ART 28AD Portrait Drawing & Painting
   (Two semesters only) (F, SP) 1.5:1:5
Subtotal Units **9**

TOTAL UNITS (including CORE) **30**

GENERAL PROGRAM
Select NINE (9) units from the following: **UNITS**
ART 4 Tribal Art (S) 3
ART 5 History of Asian Art (F) 3
ART 19AD Life Drawing (One semester only) (F, SP) 3
†ART 26AD Figure Painting (One semester only)
   (F, SP) 3
ART 34AD Applied Design/Crafts (One semester
   only) (F, SP) 3
ART 50 Ceramics I (F, SP) 3
ART 60 Sculpture (One semester only) (F, SP) 3

ART 41 Introduction to Computergraphics (F, SP) 3
ART 73AD Introduction to Printmaking (Two
   semesters only) (F, SP) 1.5:1.5
Subtotal Units **9**

TOTAL UNITS (including CORE) **30**

RECOMMENDED courses but not required:
ART 3 (Modern & Contemporary Art), †ART 24 (Beginning Watercolor), ART 34AD (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) 3:3
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
Subtotal Units **9**

TOTAL UNITS (including CORE) **30**

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
Subtotal Units **9**

TOTAL UNITS **30**

RECOMMENDED courses but not required:
ART 3 (Modern & Contemporary Art), ART 19AD (Life Drawing), ART 24/†25AD (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
Subtotal Units **8-9**

TOTAL UNITS (including CORE) **29-30**

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 1	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
†AMECH231 Engine 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	9
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
ACCTG 1A Principles of Accounting	4
*ECON 1B Micro Economics Analysis	3

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

LAW 18A Business Law 3
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 56 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 **4**
TOTAL UNITS **34**

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 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**

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 56 Meteorology (Se) 3
*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 57 Aircraft Powerplants & Related
  Systems (Fe) 3
AVPLT 59 Aero Systems (Se) 3
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-Eng.
  Simulator (One semester max.) (Fde, Sde) 2
AVPLT 71 Flight & Ground Instructor (Fe) 3
AVPLT 74 Transport Category Jet Aircraft Systems 6
*PEPF 70B Physical Fitness for Aviators (Se) 1

NOTE: Students should take PEPF 70A and PEPF 70B 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 **27**
Fde=Fall-morning, early afternoon or evening; Sde= Spring-morning, early afternoon or evening; SSe=Summer Session-evening; Se=Spring-evening; Fe=Fall-evening; Fd=Fall-day, FS 2 Sat=Fall & Spring-2 Saturdays only, even yr.=2002, etc, odd yr.=2001, etc.

RECOMMENDED COURSES **UNITS**
PHYS 10 Conceptual Physics 4

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	UNITS
F&N 250 Nutrition for Culinary (F, SP)	2
FDSRV 20 Applied Food Service Sanitation Hotel/Restaurant Management (F, SP)	3
FDSRV 204 Introduction to Baking (F)	5
†FDSRV 205 Baking & Pastry I (SP)	5
†FDSRV 206 Baking & Pastry II (INF)	5
FDSRV 207 Commercial Cake Decorating (INF)	5
†¶FDSRV 213A Food Preparation 1 (F, SP)	11.5
†FDSRV 270AD Work Experience Issues: Food Services (F, SP)	1

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	UNITS
FDSRV 20 Applied Food Service Sanitation Hotel/ Restaurant Management (F, SP)	3
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	UNITS
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	UNITS
ACCTG 1A Principles of Accounting (F, SP, S)	4
†ACCTG 1B Principles of Accounting (F, SP, S)	4
†*ECON 1A-B Principles of Economics (Macro/Micro)	3:3
LAW 18A Business Law (F, SP, S)	3

Select *ONE* of the following options:

†ºCBIS 8A BASIC Programming	4
†ºCBIS 8B Visual BASIC Programming	4
†ºCBIS 2 Help Desk Technician–Advanced MS	3
ºCBIS 6 Introduction to Information Systems	4

Select *ONE* of the following courses:

† *MATH 37 Finite Mathematics	3
† *MATH 47 Calculus for Business	3
†*MATH 50 Precalculus Mathematics	4
†*MATH 60 First Calculus Course	5
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 <u>certificate</u> will prepare students for an entry-level position in a variety of business settings and will serve as a foundation for specialization. This <u>Associate Degree</u> 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
¶ACCTG 200A Introduction to Accounting (F, SP, S)	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 229 Spreadsheet Accounting (F, SP)	3
ACCTG 230 Quick Books Accounting (F, SP)	1
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 80 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: (includes typing, computer keyboarding, computer applications, office technologies)	3
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**

*IBUS 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) AND	1

•MGMT 273AD Work Experience (F, SP)	3
MKTG 47 Essentials of Marketing (F, SP)	3
Subtotal Units	**6-7**

Select *TWO* (2) units from the following:

†ACCTG 1A-B Principles of Accounting (F, SP, S)	4:4
ACCTG18 Credit & Financial Statement Analysis (SP)	3
¶ACCTG 200A Introduction to Accounting	3
ºCAOTC 35 Microsoft Office (F, SP)	3
CAOTO 15 Business Communication (F, SP)	3
ºCBIS 6 Intro to Information Systems (F, SP S)	4
*ECON 1A-1B Macro & Micro Economic Analysis	3:3
GBUS 5 Introduction to Business (F, SP, S)	3
LAW 18A Business Law (F, SP, S)	3
MKTG 40 Salesmanship (F, SP)	3
MKTG 41 Advertising (F, SP)	3
Subtotal units	**6-8**
TOTAL UNITS	**24-27**

CABINET/FURNITURE MAKING TECHNOLOGY

Associate in Science/Career or Completion Certificate

Students prepare for entry-level positions in the cabinet making and furniture industry. Students can earn an Associate of Science Degree or Career Certificate in Cabinet/Furniture Making or a Completion Certificate in Cabinetmaker Trainee or Aircraft Interior Cabinetmaker Trainee. For more departmental information call (562) 938-3064 or 938-3054.

REQUIRED COURSES	UNITS
CABMK 201 Millwork and Cabinet Making 1	10
†CABMK 202 Millwork and Cabinet Making 2	10
†CABMK 203 Millwork and Cabinet Making 3	10
†CABMK 204 Millwork and Cabinet Making 4	10
TOTAL UNITS	**40**

COMPLETION CERTIFICATES

Cabinetmaker Trainee Certificate

REQUIRED COURSES	UNITS
CABMK 301 Introduction to Wood Products Mfg.	4
†CABMK 302 Millwork and Cabinet Making 2	4
†CABMK 303 Millwork and Cabinet Making 3	4
†CABMK 304 Millwork and Cabinet Making 4	4
TOTAL UNITS	**16**

Aircraft Interior Cabinetmaker Trainee Certificate

REQUIRED COURSES	UNITS
CABMK 301 Introduction to Wood Products Mfg.	4
†CABMK 455 Wood Products for Aircraft Interiors	4
TOTAL UNITS	**8**

CARPENTRY
Technology/Trade
Home Remodeling & Repair
Career or Completion Certificate/Associate in Science

Students prepare for jobs in the carpentry industry. Students can earn an Associate of Science Degree or Career Certificate in Carpentry Technology, a Completion Certificate in Carpentry Trainee or a Completion Certificate in Home Remodeling and Repair. For more depart-mental information call (562)938-3091 or 938-3055.

CARPENTRY TECHNOLOGY

REQUIRED COURSES	UNITS
CARP 211 Carpentry 1	10
†CARP 212 Carpentry 2	10
†CARP 213 Carpentry 3	10
†CARP 214 Carpentry 4	10
TOTAL UNITS	**40**

COMPLETION CERTIFICATE

Carpenter Trainee Certificate

REQUIRED COURSES	UNITS
CARP 311 Carpentry Trade1	3
†CARP 312 Carpentry Trade 2	3
†CARP 313 Carpentry Trade 3	3
†CARP 314 Carpentry Trade 4	3
Subtotal Units	**12**

Select 3-4 Units from the Following Courses:

ARCHT 360M1 Basic AutoCAD for Architecture AND	1.5
ARCHT 360M2 Architecture Design–AutoCAD	1.5
CABMK 301 Millwork & Cabinet Making I	4
CARP 440 Blueprint Reading	3
ELECT 240 Electrical Code-Residential	3
HORT 223AD Landscape Construction	4
TOTAL UNITS	**15-16**

Home Remodeling & Repair Technician Certificate

REQUIRED COURSES	
CARP 415A Home Remodeling & Repair	2
†CARP 415B Home Remodeling & Repair	2
†CARP 415C Home Remodeling & Repair	2
†CARP 415D Home Remodeling & Repair	2
Subtotal Units	**8**

Select 3-4 Units from the Following Courses:

ARCHT 360M1 Basic AutoCAD for Architecture AND	1.5
ARCHT 360M2 Architecture Design–AutoCAD	1.5
CABMK 301 Millwork & Cabinet Making I	4
CARP 440 Blueprint Reading	3
ELECT 240 Electrical Code-Residential	3
HORT 223AD Landscape Construction	4
TOTAL UNITS	**11-12**

Pre-apprenticeship Training Certificate

REQUIRED COURSES	
CARP 250 Pre-apprenticeship Training	5.5
TOTAL UNITS	**5.5**

CHILD DEVELOPMENT
Associate in Arts

This field of concentration is designed for students who wish to transfer to a four-year degree program in Child Development or Early Childhood Education or Liberal

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 <u>THREE</u> (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 <u>certificate</u> 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 <u>Associate Degree</u> 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 <u>BOTH</u> CONCENTRATIONS   **UNITS**
•CBIS 6 Introduction to Information Systems (F,SP,S)	4
•¶CAOTT 233 Keyboarding/Typing (F, SP, S) OR 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

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	UNITS
CAOTC 35 Microsoft Office	3
TOTAL UNITS	**3**

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**

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**

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 under-stand 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 I-Net+, Java Programmer and Java Developer Certification exams. This Career Certificate will prepare students for an entry-level posi-

tion 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	UNITS
•CBIS 2 Help Desk Technician-Advanced MS Office (F, SP, S)	3
†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 40 MS Word, Excel & PowerPoint (F, SP)	3
†CBIS 200 Introduction to IBM Compatible Computers (F, SP)	3.5
†CBIS 41 Networking Fundamentals (F, SP)	3
†CBIS 206A Navigating the Internet (F, SP, S)	1
†CBIS 206B Web Design (F, SP,S)	1
†CBIS 260 Help Desk Concepts (SP)	1
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	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

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

†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
†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
 AND
†CBIS 234 AS/400 Computer Operations (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 program-
ming 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
†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

Computers (F, SP)	3.5
Subtotal Units	**12.5**

Choose one of the following network operating system tracks:

†CBIS 210A Novell Administrations & Upgrades (F, SP)	3
†CBIS 210B Novell Advanced Administration & Upgrades (SP)	1.5
†CBIS 215 Novell NetWare Installation & Configuration (SP)	1.5
OR	
†CBIS 225 Windows 2000 Professional (F)	2
†CBIS 226 Windows 2000 Server (F)	2
†CBIS 227 Windows 2000 Networking (SP)	2
†CBIS 228 Windows 2000 Directory Services (SP)	2
OR	
†CBIS 223 Unix/Linux Fundamentals (F, SP)	3
CBIS 220 i-Net+ Internet Technologies (F, SP)	3
OR	
CBIS 240A Unix Fundamentals	1
CBIS 240B Unix–Systems Administration I	2
CBIS 240C Unix–Systems Administration II	2
CBIS 220 i-Net+ Internet Technologies (F, SP)	3
Subtotal Units	**6-8**

TOTAL UNITS FOR TRACK 4	**18.5 – 20.5**

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
ELTC 250 Networking Wiring 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 IIII, WAN	3

COMPLETION CERTIFICATES

Java Web Programmer Certificate

REQUIRED COURSES	UNITS
†CBIS 14A Introduction to Java Programming (F,SP)	3.5
†CBIS 38 Database Concepts (SP)	2
CBIS 220 i-Net+ Internet Technologies (F, SP)	3
†CBIS 222A Advanced Java for Sun Certification I (F)	3
†CBIS 222B Advanced Java for Sun Certification II (SP)	3
TOTAL UNITS	**14.5**

Windows 2000 Network Administrator Certificate

REQUIRED COURSES	UNITS
CBIS 3A Operating Systems (F, SP, S)	3
†CBIS 41 Networking Fundamentals (F, SP)	3
†CBIS 225 Windows 2000 Professional (F)	2
CBIS 226 Windows 2000 Server(F)	2

†CBIS 227 Windows 2000 Networking (SP)	2
†CBIS 228 Windows 2000 Directory Services (SP)	2
TOTAL UNITS	**14**

Oracle Developer Certificate

REQUIRED COURSES	UNITS
†CBIS 36 System Design and Analysis (SP)	3.0
†CBIS 38 Database Concepts (F)	2
†CBIS 242 Programming: Introduction to Oracle (F)	3.5
†CBIS 243 Programming: Oracle Program Units (SP)	2.5
†CBIS 244 Develop Oracle Forms (F)	3.5
†CBIS 245 Develop Oracle Reports (SP)	2.5
TOTAL UNITS	**17.5**

Application Developer Certificate

REQUIRED COURSE	UNITS
CBIS 6 Introduction to Information Systems (F,SP,S)	4
†CBIS 2 Help Desk Technician–Advanced MS Office (F, SP, S)	3
†CBIS 40 Microsoft Word, Excel & PowerPoint–Post Advanced (F, SP)	3
†CBIS 208A Visual Basic Programming (F, SP)	4
†CBIS 71 Work Experience (F, SP, S)	1
TOTAL UNITS	**15**

CULINARY ARTS

Associate in Science/Career or Completion Certificate

Students will learn positions dealing with all phases of cooking for institutional, restaurant and hotel type food operations. It is appropriate for students currently employed to enhance their skills in food services. For more departmental information call (562)938-4502 or 938-4332.

REQUIRED COURSES	UNITS
F & N 250 Nutrition for Culinary Arts (F, SP)	2
FDSRV 20 Applied Food Services-Sanitation in Hotel & Restaurant Management (F, SP)	3
FDSRV 204 Introduction to Baking (F)	5
¶FDSRV 213A Food Preparation 1 (F, SP)	11.5
†FDSRV 213B Food Preparation 2 (F, SP)	11.5
†FDSRV 213C Food Preparation 3 (F, SP)	11.5
†FDSRV 270AD Work Experience Issues: Food Services (F, SP)	1
Subtotal Units	**45.5**

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
Subtotal Units	**3**
TOTAL UNITS	**48.5**

RECOMMENDED **but not required courses:**

†FDSRV 205 Baking and Pastry I (SP)	5
†FDSRV 206 Baking and Pastry II (INF)	5
FDSRV 207 Commercial Cake Decorating (INF)	5

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**

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 <u>Associate Degree</u> 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)	3
•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 209AB Speed/Accuracy Building for Typists (F, SP)	1:1
Subtotal Units	**3**
TOTAL UNITS	**20**

COMPLETION CERTIFICATES

Basic Data Entry Certificate

REQUIRED COURSES	
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 <u>one unit</u> from any of the following:	
•CAOTC 39AD Microsoft Word for Office, Levels 1-4 (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

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

†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
Subtotal 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 edu-cation and clinical practicum to qualified students. It is responsive to the diverse needs of the local medical com-munity. 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 profes-sional development and life-long 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
The following courses must be completed within five years prior to the first Fall Semester of the program:
*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

Subtotal Units	**15**

SECOND YEAR
REQUIRED COURSES   **UNITS**

Summer Session
† RT 40C Clinical Radiography & Film Critique	6
Subtotal Units	**6**

Fall Semester
*#General Ed. Course (see explanation in footnote)	3
†AH 222 Intravenous Therapy	1
†RT 15 Computer Applications in Radiology	3
†RT 40D Clinical Radiography & Film Critique	11
Subtotal Units	**18**

Spring Semester
*# General Ed. Course (see explanation in footnote)	3
†RT 14 Trends & Self-Assessment. in Rad. Tech.	3
†RT 40E Clinical Radiography & Film Critique	11
†RT 61 Fluoroscopy	2
Subtotal Units	**19**
TOTAL UNITS (IN PROGRAM)	**82.5**
TOTAL UNITS (INCLUDING PREREQUISITE COURSES)	**92.5**

RECOMMENDED courses but not required:
AH 210 Math for Meds	1
†RT 62 Mammography	3.5
LEARN 11 College Learning Skill Workshop	2

COMPLETION CERTIFICATES

Fluoroscopy Certificate
(Must be licensed CRT or in Second Year of Diagnostic Medical Imaging Program)

REQUIRED COURSE	**UNITS**
†RT 61 Fluoroscopy	2
TOTAL UNITS	**2**

Mammography Certificate
(Must be licensed CRT or in Second Year of Diagnostic Medical Imaging Program)

REQUIRED COURSE	**UNITS**
†RT 62 Mammography	3.5
TOTAL UNITS	**3.5**

DIESEL MECHANICS
Career Certificate and/or Associate in Science

Students prepare for entry-level jobs in the diesel mechanics/heavy equipment industry. For more departmental information call (562)938-3071 or 938-3054.

REQUIRED COURSES	**UNITS**

COMPLETE OPTION #1 OR OPTION #2

OPTION #1:
AMECH 424 Automotive Air Conditioning	3
DIESL 281 Diesel Two Cycle Engine	10
DIESL 282 Diesel Four Cycle Engine	10
†DIESL 283 Diesel Fuel Systems	10
†DIESL 284 Diesel Engine Chassis	10
WELD 400AD Welding (General)	2
TOTAL UNITS	**45**

OPTION #2:
AMECH 424 Automotive Air Conditioning	3

DIESL 289 Caterpillar 3406 & 3116 Engine	10
DIESL 290 Caterpillar Transmissions & Final Drive	10
DIESL 291 Caterpillar Hydraulics and Electrical	10
DIESL 292 Caterpillar Suspension and Under Carriage	10
WELD 452AD Welding (Acetylene Gas)	2
TOTAL UNITS	**45**

DIETETICS PROGRAM
Dietetic Service Supervisor/Dietetic Technician
Associate in Arts/Career Certificate

This program is designed to train students to be employed as Dietetic Service Supervisors and Dietetic Technicians who function as managers/supervisors and nutritional care specialists in the dietary departments of hospitals or other health care facilities.

DIETETIC SERVICE SUPERVISOR:
The Dietetic Service Supervisor is the food service director of a health care facility, is a member of the dietetic team, functioning under the supervision of a Registered Dietitian, Dietetic Technician or administrator. This program is the state approved program meeting federal OBRA and Title 22 requirements of the California State Licensing Regulation for food service supervisors in general acute care hospitals, acute psychiatric hospitals, skilled nursing facilities and intermediate care facilities. Upon successful completion of the program, the student is eligible to apply for a Dietetic Service Supervisor Certificate. The student may also receive the Associate in Arts degree if the graduation requirements are completed.

DIETETIC TECHNICIAN:
The Dietetic Technician is a nutritional counselor and is a member of the dietetic health care team, functioning under the direction of a Registered Dietitian. Approved by the American Dietetic Association, this program instructs the student in nutritional care, teaching techniques, nutrition principles, diet modification, nutritional counseling and food service management. Dietetic Technicians are trained to function as nutritional care specialists in the dietary departments of hospitals, clinics and other health care facilities. For the Dietetic Technician Program, students must fulfill the Associate Degree requirements (by completing the Career Certificates for both the Service Supervisor and the Technician programs and the graduation requirements). The students will then have earned both the Associate Degree and the TWO Commission on Dietetic Registration Career Certificates. The student is eligible to take the American Dietetic Association Registration Board Commission on Dietetic Registration Exam to become a Dietetic Technician: Registered. For further information, please call (562)938-4550 or 938-4193.

REQUIRED COURSES	**UNITS**

DIETETIC SERVICE SUPERVISOR PROGRAM
F & N 20 Nutrition & Life (F, SP, S)	3
¶F & N 21 Food Selection & Meal Preparation (F)	4

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: **UNITS**
†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**

A Career Certificate in this program is not available without also earning the Associate Degree.

RECOMMENDED **but not required courses:**
F & N 26 Nutrition for the Active Person   1
F & N 233A-D Special Topics in Health Care
    Dietetics   1:1:1:1
†F & N 235 Advanced Modified Diets (SP)   3
†F & N 240AC Clinical Field Experience II
    (F, SP) (2 semesters required)   2:2
F & N 250 Nutrition for Culinary Arts   2
F & N 253 Certified Food Handler Certification   1
F & N 255A-D Special Topics in Nutrition   1:1:1:1
F & N 256 Weight Control & Energy Balance   1
F & N 260AD Cultural Foods   1.5:1.5:1.5:1.5
F & N 261AD Modern Meals   1.5:1.5:1.5:1.5
F & N 262AD Meal Preparation for 1 & 2
    Persons   1.5:1.5:1.5:1.5
F & N 341AD Modern Meals   0.5:0.5:0.5:0.5

NOTE: 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
+†DRAFT 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
    OR
†*A more advanced level of Mathematics   3-5
Subtotal Units   **3-5**

Select *ONE* **of the following courses:**
†*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

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) OR	3
CDECE 47 Human Development D1 (F, SP)	3
CDECE 48 Child, Family and Community D2 (F, SP)	3
CDECE 54 Art for Children D3 (F, SP)	2
CDECE 55 Music for Children D3 (F, SP)	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	**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 61 Child in Multi-Cultural Classroom D3	3
º¶CDECE 70AD Work Experience Issues-Child Dev.	1
ºCDECE 71AD or ¶72AD or ¶73AD Work Experience (not to exceed 3 units)	1or 2 or 3
CDFDC 212 Family Child Care Management	3
CDLL 51A-D The Ecology of Early Childhood-The Whole Child	2
CDLL 52A-D Preschool Child Techniques D3	2
CDLL 91AD Special Studies	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) OR	3
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) OR	3
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 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 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	**12**

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 OR	1
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	2
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.

CDSED 70 Teaching Exceptional Students (SP) 3

TOTAL UNITS **6**

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

REQUIRED COURSES **UNITS**
ºCDECE 70AD Work Experience Issues 1
ºCDECE 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 **UNITS**
CDECE 40 Infant Development & Educaring D4 3
CDECE 41 Toddler Development & Educaring D4 3

TOTAL UNITS **6**

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

REQUIRED COURSES **UNITS**
ANTHR 2 Cultural Anthropology 3
   OR
HUMAN 7 American Pluralism and Identity 3
CDECE 61 Children in the Multicultural Classroom 3

TOTAL UNITS **6**

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

REQUIRED COURSES **UNITS**
CDECE 55 Music for Children 2
MUSIC 31 Music Fundamentals 3
One additional course in music 1

TOTAL UNITS **6**

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

REQUIRED COURSES **UNITS**
Choose SIX (6) units from the following:
CDSA 62 Creative Expression for School Age
   Children (F, SP) 2
CDSA 63 The School Age Child (F, SP) 3
CDSA 65 School Age Curriculum (F, SP) 3

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.

COURSES- DAY PROGRAM **UNITS**
   REQUIRED- **36.5**
   ELECTIVES **3.5**

COURSES-NIGHT PROGRAM
   REQUIRED- **31.5**

ELECTIVES **8.5**
TOTAL **40**

STUDENTS MAY FOLLOW EITHER:

DAY PROGRAM

FIRST SEMESTER **UNITS**
ELECT 200A General Industrial Electricity (F) 8
ELTC 250 Network Cabling Installation 1

SECOND SEMESTER
†ELECT 200B General Industrial Electricity (SP) 8
ELECT 242 Electrical Code–Grounding 1.5

THIRD SEMESTER
†ELECT 200C General Industrial Electricity (F) 8
ELECT 435A Electrical Motor Control 2

FOURTH SEMESTER
†ELECT 200D General Industrial Electricity (SP) 8
   AND
Complete remaining 3.5 units from electives listed after
4th Semester, Night Program. 3.5

TOTAL UNITS **40**

NIGHT PROGRAM

FIRST SEMESTER **UNITS**
ELECT 202 Electrical Mathematics (F, SP) 3
+ELECT 204 Fundamentals of D.C. Electricity,
   1st. semester (F, SP) 3
†+ELECT 210A Laboratory–Practices (F, SP) 1
Subtotal Units **7**
+Must enroll in ELECT 204 and 210A concurrently

SECOND SEMESTER
ELECT 240 Electrical Code–Residential (F, SP) 3
†+ELECT 209 Fundamentals of Motors and
   Generators, 2nd semester (F, SP) 3
†+ELECT 210B Laboratory–Practices (F, SP) 1
† ELECT 242 Electrical Code-Grounding (F, SP) 1.5
Subtotal Units **8.5**
+Must enroll in ELECT 209 and 210B concurrently

THIRD SEMESTER
†+ELECT 212 Fundamentals of A.C. Electricity,
   3rd semester (F) 3
†ELECT 245 Electrical Code-Commercial (F) 3
†+ELECT 210C Laboratory-Practices (F) 1
†ELECT 435A Electric Motor Control (F) 2
   AND
8.5 elective units can be completed during the 3rd and
4th semesters. See Fourth Semester below for list of
appropriate electives.
Subtotal Units **9**
+Must enroll in ELECT 212 and 210C concurrently.

FOURTH SEMESTER
†+ELECT 214 A.C. Principles and Practices (SP) 3
†ELECT 250 Electrical Code-Advanced (SP) 3
†+ELECT 210D Laboratory (SP) 1
Subtotal Units **7**
+Must enroll in ELECT 214 AND 210D concurrently.
   AND
Complete remaining 8.5 electives from courses listed
below.
†ELTC 41 Technical Applications of Minicomputers
   (INF) 2
ELTC 56A Robotics Technology 2

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 1/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 1, 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.

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 3 Argumentative and Critical Writing	3
†MATH 60 First Calculus Course	5
†MATH 70 Second Calculus Course	5
†MATH 80 Third Calculus Course	5
†MATH 84 Intro Differential Eqns. & Linear Algebra	4
†PHYS 3A Physics for Sci. & Engr.-Mechanics	5
†PHYS 3B Physics for Sci. & Engr.-E & M	4
†PHYS 3C Physics for Sci. & Engr.–Modern Physics	4
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)	2.5:2.5:2.5:2.5
†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	

(F, SP, S) 3
†ENGL 2 Intro. to Literature/Composition (F, SP, S) 3
ENGL 24 College Grammar (F, SP) 3
†¶ENGL 26 Creative Writing 1 (F, SP) 3
Subtotal Units **12**

Select *THREE* (3) units from the following:
†ENGL 27A Creative Writing 2: Poetry (F, SP) 3
†ENGL 27B Creative Writing 2: Fiction (F, SP) 3
†ENGL 27C Creative Writing 2: Biography,
  Autobiography (INF) 3
†ENGL 27D Creative Writing 2: Stage and Screen
  Writing (F, SP) 3
†ENGL 27E Creative Writing 2: The Novel (F, SP) 3
†ENGL 97AD Writers' Workshop (F, SP) 3:3:3:3
Subtotal Units **3**

**Select *SIX* (6) units from any of the courses listed
above in either the Language & Literature Sequence
or Creative Writing Sequence.**
Subtotal Units **6**

TOTAL UNITS **21**

RECOMMENDED courses but not required:
†ENGL 6AD Production of Literary Publications (INF) 3
ENGL 7 Editing a Literary Review 3 (INF) 3
JOURN 25 Free Lance/Feature Writing (F) 3

FAMILY & CONSUMER STUDIES
Associate in Arts/Career Certificate

Students are provided lower division transfer classes for
a bachelor's degree in Home Economics/Family and
Consumer Studies, and provide opportunities for devel-
oping skills and competencies for multiple roles of
home, family and career. Students are advised to check
with a four-year college/university for specific
requirements for transfer. This certificate will prepare
students for an entry-level position in any of the
generalized fields of Family and Consumer Studies
which include Child Development, Family and
Consumer Studies, Fashion Design, Fashion
Merchandising, Foods and Nutrition and Interior Design.
For more departmental informa-tion call (562)938-
4454**.**

REQUIRED COURSES **UNITS**
**For the Career Certificate or Associate Degree, com-
plete any EIGHTEEN (18) units from the list below:**
CDECE 47 Human Development (F, SP) 3
FACS 50 Consumer Awareness (F, SP) 3
FACS 64 Life Management (F, SP) 3
FACS 211AB College & Career Opportunities for
  Women (F, SP) 3
FD 9 Clothing Selection (F) 3
FD 10 Textile Fibers & Fabrics 3
FD 20 Introduction to Fashion Merchandising 3
F & N 20 Nutrition & Life (F, SP, S) 3
F & N 21 Food Selection & Meal Preparation (F) 4
F & N 252AD Cake Decorating & Sugar
  Cookery (F,SP) 1.5
ID 1 Fundamentals of Interior Design (F, SP) 3
ID 5 Interior Design Studio 1 (F, SP) 2

ID 10 Beginning Drafting: Interior Design (INF) 3
TOTAL UNITS **Select any 18**

FASHION DESIGN
Associate in Arts/Career or Completion Certificate

Students prepare for entry-level jobs in fashion design,
production and manufacturing. This program also pro-
vides partial lower-division preparation for the baccalau-
reate degree in Fashion Design. This Career Certificate
will prepare students for an entry-level position in the
apparel design and manufacturing industry. This Associ-
ate 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 ***19.5-
20.5 units*** from the following courses identified with a
(+). The ***Career Certificate*** requires ***54.5-55.5 units*** as
specified below. The ***Completion Certificate–Fashion
Design Update*** requires ***14-16 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 - $25/hour. Designer, Pro-
duction Manager, Pattern Drafter, Pattern Grader, Qual-
ity Control, Shipping Manager, Samplemaker, Textile
Designer and Manufacturers Representative.

ENTRY LEVEL CLASSES
REQUIRED COURSES **UNITS**
+COMIS 1A Using the Microcomputers
  (One semester) 1
  OR
CPAS 1B Using the MAC as a Tool for
  Learning (One semester) 1
+ ¶FD 3 Introduction to Careers in Design &
  Merchandising (F, SP) 2
FD 5 Introduction to Manufacturing for
  Design & Merchandising 1.5
+FD 9 Clothing Selection (F) 3
+FD 10 Textile Fibers and Fabrics (F, SP) 3
+FD 32 History of Fashion (SP) 3
FD 200 Fashion Prediction/Promotion:
  Critical Viewing (SP) 1
+FD 214AB Quick Sketch Croquis Drawing
  (One semester) 2
  OR
+FD 215AB Fashion Sketching I (F, SP) 2

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
FD 29AB Tailoring (F) 2
Subtotal Units **19.5-20.5**

INTERMEDIATE LEVEL CLASSES
FD 27AB Sewing Production (One semester) (F) 1.5
+FD 36A Pattern Drafting I: Basic Block (F) 1.5

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

+FD 36B Pattern Drafting II: Pattern Manipulation
(F) 1.5
FD 37A Pattern Draping I: Basic Sloper (SP) 1.5
FD 37B Pattern Draping II: Sloper
Manipulations (SP) 1.5
FD 38A Fashion Design I (F, SP) 3
FD 38B Fashion Design II (F, SP) 3
FD 41AD Fashion Show Production (One
semester) (SP) 2.5
FD 245AB Computer Applications in Fashion 1
(F, SP) 1.5

Select *ONE* of the following courses:
IBUS 1 Introduction to International Business 3
MKGT 40 Salesmanship 3
MGMT 80 Small Business Entrepreneurship 3
Subtotal Units **20.5**

ADVANCED LEVEL CLASSES
FD 38C Fashion Design III (F, SP) 3
FD 38D Fashion Design IV (F, SP) 3
FD 39A Pattern Grading (INF) 1
FD 40 Advanced & Production Pattern Drafting (INF) 1
FD 216AB Fashion Sketch Board/Portfolio
Presentation (One semester) (SP) 2

Select *Four* (4) units from this section:
°FD 70AD Work Experience Issues
(One semester) (F, SP) 1
°FD 72AD OR °FD 73AD Vocational Work
Experience (One semester) (F, SP) 2-3
FACS 364 Life Management 1
Subtotal Units **14**

TOTAL UNITS **54.5 55.5**

RECOMMENDED **but not required courses:**
ART 1 OR 2 Art & Civilization 3
ART 15 Beginning Drawing 3
FD 211AB Textile Design: Beading 1
FD 212AB Textile Design: Airbrush 1
FD 213AB Textile Design: Hand Painting 1
FD 231AB Fabric Crafts 0.5
FD 232AB Specialized Sewing Techniques:
Christmas Crafts 0.5
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 236AB Specialized Sewing Techniques:
Couture Finish 0.5
FD 242AD Introduction to Fashion Modeling 2
FD 246AB Computer Pattern Design/Manipulations 1
FD 258AD Swimwear 1
TART 43AD Costume Crafts 2

COMPLETION CERTIFICATE

Fashion Design Update Certificate
REQUIRED COURSES **UNITS**
°FD 70AD Work Experience Issues 1
°FD71AD, 72AD, 73AD Work Experience–Fashion
Design 1-3

Select any *12* units from the courses listed below:
COMIS 1A Using the Microcomputer

OR 1
CPAS 1B Using the MAC as a Tool for Learning 1
†FD 38C Fashion Design III (F, SP) 3
†FD 38D Fashion Design IV (F, SP) 3
FD 41AD Fashion Show Production (SP) 2.5
FD 200 Fashion Prediction/Promotion:
Critical Viewing (SP) 1
FD 214AB Quick Sketch Croquis Drawing 2
†FD 216AB Fashion Sketch Board/Portfolio
Presentation (SP) 2
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 pro-
vides partial lower-division preparation for the baccalau-
reate degree in Fashion Design. This Career Certificate
will prepare students for an entry-level position in the
apparel design and manufacturing industry. This Asso-
ciate Degree will prepare students for career advance-
ment once a certificate has been earned. Field of concen-
tration 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 **UNITS**
+COMIS 1A OR CPAS 1B Using the
Microcomputers (One semester) 1
+¶FD 3 Introduction to Careers in Design &
Merchandising (F, SP) 2
FD 5 Introduction to Manufacturing for Design &
Merchandising (F or SP) 1.5
+FD 9 Clothing Selection (F) 3
+FD 10 Textile Fibers and Fabrics (F, SP) 3
FD 200 Fashion Prediction/Promotion:
Critical Viewing (SP) 1
+FD 214AB Quick Sketch Croquis Drawing (Two
semesters) 2:2

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

FD 27AB Production Sewing (One semester) 2
Subtotal Units **18.5-19.5**

INTERMEDIATE LEVEL CLASSES

+FD 36A Pattern Drafting I: Basic Block (F) 1.5
†+FD 36B Pattern Drafting II: Pattern
  Manipulation (F) 1.5
FD 37A Pattern Draping I: Basic Sloper (SP) 1.5
†FD 37B Pattern Draping II: Sloper Manipulations
  (SP) 1.5
†FD 38A Fashion Design I (F, SP) 3
FD 245AB Computer Applications in Fashion 1
  (F, SP) 1.5
Subtotal Units **10.5**

ADVANCED LEVEL CLASSES
REQUIRED COURSES **UNITS**
†FD 38B Fashion Design II (F, SP) 3
†FD 38C Fashion Design III (F, SP) 3

Select *Four* (4) units from this section:
†FD 70AD Work Experience Issues (One semester)
  (F, SP) 1
†FD 72AD OR †FD 73AD Vocational Work
  Experience (One semester) (F, SP) 2-3
FD 216AB Fashion Sketchboard/Portfolio Presentation 2
FACS 364 Life Management 1
Subtotal Units **10**

TOTAL UNITS **39-40**

RECOMMENDED **but not required courses:**
ART 1 OR 2 Art & Civilization 3
ART 15AD Beginning Drawing 3
ART 31 Fundamentals of Art: Composition and Color 3
FD 211AB Textile Design: Beading 1
FD 213AB Textile Design: Hand Painting 1
FD 232AB Specialized Sewing Techniques:
  Christmas Crafts 0.5
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 236AB Specialized Sewing Techniques:
  Couture Finish 0.5
FD 246AB Computer Pattern Design/Manipulations 1
FD 258AD Swimwear 1

FASHION DESIGN
PATTERNMAKER
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. Salary will depend on ability, experience and skills. Starting salary range: $8/hour-$15/hour. Production Manager, Pattern Drafter, Pattern Grader, Quality Control and Samplemaker. This <u>Career Certificate</u> will prepare students for an entry-level position in the apparel design and manufacturing industry. The Career Certif-

icate requires 28–28.5 units as specified below. For more departmental information call (562)938-4192 or 938-4454.

REQUIRED COURSES **UNITS**
ENTRY LEVEL CLASSES
COMIS 1A or CPAS 1B Using the Microcomputers
  (One semester) 1
¶FD 3 Introduction to Careers in Design &
  Merchandising (F, SP) 2
 FD 5 Introduction to Manufacturing for Design &
  Merchandising (F, SP) 1.5
FD 10 Textile Fibers and Fabrics (F, SP) 3
FD 214AB Quick Sketch Croquis Drawing
  (Two semesters) 2

Select *ONE* 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 **11-11.5**

INTERMEDIATE LEVEL CLASSES
FD 36A Pattern Drafting I: Basic Block (F) 1.5
†FD 36B Pattern Drafting II: Pattern Manipulation
  (F) 1.5
FD 37A Pattern Draping I: Basic Sloper (SP) 1.5
†FD 37B Pattern Draping II: Sloper Manipulations
  (SP) 1.5
FD 27AB Production Sewing (one semester) 2
•FD 245AB Computer Applications in Fashion
  (Two semesters) (F, SP) 1.5:1.5
Subtotal Units **11**

ADVANCED LEVEL CLASSES
FD 39A Pattern Grading (INF) 1
FD 40AD Advanced & Production Pattern Drafting
  (INF) 1
†FD 70AD Work Experience Issues
  (One semester) (F, SP) 1
†FD 73AD Vocational Work Experience
  (One semester) (F, SP) 3
Subtotal Units **6**

TOTAL UNITS **28- 28.5**

RECOMMENDED **but not required courses: UNITS**
ART 1 OR 2 Art & Civilization 3
ART 15AD Beginning Drawing 3
ART 38A-D Fashion Design 3
FD 211AB Textile Design: Beading 1
FD 213AB Textile Design: Hand Painting 1
FD 232AB Specialized Sewing Techniques: Christmas
  Crafts 0.5
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 236AB Specialized Sewing Techniques:
  Couture Finish 0.5
FD 246AB Computer Pattern Design/Manipulations 1

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

FD 258AD Swimwear	1

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
FD 41AD Fashion Show Production (One semester) (SP)	2.5
MKTG 40 Salesmanship (F, 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	

(One semester) (F, SP) 1.5
MKTG 41 Advertising (F, SP) 3

Select ONE of the following:
¶IBUS 1 Introduction to International Business 3
IBUS 20 Export-Import Business Practices 3
¶MKTG 42 Retailing Principles & Practices 3
Subtotal Units **13.5 -14.5**

TOTAL UNITS **41.5 - 44.5**

RECOMMENDED **but not required courses:**
¶FD 24AB Beginning Sewing 1.5
FACS 50 Consumer Awareness 3
IBUS 52 International Marketing 3

FILM
Associate in Arts

Students learn an appreciation of film as a medium of mass communication and with experiences in film production. It prepares students for entry level employment in the film industry and provides partial lower division preparation for transfer to a baccalaureate degree in this field. The associate degree prepares students for entry level employment in the film industry. For more departmental information call (562)938-4563.

REQUIRED COURSES	UNITS
FILM 1 Introduction to Film (F, SP)	3
FILM 10AD Explorations in Film (1st & 2nd semester) (F, SP)	3
FILM 11AD Film Art and Artists (2nd semester) (SP)	3
†FILM 20AB Fundamentals of Film Production (F, SP)	2
FILM 60AD Special Projects in Film (F, SP)	1
*TART 1 Acting I-Introduction to Acting (F, SP, S) OR	
TART 32 Stage and Screen Writing (F, SP)	3

Select *ONE* of the following courses:
†FILM 21AB Intermediate Film Production (1st & 2nd semester) (SP) 2:2
FILM 35AD Film Production Workshop (1st semester) (INF) 4

TOTAL UNITS **19**

FINE ARTS
Associate in Arts

Students are provided with an introductory education in the fine arts. It also partially fulfills some of the lower division core for the Liberal Studies Bachelor's Degree and preparation for the Multiple Subjects Teaching Credential. This Associate Degree prepares student for transfer to a four-year college. For more departmental information call (562)938-4436.

REQUIRED COURSES
Select *EIGHTEEN* (18) units from *FIVE* of the EIGHT areas listed below:
ART, CART, DANCE, FILM, PHOT, MUSIC, R/TV, TART

FIRE SCIENCE
Career Certificate and/or Associate in Science

Students are educated and trained in the technical fields relating to fire and safety practices. This program also provides partial lower-division preparation for the baccalaureate degree in this field. This certificate will prepare students for entry to a fire academy and for an entry-level position in private and public fire-related occupa-tions. This Associate Degree will prepare students for entry to a fire academy and for career advancement for those already employed in a fire-related industry. For more departmental information call (562)938-4338.

REQUIRED COURSES	UNITS
CORE	
FIRE 1 Fire Protection Organization (F, SP)	3
FIRE 2 Fire Prevention Technology (formerly FIRE 57) (F, SP)	3
FIRE 3 Fire Protection Equipment and Systems (formerly FIRE 4) (F, SP)	3
FIRE 4 Building Construction for Fire Prevention (formerly FIRE 58) (F, SP)	3
FIRE 5 Fire Behavior & Combustion (F, SP)	3
Subtotal Units	**15**

Select NINE (9) units from the following courses:
FIRE 6A-B Fire Command 1A -1B (SP) 2:2
FIRE 7A-C Fire Prevention Officer 1A-1B-1C (S) 2:2:2
FIRE 10A-B Fire Instructor 1A-1B (F) 2:2
FIRE 16A-B Fire Investigator 1A-1B (F) 2:2
FIRE 26A Command 2A-Command Tactics at Major Fires 2
FIRE 26B Command 2B-Management of Major Hazardous Materials Incidents 2
FIRE 26C Command 2C-High Rise Tactics 2
FIRE 26D Command 2D-Planning for Large Scale Disaster 2
FIRE 26E Command 2E 2
FIRE 40 Fire Management 1 (SP) 2
FIRE 42A Fire Management 2A-Organizational Development and Human Relations 2
FIRE 42B Fire Management 2B-Fire Service Financial Management 2
FIRE 42D Fire Management 2D-Master Planning 2

FIRE 42E Fire Management 2E-Contemporary Issues and Concepts 2
FIRE 53 Fire Hydraulics (INF) 3
FIRE 54 Hazardous Materials 1 (F) 3
FIRE 57 Introduction to Fire Tactics and Strategy (formerly Fire 2) (F) 3
FIRE 58 Intro. to Fire Company Administration (SP) 3
FIRE 60 Fire Investigation 1 (SP) 3
FIRE 61 Rescue Practices (INF) 3
FIRE 62 Fire Apparatus and Equipment (F) 3
FIRE 64 Hazardous Materials 2 (SP) 3
FIRE 65 Fundamental of Fire Safety (INF) 3
FIRE 66 Introduction to Related Codes and Ordinances (formerly Fire 5) (INF) 3

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.
  AND Lab (One semester) (F,SP) 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

REQUIRED 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 OR	3
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 70AD Work Experience Issues 1
*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 <u>certificate</u> 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
°†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:
°†THRH 271AD Work Experience (F, SP) 1
°†THRH 272AD Work Experience (F, SP) 2
°†THRH 273AD Work Experience (F, SP) 3
Subtotal Units **36**

IN ADDITION students majoring in Catering Management are <u>required</u> 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: <u>Foreign Languages-Proficiency</u> emphasis with options in French, German and Spanish at intermediate or advanced level. <u>Foreign Languages-Regional</u> 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 <u>Language Certificate</u> (offered only in French, German and Spanish) verifies for a potential employer that the student can communicate (verbally and in writing) in a wide range of situations, for a variety of purposes at a designated level for effective communication in a business or related professional setting. This <u>Associate Degree</u> provides the same or greater level of competency as the certificate. The degree also offers an added dimension of cultural knowledge 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	3:3:3:3
Two semesters (4 units maximum) of Spoken French, German or Spanish (8AD) (F, SP, S)	2:2
TOTAL UNITS	**20**

CULTURE EMPHASES
With Options in European, Spanish American and
Pacific Rim

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), 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
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	3:3
*HIST 1AB History of Western (European) Civilization	3:3
Subtotal Units	**3**
TOTAL UNITS	**29**

In addition, students must pass a competency examination in French, German or 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 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.

HIST 8AB History of the Americas 3:3
Subtotal Units **3**
TOTAL UNITS **29**

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	UNITS

Select <u>10 units</u> in one language from Japanese or Chinese courses listed below:
¶Elementary Japanese 1 (or 1A + †1B), †2 (or †2A +
   †2B) (F, SP, S) 5:5
¶Elementary Chinese 1 (or 1A + †1B), †2 (or †2A +
   †2B) (F, SP, S) 5:5
Subtotal Units **10**

Select <u>SIX(6)</u> 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 <u>THREE(3)</u> units from:
†ENGL 32 Masterpieces/Asian Literature (In Engl) 3
*HIST 9A History of China 3
*HIST 9B History of Japan and Korea 3
Subtotal Units **3**
TOTAL UNITS **19**

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 <u>certificate</u> 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 <u>Associate Degree</u> 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.

REQUIRED COURSES	UNITS
HORT 11A-D Plant Identification (F, SP)	3:3:3:3
¶HORT 15A <u>OR</u> 15B Basic Horticulture (F, SP)	2
Subtotal Units	**14**

Select *SIX* (6) units from the following courses:
†HORT 270AD Work Experience Issues (F, SP) 1:1:1:1
†HORT 271AD Work Experience-Horticulture
   (F, SP) 1:1:1:1
†HORT 272AD Work Experience-Horticulture
   (F, SP) 2:2:2:2
†HORT 273AD Work Experience-Horticulture
   (F, SP) 3:3:3:3
Subtotal Units **6**

Select *TWENTY* (20) units from the following courses:
BIO 5 Plant Biology (F, SP) 4
BIO 18 Edible, Poisonous & Useful Plants (INF) 2
COMIS 1A or 1B Using the IBM OR Macintosh
   Microcomputer 1
HORT 10AB Greenhouse Operation/Mgmt SP) 4:4
HORT 15A or 15B Basic Horticulture (F, SP) *2
HORT 19AB Turf Management (SP) 4:4
HORT 21 Principles of Landscape Design (INF) 3
HORT 26AB Plant Propagation (F) 3:3
HORT 28AB Horticulture Equipment Operation (F) 3:3
HORT 30 Integrated Pest Management (INF) 3
HORT 202AB Principles of Pruning (F) 4:4
HORT 223AD Landscape Construction (F, SP) 4:4:4:4
HORT 227AB Interior Design/Installation &
   Maintenance (INF) 1.5:1.5
HORT 430A-B Landscape Maintenance 4
ID 286A-B Introduction to Floral Design (F, SP) 2:2
MGMT 80 Small Business Entrepreneurship 3
SPAN 1A Elementary Spanish 3
Subtotal Units **20**
TOTAL UNITS **40**

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 <u>cer-tificate</u> 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.

REQUIRED COURSES	UNITS
¶THRH 16 Intro. to Hospitality Management (INF)	3
THRFB 18 Introduction to Culinary Preparation (INF)	3

THRFB 19 Food & Beverage Purchasing, Planning & Control (INF) 3
*THRH 22 Front Office Operations (INF) 3
THRH 24 Hospitality Accounting (INF) 3
THRH 25 Hospitality Law (INF) 3
THRH 26 Hospitality Supervision (INF) 3
THRH 28 Convention Management & Meeting Planning (INF) 3
THRH 30 Hospitality Sales & Marketing (INF) 3
THRH 33 Housekeeping & Security Management (INF) 3
THRH 39 Hospitality Industry Computer Systems (INF) 3
†°THRH 270AD Work Experience Issues (F, SP) 1
Subtotal Units **34**

Complete a minimum of THREE (3) units from the following:
†°THRH 271AD Work Experience (F, SP) 1
†°THRH 272AD Work Experience (F, SP) 2
†°THRH 273AD Work Experience (F, SP) 3

TOTAL UNITS **37**

RECOMMENDED but not required courses:
THRFB 17 Intro. to Food & Beverage Management (INF)) 3
†°THRFB 27 Bar & Beverage Management (INF) 3
THRFB 32 Introduction to Catering Management (INF) 3
THRCA 20 Food Service Sanitation in Management (F, S) 3
THRH 29 Facilities Management (INF) 3
THRH 31 Resort Operations (INF) 3
CBIS 2 Help Desk Technician-Advanced MS Office (F, SP, S) 3
CBIS 40 Microsoft Word, Excel & Power Point (F, SP, S) 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

HUMAN SERVICES

Associate in Arts/Career Certificates

Student learn the skills and knowledge necessary to transfer to upper division programs in social work or human services and to be employed at the paraprofessional entry-level in social work and human services agencies. This certificate will prepare students for an entry-level position in the human services/social work field. This Associate Degree will prepare students for an entry-level position in the human services/social work field and for career advancement for those already employed in these occupations. For more departmental information call (562)938-4220.

REQUIRED COURSES **UNIT**

Complete *TEN-FOURTEEN* (10-14) units from any of the *CORE* courses below:
HS 1 Introduction to Social Work (F, SP) 3
†*HS 70AB Work Experience Issues (F, SP) 1:1
†*HS 71AB Work Experience-Human Services

(F, SP) 1:1
†*HS 72AB Work Experience-Human Services (F, SP) 2:2
HS 207 Development of Helping & Listening Skills (F, SP) 3
Subtotal Units **10-14**

Complete *an additional (*10 to 14) units from any of the following courses to bring the total to *24 UNITS*: (Emphasis on *ONE GROUP* is recommended)

GERONTOLOGY GROUP
F & N 20 Nutrition & Life 3
HLED 20 Aging, Death and Dying 2
HS 26 Introduction to Gerontology (S) 3
HS 226 Stress on Caregivers to Elderly (INF) 3
HS 228 Life Enhancement for Seniors 3

CRIMINAL JUSTICE GROUP
ADJUS 14 Juvenile Law and Procedures (F, SP) 3
ADJUS 20 Introduction to Corrections (F, SP) 3
HS 7 Introduction to Victimology (F, SP) 3
HS 40A Introduction to Addictive Behaviors (F, SP) 3
HS 40B Introduction to Addictive Behaviors (F, SP) 3
HS 241 Introduction to Chemical Dependency (F, SP) 3
HS 246 Physiological Effects of Alcohol and Drugs (F, SP) 3
SOCIO 12/ADJUS 12 Crime & Delinquency (F, SP) 3

GENERAL HUMAN SERVICES GROUP
ECON 1A MACRO Economics Analysis 3
HS 40A-B Introduction to Addictive Behaviors (F, SP) 3
HS 243 Case Management: Treatment and Aftercare (F, SP) 3
HS 245 Stress Management for the Helping Professional (F, SP) 3
HS 247 Individual, Group, and Family Counseling (F, SP) 3
HS 248 Law and Ethics (F, SP) 3
PUBAD 1 Introduction to Public Administration (F, SP) 3
SOCIO 2 Modern Social Problems 3
SP 20 Elements of Communication 3

FAMILY SERVICES GROUP
CDECE 47 Human Development / D1 3
FACS 50 Consumer Awareness 3
FACS 64 Life Management 3
SOCIO 40 Marriage & the Family 3
Subtotal Units **10-14**

TOTAL UNITS **24**

INTERIOR DESIGN

Associate in Arts/Career Certificate

Students prepare for employment in Interior Design, the Home Furnishings Industry and related fields. See the Interior Design: "Technical Skills Emphasis" guide for preparation in the area of drafting and computer aided design for the Home Furnishings Industry. For more departmental information call (562)938-4454 or 938-4195.

For the ASSOCIATE in ARTS Degree in INTERIOR DESIGN complete the following 27 units

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 *NEWS-PAPERS/MAGAZINES,* provides a basic program for students interested in careers requiring journalistic training, such as newspaper or Internet reporting, magazine or free-lance 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 depart-mental 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 80AD 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 35AD Photojournalism (2nd semester) (F)   3
JOURN 80AD Working on the Newspaper
   (2nd, 3rd and 4th semester) (F, SP, S)   3:3:3
JOURN 85AD Editor Training (1st and 2nd
   semester) (F, SP, S)   3:3
JOURN 70-73AD 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
•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 35AD Photo-journalism (1st semester) (F)   3
JOURN 80AD Working on the Newspaper (1st and
   2nd semester) (F, SP, S)   3:3

TOTAL UNITS   21

CERTIFICATE PROGRAM

Print, Public Relations, Publications
REQUIRED COURSES
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 70-73AD Work Experience/Work Experience
   Issues (F, SP)   2 - 4
JOURN 80AD Working on the Newspaper
   (1st semester) (F, SP, S)   3
JOURN 85AD Editor Training (1st semester) (F, SP, S) 3

TOTAL UNITS   20-22

RECOMMENDED **but not required courses:**
•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 posi-
tion 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 certifi-
cate 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 265 Computer Transcription (F, SP)
CAOTO 214A,B Filing A and Filing B (F, SP, S)   1:1
CAOTO 216 Proofreading Skills (F, SP)   1
CAOTO 223 Legal Procedures Litigation (SP)   3
CAOTO 224 Legal Procedures (F)   3
CAOTO 260 Business Telephone Procedures (F,SP,S) 1
CAOTO 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:
•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.

Select *ONE* (1) unit from the following:
•¶ 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)   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:

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

•CAOTC 34 Introduction to Computers and Applications
  (F, SP)   3
•CAOTC 35 Microsoft Office (F, SP)   3
Subtotal Units   **3**
TOTAL UNITS   **28**

COMPLETION CERTIFICATES

Basic Legal Office Procedures Certificate
REQUIRED COURSES   **UNITS**
CAOTO 223 Legal Procedures-Litigation   3
CAOTO 224 Legal Procedures   3
CAOTC 39A or 236A Word Processing-WordPerfect,
  Beginning   1
CAOTC 39B or 236B Word Processing-WordPerfect,
  Intermediate   1
CAOTC 265 Computer Transcription   2
TOTAL UNITS   **10**

Basic Office Skills Certificate
REQUIRED COURSES   **UNITS**
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**

COREL WordPerfect Certificate
REQUIRED COURSES   **UNITS**
CAOTC 236A Word Processing-WordPerfect,
  Beginning   1
CAOTC 236B Word Processing-WordPerfect,
  Intermediate   1
CAOTO 236C Word Processing-WordPerfect,
  Advanced   1
CAOTO 236D Word Processing, WordPerfect, Expert 1
TOTAL UNITS   **4**

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**

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:

I.+ONE course selected from either the ENGLISH COMPOSITION or the COMMUNICATION & ANALYTICAL THINKING section of the Associate Degree Graduation Requirements. This is <u>IN ADDITION</u> to the courses used to meet the general education requirement.

II.+ONE course selected from the NATURAL SCIENCES section of the Associate Degree Graduation Requirements. This is <u>IN ADDITION</u> to the course used to meet the general education requirement.

III.+ONE course selected from the HUMANITIES section of the Associate Degree Graduation Requirements. This is <u>IN ADDITION</u> to the course used to meet the general education requirement.

IV.+ONE course selected from the SOCIAL SCIENCE section of the Associate Degree Graduation Require-ments. This is <u>IN ADDITION</u> to the course used to meet the general education requirement.

V.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 <u>IN ADDITION</u> 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**   **UNITS**
MACHT 50A Machine Tool Operation and Practices   3
†MACHT 50B Machine Tool Operation and Practices 3
¶• COMIS 1A Using the IBM   1
  OR
¶• CPAS 1B Using the MAC as a Tool for Learning   1
DRAFT 203AD Mechanical Drawing   3
  OR
¶†DRAFT 51A Industrial Drafting I   3
ELTC 225 Algebra & Trigonometry for Technicians
  OR
A more advanced or transferable math course.   3:4
  (Trigonometry is recommended.)

Complete one (1) unit from the following:
WELD 453AD Welding (Acetylene Gas)   1:1:1:1
Subtotal Units   **14-15**

LEVEL 2 - REQUIRED COURSES
†MACHT 202 Machine Shop 2   10
†MACHT 203 Machine Shop 3   10

†MACHT 204 Machine Shop 4   10
Subtotal Units   **30**

TOTAL UNITS   **44-45**

NOTE: If 300 numbered versions of classes exist, they may be used toward the total units required.

RECOMMENDED but not required Courses:
†DRAFT 60 Geometric Dimensioning & Tolerancing   3
†•TEC 60 Computer Aided Design and Drafting
   (CADD)   3

MACHINE TOOL TECHNOLOGY

Career Certificate and/or Associate in Science

Students prepare for entry-level jobs as machinists in the machine tool area. For more departmental information call (562)938-3073 or 938-3054.

REQUIRED COURSES	UNITS
MACHT 201 Machine Shop 1	10
†MACHT 202 Machine Shop 2	10
†MACHT 203 Machine Shop 3	10
†MACHT 204 Machine Shop 4	10
MACHT 250 CNC Manual Programming	5
TOTAL UNITS	**45**

RECOMMENDED **but not required:**
WELD 400AD Welding (General)   2

MARKETING

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 marketing. Students can enhance their skills in strategic and tactical market planning 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
MKTG 40 Salesmanship (F, SP)	3
MKTG 41 Advertising (F, SP)	3
MKTG 47 Essentials of Marketing (F, SP)	3
IBUS 52 International Marketing (F)	3
Subtotal units	**12**

Select *TWO (2)* from the following:
IBUS 1 Introduction to International Business (F, SP)   3
MGMT 49 A Introduction to Management (F, SP, S)   3
MGMT 49 B Introduction to Management (F, SP)   3
MGMT 80 Small Business Entrepreneurship (F, SP, S)3
•MKTG 270AD Work Experience Issues (F, SP)   1
   AND
•MKTG 273AD Work Experience (F, SP)   3
Subtotal Units   **6-7**

Select *TWO (2)* from the following:
†ACCTG 1A-B Principles of Accounting (F, SP, S)   4:4
ACCTG 18 Credit & Financial Statement Analysis (SP)3
¶ACCTG 200A Introduction to Accounting   3

ºCAOTC 35 Microsoft Office (F, SP)   3
CAOTO 15 Business Communication (F, SP)   3
ºCBIS 6 Introduction to Information Systems (F, SP, S)4
*ECON 1A-1B Macro & Micro Economic Analysis   3:3
GBUS 5 Introduction to Business (F, SP, S)   3
LAW 18A Business Law (F, SP, S)   3
Subtotal Units   **6-8**

TOTAL UNITS   **24-27**

MATHEMATICS

Associate in Science

This field of concentration is designed to recognize competency in mathematics at a postsecondary level. It partially fulfills the requirements for transfer with junior standing for students majoring in mathematics and related fields having significant mathematical content. This <u>Associate Degree</u> will facilitate transfer for a four-year degree. For more departmental information call (562)938-4607.

REQUIRED COURSES	UNITS
†* ENGL 1 Reading and Composition	3
†*ENGL 3 Argumentative and Critical Writing	3
†MATH 60 First Calculus Course	5
†MATH 70 Second Calculus Course	5
†MATH 80 Third Calculus Course	5
†MATH 84 Introduction Differential Eqns. and Linear Alg. (SP)	4
†PHYS 3A Physics for Sci. & Engr. - Mechanics	5
Subtotal Units	**30**

Select *TWO* of the following:
†BIO 1A Biology for Science Majors   5
†BIO 1B Biology for Science Majors   5
†CHEM 1A General Chemistry   5
†CHEM 1B General Chemistry   5
ECON 1A Macro Economic Analysis   3
ECON 1B Micro Economic Analysis   3
GEOL 2 General Geology, Physical   3
GEOL 3 Historical Geology   3
GEOL 5 Environmental Geology   3
†PHYS 3B Physics for Sci. & Engr. – E & M   4
†PHYS 3C Physics for Sci. & Engr. – Modern Physics 4
Subtotal Units   **6-10**

Select *ONE* of the following:
† CBIS 12 Computer Programming/C++   3
†ENGR 54 Computer Methods /C++   3
Subtotal Units   **3**

TOTAL UNITS   **39-43**

NOTE: A student must meet all prerequisites that make one eligible for a sequence of courses. Prerequisites are evaluated in the Admissions Office.

MECHANICAL MAINTENANCE TECHNOLOGY

Career Certificate/Associate in Science

This program gives students the comprehensive skills to maintain, diagnose and repair dockside ground mechan-

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	UNITS
DIESL 293AD General Engine	4
DIESL 391A Hydraulics	3
DIESL 492 Air & Hydraulic Brakes	3
ELECT 202 Electrical Mathematics	3
*ELECT 204° Fundamentals of DC Electricity	3
*ELECT 310A° Laboratory Practices (DC)	1

° Must enroll in ELECT 204 and ELECT 310A concurrently.

*ELECT 209° Fundamentals of Motors/Generators	3
*ELECT 310B° Laboratory Practices (AC)	1

° Must enroll in ELECT 209 and ELECT 310B concurrently.

AC/R 450A Transport Refrigeration	5
†AC/R 450B Advanced Transport Refrigeration	5
WELD 400AD General Welding	2
WELD 450AD Welding (Arc)	2
WELD 454AB Welding (Inert Gas - MIG & TIG)	2
Subtotal Units	**37**

ELECTIVES
Select a minimum of *THREE (3) Units from the following:*

†ELECT 212° Fundamentals of AC Electricity (3rd Semester)	3
ELECT 310C° Laboratory Practices (AC)	1

°Must enroll in ELECT 212 and ELECT 310C concurrently.

AC/R 400A Uniform Mechanical Code I	3
SHMET 220A Surface Development & Fabrication	5
WELD 452AD Welding (Acetylene Gas)	2
+WELD 454AB Welding (Inert Gas)	2
Subtotal Units	**3**
TOTAL UNITS	**40**

RECOMMENDED COURSES
Recommended for Computer Proficiency:
COMIS 1A, Using the IBM Microcomputer OR †ELTC 41, Technical Applications of Minicomputers.

Recommended **for Communication & Analytical Thinking:**
†ELTC 225, Algebra & Trigonometry for Technicians OR †MATH 110, First Course in Algebra OR a more advanced level of Mathematics may be substituted.

Recommended **for Natural Sciences:**
ENVRS 1, Energy for the Future OR †CHEM 2, Elementary Chemistry.

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, transcribing and insurance billing.

FIRST SEMESTER

+*BIO 60 Human Biology 1	4
+AH 60 Medical Terminology	3
†¶MA 270 Introduction to Medical Assisting	3
+Administrative Option - See Options	3

SECOND SEMESTER

+AH 276 Health Care Law	1
@†MA 284 Medical Assisting Specialized Practicum	2
@†MA 288 Practicum Seminar	1
+MA 290 Medical Insurance Billing	3
+Administrative Option - See Options	3
TOTAL UNITS	**23**

ADMINISTRATIVE OPTIONS
CHOOSE *ONE* OF THE FOLLOWING *OPTIONS*
OPTION ONE:

+ACCTG 200A Introduction to Accounting	3
•+Computer Class Any class which satisfies computer proficiency for graduation. FOR UPDATED LISTING SEE GENERAL COURSE PATTERN GUIDE.	1
•+CAOTC 39A,B Microsoft Word for Office, Levels 1-2	1:1

OPTION TWO

•+CAOTC 47A Access for Office Applications, Beg.	3
•+CAOTC 47B Access for Office Applications, Inter.	3

OPTION THREE

+ACCTG 200A Introduction to Accounting	3
+ AH 206A Medical Transcription	3

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

•+Computer Class Any class which satisfies computer proficiency for graduation. FOR UPDATED LISTING SEE GENERAL COURSE PATTERN GUIDE.	1
+*BIO 60 Human Biology 1	4

+AH 60 Medical Terminology	3
†¶MA 270 Introduction to Medical Assisting	3
†MA 280 Health Care Clinical Procedures	3

SECOND SEMESTER

+AH 276 Health Care Law	1
†MA 282 Advanced Health Care Clinical Procedures	3
@†MA 284A or B Medical Assisting Specialized Practicum	2
@†MA 288 Practicum Seminar	1
+MA 290 Medical Insurance Billing	3
TOTAL UNITS	**24**

COMBINED CERTIFICATE PROGRAM
FIRST SEMESTER

+*BIO 60 Human Biology 1	4
+AH 60 Medical Terminology	3
†¶MA 270 Introduction to Medical Assisting	3
†MA 280 Health Care Clinical Procedures	3
+Administrative Option-See Options	3

SECOND SEMESTER

+AH 276 Health Care Law	1
†MA 282 Advanced Health Care Clinical Procedures	3
@†MA 286 Clinical Practicum	4
@†MA 288 Practicum Seminar	1
+MA 290 Medical Insurance Billing	3
+Administrative Option-See Options	3
TOTAL UNITS	**31**

ADMINISTRATIVE OPTIONS
CHOOSE *ONE* **OF THE FOLLOWING** *OPTIONS*
OPTION ONE:

+ACCTG 200A Introduction to Accounting	3
•+CAOTC 39A,B Microsoft Word for Office	1:1
•+Computer Class Any class which satisfies computer proficiency for graduation. FOR UPDATED LISTING SEE GENERAL COURSE PATTERN GUIDE.	1

OPTION TWO

•+CAOTC 47A Access for Office Applications, Beg.	3
•+CAOTC 47B Access for Office Applications, Inter.	3

OPTION THREE

+ACCTG 200A Introduction to Accounting	3
+ AH 206A Medical Transcription	3

RECOMMENDED COURSES FOR CLINICAL/COMBINED CERTIFICATE

AH 210 Math for Meds	1
AH 220 Phlebotomy	1
LEARN 11 College Learning Skills Workshop	2

COMPLETION CERTIFICATES

Emergency Medical Technician Certificate

REQUIRED COURSES	UNITS
†EMT 251 Emergency Medical Technician	3
†EMT 251L Emergency Medical Technician Laboratory	1.5
TOTAL UNITS	**4.5**

Health Unit Coordinator Certificate

REQUIRED COURSES	UNITS
AH 60 Medical Terminology	3
†AH 280 Health Unit Secretary	2
†AH 280L Health Unit Secretary Laboratory	1

TOTAL UNITS	**6**

Medical Insurance Billing Certificate

REQUIRED COURSES	UNITS
AH 60 Medical Terminology	3
MA 290 Medical Insurance Billing	3
TOTAL UNITS	**6**

Phlebotomy Certificate
(Must be enrolled in nursing and/or health technologies program or licensure as a health care practitioner)

REQUIRED COURSE	UNITS
AH 220 Phlebotomy	1
TOTAL UNITS	**1**

+These courses may be taken before admission to the program.
@ C.P.R. Certification is required

MEDICAL TRANSCRIPTION

Career Certificate and/or Associate in Arts

Students prepare for an entry-level medical transcription position. Emphasis will be on the transcription of a wide variety of medical communications from machine dictation and an introduction to the terminology encountered in various medical specialties. A review of the language arts skills of punctuation, spelling, editing, proofreading and vocabulary is stressed. The certificate will prepare students for an entry-level position in a variety of business settings and will serve as a foundation for specialization. The degree will prepare students for career advancement once a certificate has been earned. For more department information call (562)938-3033.

REQUIRED COURSES	UNITS
†*BIO 60 Human Biology 1	4
AH 60 Medical Terminology	3
AH 206A Beginning Medical Transcription (F, SP)	3
AH 206B Advanced Medical Transcription (F, SP)	3
•CAOTC 265 Computer Transcription (F, SP)	2
CAOTO 216 Proofreading Skills (F, SP)	1
CAOTO 261 Business English (F, SP, S)	3
Subtotal Units	**19**

Select FOUR (4) units from one of the following groups:

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)	1:1:1:1
Subtotal Units	**4**

Select *ONE* **of the following courses:**

•CAOTT 201 Intermediate Typing/Keyboarding (F, SP)	2
•CAOTT 202 Advanced Typing/Keyboarding (F, SP)	2
CAOTT 209AB Speed/Accuracy Building for Typists (F, SP)	1:1
Subtotal Units	**0-2***

Select *THREE* **(3) units from the following:**

•CAOTC 31A-B Microsoft Windows Operating System (Beginning, Advanced) (F, SP, S)	1:1
•CAOTC 34 Introduction to Computers and Applications (F, SP)	3
•CAOTC 35 Microsoft Office (F, SP)	3
•#CAOTC 39A-D Microsoft Word for Office	

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

Levels 1-4, (F, SP)   1:1:1:1
•# CAOTC 236A-D Word Processing–WordPerfect
  (Levels 1–4) (F, SP)   1:1:1:1
CAOTO 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 39D Microsoft Word for the Office, Expert   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
  AND
CAOTO 216 Proofreading Skills   1
CAOTC 265 Computer Transcription   2
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 depart-mental 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

MUSIC 30A Music History/Antiquity to 1800 (SP)
  OR
MUSIC 30B Music History and Literature   3
†MUSIC 92AD OR 17AD Applied Music (4th
  semester)   1
**Performance Organization   1
Semester Total   **10**
TOTAL UNITS   **35**

COMMERCIAL MUSIC
Composer/Arranger
Associate in Arts/Career Certificate

Students prepare to compete in the world of commercial music production in the specific area of arranging and work in the high-tech studio environment. This certificate will prepare students for an entry-level position in a variety of music performance, composition and recording opportunities, i.e., production arranger, live performance composer/arranger, film/video music scoring, jingle writer, songwriter, string/wind arranger. 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 composition/technology program. For more departmental information call (562)938-4309.

REQUIRED CORE COURSES	UNITS
•MUSIC 71AD Introduction to Music Technology	2
MUSIC 75A–B The Music Business	1:1
†MUSIC 86AD Record Production (Fundamentals)	2
•MUSIC 93AD Record Production (Using MIDI)	2
MUSIC 94 Beginning recording Techniques	2
MUSIC 98AD Synth/Drum Mach/Sequencer Programming	2
Subtotal Units	**12**

REQUIRED COURSES FOR SPECIALITY

MUSIC 50AD Performance Showcase/Ensemble	1:1
MUSIC 60AD ProTools (Digital Audio Recording/Edit)	2
MUSIC 72AD Commercial Improvisation/Arranging/ Scoring	2
MUSIC 81AD Commercial Keyboard	2:2
MUSIC 83AD Film/Video Music/Scoring	1:1
MUSIC 84AD Commercial Songwriting	2:2
MUSIC 90AD Commercial Theory	2:2
Subtotal Units	**20**

ELECTIVES (Select SIX (6) units from the following):

MUSIC 59AD Digital Recording & Sampling Tech.	2
MUSIC 62AD/63AD Guitar/Bass (Beg./Int.)	1:1:1:1
MUSIC 72AD Com Improvisation/Arranging/ Scoring	2:2:2
MUSIC 80AD Commercial Music Performance	1:1
MUSIC 87AD Vocal Jazz Trios, Quintets, Octets	1
MUSIC 94 Beginning Recording Techniques	2
†MUSIC 96AD Advanced Recording Techniques	2
Subtotal Units	**6**
TOTAL UNITS	**38**

COMMERCIAL MUSIC
Professional Instrumentalist
Associate in Arts/Career Certificate

Students prepare for live instrumental and studio performance and interactions with state-of-the-art equipment, i.e., work as a commercial professional musician in all live and recording venues (small groups, big bands studio, casuals, TV and movies). This certificate will prepare students for an entry-level position in a variety of music performance and recording opportunities. 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	UNITS
•MUSIC 71AD Introduction to Music Technology	2
MUSIC 75A-B The Music Business	1:1
MUSIC 86AD Record Production (Fundamentals)	2
•MUSIC 93AD Record Production (Using MIDI)	2
MUSIC 94 Beginning Recording Techniques	2
MUSIC 98AD Synthe./Drum Mach/Sequencer Programming	2
Subtotal Units	**12**

REQUIRED COURSES FOR SPECIALITY

MUSIC 50AD Performance Showcase/Ensemble Workshop	1:1:1:1
MUSIC 72AD Commercial improvisation/ Arranging/Scoring	2:2
MUSIC 80AD "City" Jazz Big Band	1:1:1:1
MUSIC 81AD Commercial Keyboard	2:2
MUSIC 84AD Commercial Songwriting	2:2
MUSIC 85AD Commercial Small Jazz Ensemble	1:1:1:1
Subtotal Units	**24**

ELECTIVES (Select TWO (2) units from the following):

MUSIC 59AD Digital Recording & Sampling Tech.	2
¶MUSIC 62AD Guitar/Bass (Beginning)	1
MUSIC 63AD Guitar/Bass (Intermediate)	1
MUSIC 79AD Guitar/Bass (Adv.)	1
MUSIC 83AD Film/Video Music Scoring	1:1
MUSIC 97AD Tools of the Trade	2
Subtotal Units	**2**
TOTAL UNITS	**38**

COMMERCIAL MUSIC
Professional Technology
Associate in Arts/Career Certificate

Students prepare to compete in the world of commercial music and/or the entertainment industry. This certificate will prepare students for an entry-level position in a variety of music performance, film/video post-production, computer synthesis technician and corporate tech support. 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

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

music composition/technology program. For more department information call (562)938-4309.

REQUIRED CORE COURSES   **UNITS**
•MUSIC 71AD Introduction to Music Technology   2
MUSIC 75A-B The Music Business   1:1
†MUSIC 86AD Record Production (Fundamentals)   2
•MUSIC 93AD Record Production (Using MIDI)   2
MUSIC 94 Beginning Recording Techniques   2
MUSIC 98AD Synth/Drum Mach/Sequencer
    Programming   2
Subtotal Units   **12**

REQUIRED COURSES FOR SPECIALITY
MUSIC 59AD Digital Recording & Sampling Tech   2:2
MUSIC 60AD ProTools (Digital Audio
    Recording/Edit)   2
MUSIC 81AD Commercial Keyboard   2
MUSIC 83AD Film/Video Music Scoring   1
MUSIC 84AD Commercial Songwriting   2:2
MUSIC 88AD Small Studio Lab   1
MUSIC 90AD Commercial Theory   2:2
MUSIC 97AD Tools of the Trade   2
Subtotal Units   **20**

ELECTIVES **(Select *SIX (6) units* from the following):**
MUSIC 59AD Digital Recording & Sampling Tech   2
MUSIC 60AD ProTools (Digital Audio
    Recording/Edit)   2
MUSIC 62AD/63AD Guitar/Bass (Beg./Int.)   1:1:1:1
MUSIC 68 Basic Audio Theory   2
MUSIC 81AD Commercial Keyboard   2
MUSIC 83AD Film/Video Music Scoring
•MUSIC 93AD Record Production (Using MIDI)   2
†MUSIC 95 Intermediate Recording Techniques   2
†MUSIC 96AD 16-Track Recording Techniques   2:2
Subtotal Units   **6**
TOTAL UNITS   **38**

COMMERCIAL MUSIC

Professional Vocalist
Associate in Arts/Career Certificate

Students prepare for vocal performance in recording and live performance situations (clubs, churches, theaters, film and television). This certificate will prepare students for an entry-level position in a variety of commercial music, professional vocalist opportunities. This Associate Degree will prepare students for career advancement and 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   **UNITS**
•MUSIC 71AD Introduction to Music Technology   2
MUSIC 75A-B The Music Business   1:1
MUSIC 86AD Record Production (Fundamentals)   2
•MUSIC 93AD Record Production (Using MIDI)   2
MUSIC 94 Beginning Recording Techniques   2
MUSIC 98AD Synth/Drum Mach/Sequencer
    Programming   2
Subtotal Units   **12**

REQUIRED COURSES FOR SPECIALITY
MUSIC 7AB Elementary Voice   2
MUSIC 74AD Commercial Solo Voice   2:2:2:2

#MUSIC 78AD Studio Singers
    OR
MUSIC 44AD The Evening Jazz Choir   1:1
MUSIC 81AD Commercial Keyboard   2
MUSIC 84AD Commercial Songwriting   2
†MUSIC 90AD Commercial Theory   2
MUSIC 91AD Special Studies   2
Subtotal Units   **20**

ELECTIVES-**Select *SIX (6) units* from the following:**
MUSIC 7AB Elementary Voice   2
†MUSIC 42AD Professional Vocal/Solo Group   1:1:1:1
MUSIC 59AD Digital Recording & Sampling
    Techniques   2
#MUSIC 71AD Introduction to Music Technology   2:2:2
#MUSIC 78AD Studio Singers
    OR
MUSIC 44AD The Evening Jazz Choir   1:1:1:1
#MUSIC 81AD Commercial Keyboard   2:2:2
#MUSIC 84AD Commercial Songwriting   2:2:2
†MUSIC 86AD Record Production (Fundamentals)   2:2:2
MUSIC 87AD Vocal Jazz Trios, Quintets,
    Octettes   1:1:1:1
MUSIC 88AD Small Studio Lab   1:1:1:1
#MUSIC 90AD Commercial Theory   2:2:2
•MUSIC 93AD Record Production (Using MIDI)   2:2:2
†MUSIC 95 Intermediate Recording Techniques   2
†MUSIC 96AD Advanced Recording Techniques   2:2:2:2
  MUSIC 98AD Synth./Drum Machine/Sequencer
    Programming   2:2:2
Subtotal Units   **6**
TOTAL UNITS   **38**

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 multi-media. 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   **UNITS**
•MUSIC 71AD Introduction to Music Technology   2
MUSIC 75A-B The Music Business   1:1
†MUSIC 86AD Record Production (Fundamentals)   2
•MUSIC 93AD Record Production (Using MIDI)   2
MUSIC 94 Beginning Recording Techniques   2
MUSIC 98AD Synth/Drum Mach/Sequencer
    Programming   2
Subtotal Units   **12**

REQUIRED COURSES FOR SPECIALITY
MUSIC 61AD Music Mastering   1
†MUSIC 65AD Advanced-Pro Recording Techniques   2
†MUSIC 66AD Studio Mixdown Techniques   2:2
MUSIC 68 Basic Audio Theory   2

MUSIC 69AD Analysis of Music Video	2
†MUSIC 95 Intermediate Recording Techniques	2
†MUSIC 96AD Advanced Recording Techniques	2:2
MUSIC 270AD Work Experience Issues – Music	1
MUSIC 271AD Work Experience – Music	1
Subtotal Units	**19**

ELECTIVES - Select *FIVE (5) units* **from the following):**

MUSIC 61AD Music Mastering	1:1:1
†MUSIC 65AD Advanced-Pro Recording Techniques	2:2:2
†MUSIC 66AD Studio Mixdown Techniques	2:2
MUSIC 69AD Analysis of Music Video	2:2:2
†MUSIC 82AD Sound Reinforcement	2:2:2
MUSIC 83AD Film/Video Music/Scoring	1:1:1
MUSIC 84AD Commercial Songwriting	2
†MUSIC 86AD Record Production (Fundamentals)	2:2
MUSIC 88AD Small Studio Lab	1:1:1:1
•MUSIC 93AD Record Production (Using MIDI)	2:2
†MUSIC 96AD Advanced Recording Techniques	2:2:2
MUSIC 97AD Tools of the Trade	2:2:2
MUSIC 98AD Synth/Drum Mach/Sequencer Programming	2:2
MUSIC 270 Work Experience Issues - Music	1:1:1
MUSIC 272 Work Experience	2
MUSIC 273 Work Experience	3
Subtotal Units	**5**
TOTAL UNITS	**36**

COMMERCIAL MUSIC
Recording Engineer
Associate in Arts/Career Certificate

Students prepare for music production in the studio environment using state-of-the-art equipment. This <u>certificate</u> will prepare students for an entry-level position as an audio engineer in fields such as: recording studio, live sound, mastering, music video, foley, television, film, theater and multi-media. This <u>Associate Degree</u> will prepare students for career advancement once a certifi-cate 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	**UNITS**
•MUSIC 71AD Introduction to Music Technology	2
MUSIC 75A–B The Music Business	1:1
†MUSIC 86AD Record Production (Fundamentals)	2
•MUSIC 93AD Record Production (Using MIDI)	2
MUSIC 94 Beginning Recording Techniques	2
MUSIC 98AD Synth/Drum Mach/Sequencer Programming	2
Subtotal Units	**12**

REQUIRED COURSES FOR SPECIALITY	
MUSIC 61AD Music Mastering	1
†MUSIC 65AD Advanced–Pro Recording Techniques	2:2
†MUSIC 66AD Studio Mixdown Techniques	2:2
MUSIC 68 Basic Audio Theory	2

MUSIC 70AD Studio Maintenance	2:2
†MUSIC 82AD Sound Reinforcement	2:2
†MUSIC 95 Intermediate Recording Techniques	2
†MUSIC 96AD Advanced Recording Techniques	2:2
MUSIC 270AD Work Experience Issues–Music	1
MUSIC 271AD Work Experience–Music	1
Subtotal Units	**27**

ELECTIVES - Select *ONE (1) unit* **from the following:**

MUSIC 59AD Digital Recording & Sampling Techniques	2:2:2:2
MUSIC 61AD Music Mastering	1:1:1
†MUSIC 65AD Advanced–Pro Recording Techniques	2:2
†MUSIC 66AD Studio Mixdown Techniques	2:2
MUSIC 70AD Studio Maintenance	2
MUSIC 71AD Introduction to Music Technology	2:2
†MUSIC 82AD Sound Reinforcement	2:2
MUSIC 83AD Film/Video Music/Scoring	1:1
MUSIC 84AD Commercial Songwriting	2:2:2
†MUSIC 86AD Record Production (Fundamentals)	2:2:2
MUSIC 88AD Small Studio Lab	1:1:1:1
•MUSIC 93AD Record Production (Using MIDI)	2:2:2
†MUSIC 96AD Advanced Recording Techniques	2:2
¶MUSIC 97AD Tools of the Trade	2:2:2:2
MUSIC 98AD Synth/Drum Mach/Sequencer Programming	2:2:2
Subtotal Units	**1**
TOTAL UNITS	**40**

COMMERCIAL MUSIC
Songwriter
Associate in Arts/Career Certificate

Students prepare to compete in the world of commercial music production specifically for areas of songwriting, composition and work in the high-tech studio environment. This certificate will prepare students for an entry-level position in a variety of music performance, composition and recording opportunities, i.e., staff song-writer, jingle writer, movie music, vocal arranger, producer, STAR. 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 composition/technology program. For more departmental information call (562)938-4309.

REQUIRED CORE COURSES	**UNITS**
•MUSIC 71AD Introduction to Music Technology	2
MUSIC 75A–B The Music Business	1:1
MUSIC 86AD Record Production (Fundamentals)	2
•MUSIC 93AD Record Production (Using MIDI)	2
MUSIC 94 Beginning Recording Techniques	2
MUSIC 98AD Synthe./Drum Mach/Sequencer Programming	2
Subtotal Units	**12**

REQUIRED COURSES FOR SPECIALITY	
MUSIC 59AD Digital Recording & Sampling Tech	2

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

MUSIC 60AD ProTools (Digital Audio
    Recording/Edit) 2
MUSIC 72AD Commercial Improvisation/Arranging/
    Scoring 2
MUSIC 81AD Commercial Keyboard 2:2
MUSIC 84AD Commercial Songwriting 2:2:2
MUSIC 90AD Commercial Theory 2:2
Subtotal Units **20**

ELECTIVES - **Select** *SIX (6) units* **from the following:**
MUSIC 50AD Performance Showcase/Ensemble
    Workshop 1:1
MUSIC 60AD ProTools (Digital Audio Recording/
    Edit) 2:2:2
MUSIC 63AD Guitar/Bass (Intermediate) 1:1
MUSIC 74AD Commercial Solo Voice 2:2:2:2
MUSIC 79AD Guitar/Bass (Advanced) 1:1
MUSIC 80AD Commercial Music Performance 1:1
MUSIC 81AD Commercial Keyboard 2
MUSIC 83AD Film/Video Music Scoring 1:1
†MUSIC 88AD Small Studio Lab 1:1:1:1
•MUSIC 93AD Record Production (Using MIDI) 2:2
†MUSIC 95 Intermediate Recording Techniques 2
†MUSIC 96AD Advanced Recording Techniques 2:2
MUSIC 98AD Synthesizer/Drum Machine/Sequencer
    Programming 2
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 **UNITS**
¶• COMIS 1A Using the IBM 1
    OR
¶• CPAS 1B Using the MAC as a Tool for Learning 1

DRAFT 203AD Mechanical Drawing 3
    OR
†¶DRAFT 51A Industrial Drafting I 3

¶MACHT 50A Machine Tool Operation and Practices 3
†¶MACHT 50 B Machine Tool Operation & Practices 3

*†   ELTC 225 Algebra & Trigonometry for
    Technicians 3-4
    OR
*A more advanced or transferable math course.
(Trigonometry is recommended.)

Complete one (1) unit from the following:
WELD 453AD Welding (Acetylene Gas) 1:1:1:1
Subtotal Units **14-15**

LEVEL 2 - REQUIRED COURSES
†DRAFT 51B Industrial Drafting II 3
    OR
ARCHT 60 Architectural Design 8
•TEC 60 Computer Aided Design & Drafting (CADD) 3
Subtotal Units **6-11**

Complete the following TWENTY-FIVE (25) Units:
+ELTC 54 Digital/Telecommunications Circuits 6
+ELTC 54L Digital/Telecommunications Lab 2
+ELTC 55 Microcomputer/Introduction to Robotics 6
+ELTC 55L Microcomputer/Introduction to
    Robotics Lab 2
ELTC 56A-C Robotics Technology 2:2:2
ELTC 56LA-C Robotics Technology LAB 1:1:1
Subtotal Units **25**

TOTAL UNITS **45-51**

ADDITIONAL DESIRABLE COURSES
ELTC 204 Telecommunications I Lab 2
ELTC 205AB Telecommunications II Lab 2:2

NOTE: If 300 numbered versions of classes exist, they may be used toward the total units required.

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 **UNITS**
PREREQUISITES (Required Prior to Enrollment in
Program)
*BIO 60 Human Biology 1 4
BIO 60L Human Biology 1 Lab 1
CDECE 47 Human Development 3
†# *ENGL 105 Fundamentals of Writing
    OR
ENGL 1 Reading and Composition 3-4
Subtotal Units **11-12**

FIRST SEMESTER
†¶ADN 11A Introduction to Nursing (F, SP) 2.5
†ADN 11AL Introduction to Nursing Laboratory
    (F, SP) 1.5
†ADN 11B Health Deviations I (F, SP) 2.5

†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 West-ern Association of Schools and Colleges. The nursing program is accredited by the National League for Nurs-ing Accrediting Commission, 61 Broadway, 33rd Floor, New York, NY, 10006, (212) 363-5555 and the State of California Board of Registered Nursing. The Career Lad-der 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 pro-gram (30 unit option). This <u>Associate Degree</u> and <u>Certifi-cate</u> prepare students for an entry-level position in a variety of health care settings following successful com-pletion 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 com-plete 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 informa-tion call (562)938-4166.

RESTRICTIONS ON LICENSURE:
Persons with substance abuse problems or with con-viction 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 applica-tion 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 Pro-gram are eligible to transfer into the upper division nurs-ing courses in ADN to bachelor's degree nursing pro-grams and ADN to master's degree nursing programs. A suggested fulltime sample sequence of courses for the program is listed below. All ADN courses are sequential.

**PREREQUISITES COURSES FOR THE
PROGRAM**   **UNITS**
**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   3-4
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**

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

REQUIRED COURSES	UNITS
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 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 EXAMINA-TION. 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	UNITS
First Semester	

†ADN 20A Transition to Second Level Nursing   1
(Recommended but not required ADN 202AD, Nursing Skills Adjunct Lab)

| **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
†ADN322AL 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 hos-pitals, 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	UNITS
*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 |

Subtotal Units	**6**

FIFTH SIX WEEKS

†VOCN 288A Common Health Deviations 1I	3
†VOCN 288AL Common Health Deviations 1I Lab	3
Subtotal Units	**6**

SIXTH SIX WEEKS

†VOCN 288B Common Health Deviations 1II	3
†VOCN 288BL Common Health Deviations 1III Lab	3
Subtotal Units	**6**

SEVENTH SIX WEEKS

†VOCN 289C Developmental Levels: Adult	2
†VOCN 289CP Developmental Levels: Adult Prac	2
†VOCN289CL Developmental Levels: Adult Lab	2
Subtotal Units	**6**

EIGHTH SIX WEEKS

†VOCN 290B Roles and Responsibilities 2	1.5
†VOCN 289A Developmental Levels: Maternal/Inf	1
†VOCN 289AL Developmental Levels: Maternal/Inf	2
†VOCN 289B Developmental Levels: Child	1
†VOCN 289BP Developmental Levels: Child Prac	1
Subtotal Units	**6.5**
TOTAL	**46.0 Units**

COMPLETION CERTIFICATES

The Department of Vocational Nursing offers the following completion certificates for preparation to enter the Vocational Nursing Program. The requirements for the certificates, which vary from two to six units, are listed below. To earn the completion certificate complete the required units with a minimum grade of "C". Submit a completed application for the Completion Certificate in the Admissions and Records Office after completion of required units.

Nursing Assistant Certificate

REQUIRED COURSES	UNITS
†VN 210A Nursing Assistant (F, SP, S)	6
TOTAL UNITS	**6**

Home Health Aide Certificate

REQUIRED COURSES	UNITS
†VN 210B Home Health Aide	2
TOTAL UNITS	**2**

OFFICE ASSISTANT

Career or Completion Certificate and/or Associate in Arts

Students prepare for an entry-level office assistant position. Understanding the functions that make up an office support or information processing system is the focus of this program. This underline 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 Operating Systems (Beginning) (F,SP,S)	1

•CAOTC 35 Microsoft Office (F, SP)	3
•CAOTC 41E Excel for Windows (Beginning) (F, SP, S)	1
•CAOTC 45 Telecommunications and the Internet (F, SP, S)	2
CAOTO 15 Business Communications (F, SP)	3
CAOTO 30 Business Calculating Machines (F, SP, S)	2
CAOTO 214A-B Filing A and Filing B (F, SP, S)	1:1
CAOTO 216 Proofreading Skills (F, SP)	1
CAOTO 222 Employment Testing and Interviewing (F, SP)	3
CAOTO 260 Business Telephone Procedures (F, SP, S)	1
CAOTO 262 Professional Development for the Office (F, SP)	1
CAOTO 263 Customer Service (F, SP, S)	1
•CAOTT 201 Intermediate Typing/Keyboarding (F, SP)	2

Two (2) units from any of the following:

¶CAOTC 39A-D Microsoft Word for Office, Levels 1-4 (F, SP, S)	1:1
CAOTC 215A Microsoft Outlook (F, SP)	2
Subtotal Units	**25**

ELECTIVES:

Select any *THREE (3)* units from the following courses

•CAOTC 31B Microsoft Operating Systems (Advanced) (F, SP, S)	1
•CAOTC 34 Introduction to Office Computers & Applications (F, SP)	3
•#CAOTC 39A-D Microsoft Word for Office, Levels 1-4 (F, SP, S)*	1:1
•CAOTC 41F,J Excel for Windows (Intermediate, Advanced) (F, SP, S)	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 47A,B Access for Office Applications (Beginning, Intermediate) (F, SP)	3:3
CAOTC 215BElectronics Records Management (F,SP)	2
CAOTC 220 Hand-Held Electronic Organizers (F, SP)	1
•¶#CAOTC 236A-D Word Processing-WordPerfect, Levels 1-4 (F, SP, S)	1:1:1:1
•CAOTC 246 Computer Financial Calculations (F, SP)	3
CAOTC 250A-C Data Entry, Levels 1, 2, 3 (F, SP)	2:3:3
•CAOTC 265 Computer Transcription (F, SP)	2
CAOTO 240A,B Word MOUS Proficient or Expert User Test Prep (F, SP)	0.5
CAOTO 261 Business English (F, SP, S)	3
CAOTT 209AB Speed/Accuracy Building for Typists (F, SP)	1:1
Subtotal Units	**3**
TOTAL UNITS	**28**

COMPLETION CERTIFICATES

Basic Microsoft Office Certificate

REQUIRED COURSES	UNITS
CAOTC 35 Microsoft Office	3
TOTAL UNITS	**3**

Basic Office Skills Certificate

REQUIRED COURSES	UNITS

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

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
CAOTT 233 Computer Keyboarding 1

TOTAL UNITS **7-9**

Basic Word Processing Certificate
REQUIRED COURSES **UNITS**
CAOTC 39A Microsoft Word for the Office, Beginning1
CAOTC 39B Microsoft Word for the Office,
  Intermediate 1
CAOTC 39C Microsoft Word for the Office, Advanced1
CAOTC 39D Microsoft Word for the Office, Expert 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
  AND
CAOTO 216 Proofreading Skills 1
CAOTC 265 Computer Transcription 2

TOTAL UNITS **7**

COREL WordPerfect Certificate
REQUIRED COURSES **UNITS**
CAOTC 236A Word Processing-WordPerfect,
  Beginning 1
CAOTC 236B Word Processing-WordPerfect,
  Intermediate 1
CAOTO 236C Word Processing-WordPerfect,
  Advanced 1
CAOTO 236D Word Processing, WordPerfect, Expert 1

TOTAL UNITS **4**

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**

Microsoft Word Certificate
REQUIRED COURSES **UNITS**
CAOTC 39A Microsoft Word for the Office, Beginning1

CAOTC 39B Microsoft Word for the Office,
  Intermediate 1
CAOTO 39C Microsoft Word for the Office, Advanced1
CAOTO 39D Microsoft Word for the Office, Expert 1

TOTAL UNITS **4**

#Cannot be used again if counted above under required courses.

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 underlined certificate will prepare students for an entry-level position in the field of commercial photog-raphy. This <u>Associate Degree</u> 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 depart-mental 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) 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) 1:1:1:1
†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**
Select *SIX* (6) units from the following courses:
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

(2nd Semester or later) (F, SP, S) —

(2nd Semester or later) (F, SP, S)	4
PHOT 35AD Photojournalism (SP)	3:3:3
†PHOT 37AD Portrait Photography (2ND Semester) (F, SP)	3
PHOT 38 Marketing Professional Photography Skills (INF)	2
†PHOT 39AD Documentary Photography (1ST Semester) (INF)	3
†PHOT 40AD View Camera/ "Zone System" Photography (F, SP)	4
†PHOT 41AD Professional Photographic Portfolio (F, SP)	4:4:4:4
† PHOT 42AD Experimental Photography Lab (2nd Semester or later) (F, SP)	4:4:4
† PHOT 43AD Digital Photography (F, SP)	3
† PHOT 281AD Photography Laboratory (F, SP)	Maximum of 3
Subtotal Units	**6**
TOTAL UNITS	**40**

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	UNITS
†ENGL 1 or ENGL 1H Reading & Composition OR	3
†ENGL 105 Fundamentals of Writing	4
†JOURN 80AD Working on the Newspaper (2 semesters) (F, SP, S)	3:3
¶PHOT 31AB Basic Photo-Black & White	3
PHOT 32A Basic Photo-Color	3
PHOT 35AD Photojournalism (1 semester)	3
Subtotal Units	**18-19**

Select *NINE* (9) units from the following:

JOURN 6AD 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	UNITS
PEPP 1 Introduction to Physical Education OR	2
PEPP 7 Introduction to Community Recreation	3
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°

PEPF 8AD Aerobic Circuit Training	2.5
PEPF 83AD, 84AD Fitness & Wellness I & II (F, SP)	2
PEPP 5 Sports Appreciation (F)	3
PEPP 10 Prevention & Care of Athletic Injuries (F, SP)	3
*PEPP 15 Sports Officiating (F)	3
*PEPP 17 Sports Officiating (SP)	3
PEPP 19AD Theory of Football (F)	2
PEPP 23 First Aid & Safety Education	3
#PEPP 70 AD Work Experience Issues (F, SP)	1
#PEPP 71AD, 72AD OR 73AD Work Experience (F, SP)	1-3

Aquatics Category†

*PEG 55AD Life Guard/Water Safety Training (F, SP, S)	4
*PEG 75AD OR PEG76AD Swimming (F, SP, S)	0.5,1
PEPF 41AD OR 42AD Swimming Fitness	0.5,1
*PEPF 47AD OR 48AD Swim Fitness/Polo (F, SP)	0.5,1
*PEPP 41 Aquatics (Coed) (F, SP)	2

Individual & Dual Activities Category †

•PEPF 2AD Monitoring and Developing Sports Skills (S)	1
*PEPP 13 OR PEPF 5AD OR PEPF 6AD Dance Aerobics (F, SP, S)	1, 0.5,1
*PEPP 29 OR PEG 87AD OR PEG 88AD Cross Country OR Track & Field (Men) (F)	1, 0.5,1
*PEIA 9AD OR PEIA 19AD Cross Country, Track & Field (Men) (SP)	3
*PEG 5AD OR PEG 6AD Archery (Coed) (F, SP)	0.5,1
*PEG19AD OR PEG20AD Bowling (Coed) (F, SP)	0.5,1
*PEPP 45 OR PEG 9AD OR PEG 10AD Badminton (Coed) (F, SP)	1, 0.5,1
*PEPP 51 OR PEG 31AD OR PEG 32AD Golf (Coed/Women) (F, SP) OR	1, 0.5,1
*PEIA 9AD Golf (Coed/Women) (SP) OR	3
*PEIA 31AD Golf (Coed/Women) (F)	3
*PEPP 53 OR PEG 83AD OR PEG 84AD Tennis (Coed) (F, SP, S)	1, 0.5,1
*PEG 58AD Intramural Activities (F, S)	1
*PEPP 65 OR PEIA 43AD Track & Field (Women) (SP) OR	1,3
*PEG 87AD OR PEG 88AD Track & Field	

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

(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
*PEPF 2AD Monitoring and Developing Sport
  Skills (S) 1
PEPF 8AD Physical Fitness 2.5
*PEPF 21AD OR 22AD Physical Fitness (F, SP, S) 0.5,1
*PEPF 41AD OR 42AD Swim Fitness (F, SP) 0.5,1
*PEPF 47AD OR 48AD Swim Fitness/Polo (F, SP) 0.5,1
*PEPF 53AD OR 54AD Weight Training (F, SP, S) 0.5,1
*PEPF 81AD Fitness & Wellness Center (F, SP, S) 1
PEPF 83AD OR 84AD Fitness & Wellness I, II 2,2

Team Sports†
*PEPF 2AD Monitoring and Developing Sport
  Skills (S) 1

*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) 0.5,1,3

*PEPP 31 Football (Men) (SP) OR 1
PEG85AD OR PEG86AD Football (Men) (F,SP) OR .5,1
PEIA 7AD Football (Men) (F) 3

*PEPP 35 Soccer (Men) (SP) OR 1
PEG69AD OR PEG70AD Soccer (Men) (F, SP) 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, S) 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) (F,SP) .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

Any of:
*PEIA 23AD, 29AD, 31AD, 47AD 3
*PEIA 5AD, 9AD, 15AD, 17AD, 19AD, 39AD, 41AD,
  43AD 3

Outdoor Studies†
*PEOS 5AD Backpacking (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**

NON-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, PHYSI 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 in 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, PGEOG 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   **UNITS**

R/TV 1 Introduction to Broadcasting (F, SP, S)   3

•R/TV 3 Using/MAC Computer/Entertainment
   Industry (F, SP)   2

¶R/TV 8 Introduction to Media Production (F)   3

 R/TV 13AD Television Production (F, SP)   2

Subtotal Units   **10**

REQUIRED COURSES FOR SPECIALITY

R/TV 13AD Television Production (F, SP)   2

R/TV 14AD Electronic Field Production & Editing
   (F, SP)   2:2

¶R/TV 25AD/35AD Radio/Television Activity
   (F, SP) (2 semesters required)   2:2

R/TV 30AD Broadcast News Writing (INF)   1.5:1.5

R/TV 36AD Broadcast News Production (F, SP)   3:3:3

R/TV 40AD Performance Before a Camera (S)   2

°R/TV 70AD Work Experience Issues-Radio/
   Television (F, SP)   1

°R/TV 71/73 AD Work Experience (F, SP)   1

Subtotal Units   **26**

REQUIRED ELECTIVES (Select *SIX (6) units* from
the following):

R/TV 2 Introduction to Careers in Radio &
   Television (F)   2

R/TV 4 Writing and Production Planning (INF)   3

R/TV 6 Critical Television Viewing (F)   3

R/TV 12 Television Lighting (INF)   2

R/TV 15AC Advanced Television Production (INF)   2

R/TV 17AD Special Projects in Radio/Television (INF) 1

R/TV 21 Radio Production (S)   3

R/TV 34AD Music Video Production   2:2

R/TV 36AD Broadcast News Production (F, SP)   3

R/TV 37 Radio/Television Management and Sales (F) 3

°R/TV 70AD Work Experience Issues-Radio/
   Television (F, SP)   1

°R/TV 71/73 AD Work Experience (F, SP)   2:3

Other courses for area of specialization may be approved

Subtotal Units   **6**

TOTAL UNITS   **42**

RADIO/TELEVISION
MULTIMEDIA PRODUCTION
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 production 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 multimedia production program. For more departmental information call (562) 938-4309 or 938-4564.

REQUIRED CORE COURSES   **UNITS**

R/TV 1 Introduction to Broadcasting (F, SP, S)   3

•R/TV 3 Using/MAC Computer/Entertainment
   Industry (F, SP)   2

¶R/TV 8 Introduction to Media Production (F)   3

R/TV 13 Video Production (F, SP)   2

Subtotal Units   **10**

REQUIRED COURSES FOR SPECIALITY

ART 41 Introduction to Computer Graphics (F, SP)   3

†CBIS 206B Web publishing with HTML   1

MUSIC 59AD Digital Recording and Sampling
   Techniques   2

Subtotal Units   **6**

**ELECTIVE COURSES (Select TEN (10) units from
the following):**

†ART43AD Computer Graphics for the Internet (F,SP)3

†ART 47AD Computer Art and Design for Multimedia
   (F, SP)   3

MUSIC 94 Beginning Recording Techniques   2

MUSIC 98AD Synth/Drum/Sequencer Programming   2

†PHOT 43AD Digital Photography (F, SP)   3

R/TV 2 Careers in Radio, Television and
   Multimedia (F)   2

R/TV 4 Writing and Production Planning (INF)   3

R/TV 14 Electronic Field Production & Editing (F,SP) 2

R/TV 21 Audio Production (S)   3

°R/TV 70AD Work Experience Issues-Radio/
   Television (F, SP)   1

°R/TV 71/73AD Work Experience (F, SP)   1

Other courses for area of specialization may be
approved by the M/R/TV department chair..

Subtotal Units   **10**

TOTAL UNITS   **26**

RADIO/TELEVISION
PERFORMANCE
Career Certificate and/or Associate in Arts

Students prepare for performing in radio and television programs either independently or as part of a cast. 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   **UNITS**

R/TV 1 Introduction to Broadcasting (F, SP, S)   3

•R/TV 3 Using/MAC Computer/Entertainment
   Industry (F, SP)   2

¶R/TV 8 Introduction to Media Production (F)   3

R/TV 13AD Television Production (F, SP)   2

Subtotal Units   **10**

REQUIRED COURSES FOR SPECIALITY

R/TV 13AD Television Production (F, SP)   2

¶R/TV 25AD/35AD Radio/Television Activity
   (F, SP) (2 semesters required)   2:2

R/TV 34AD Music Video Production   2

*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
R/TV 37AD Broadcast Management and Sales (F)	3
°R/TV 70AD Work Experience Issues-Radio/	
Television (F, SP)	1:1
°R/TV 71/73AD Work Experience (F, SP)	1:1
Other courses for area of specialization may	
be approved	
Subtotal Units	**5**
TOTAL UNITS	**35**

RADIO/TELEVISION PRODUCER

Associate in Arts/Career Certificate

Students prepare for producing radio or television programs either independently or in a production environment. This <u>certificate</u> will prepare students for an entry-level position or provide skills for advancement in a variety of venues including radio, television, film and related digital or computer technology (multimedia) in the communication, information and/or entertainment industries. The <u>Associate Degree</u> will prepare students for career advancement in this field. Appropriate course selection will also facilitate transfer to a four-year college or university in broadcast, film, computer animation or multimedia production. For more departmental information call (562)938-4309 or 938-4564.

REQUIRED CORE COURSES	**UNITS**
R/TV 1 Introduction to Broadcasting (F, SP, S)	3
•R/TV 3 Using/MAC Computer/Entertainment	
Industry (F, SP)	2
¶R/TV 8 Introduction to Media Production (F)	3
R/TV 13AD Television Production (F, SP)	2
Subtotal Units	**10**

REQUIRED COURSES FOR SPECIALITY

R/TV 4 Writing and Production Planning (INF)	3
R/TV 13AD Television Production (F, SP)	2
†R/TV 14AD Electronic Field Production and	
Editing (F, SP)	2
¶R/TV 25AD/35AD Radio/Television Activity	
(F, SP) (2 semesters required)	2:2
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**

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 15AC Advanced Television Production (INF)	2
R/TV 17AD Special Projects in Radio/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 37 Radio/Television Management and Sales (F)	3
Other courses for area of specialization may be approved	
Subtotal Units	**5**
TOTAL UNITS	**40**

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

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)   3:3

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 MANAGEMENT
FOOD INDUSTRY EMPHASIS
Career Certificate

Students prepare for management positions including store manager, assistant manager, grocery manager and senior supervisor within the retail food industry. Satisfactory completion of this program fulfills the requirements of the Western Association of Food Chains. For more departmental information call (562) 938-4332.

REQUIRED COURSES	UNITS
ACCTG 201A Fundamentals of Bookkeeping (S) OR	3
ACCTG 1A Principles of Accounting (F, SP, S)	4

•COMIS 1A Using the IBM Microcomputer (F, SP)   1
   OR
•CPAS1B Using the MAC as a Tool for

Learning (F,SP) OR   1
•CPAS 10 Advanced Computer Skills for Learning
   (F, SP)   1
CAOTO 15 Business Communications (F, SP, S) OR   3
ENGL 105 Fundamentals of Writing   4

INDRL 42 Basic Human Relations OR   *3*
MGMT 58 Management Skills for Women (F) OR   3
SP 31 Elements of Leadership Communication (F, SP) 3

GBIS 251 Business Mathematics (F)   3
¶MKTG 42 Retailing Principles and Practices (INF) 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
SP 20 Elements of Interpersonal Communication
   (F, SP, S)   3
TOTAL UNITS   **28-30**

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 & 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 <u>certificate</u> leads towards positions as aides, 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	UNITS
Early Childhood	
¶CDECE 45 Child Development D1 (F, SP) OR	3
CDECE 47 Human Development D1 (F, SP)	3
CDECE 48 Child, Family and Community D2 (F, SP)	3
School Age	
CDSA 62 Creative Expression, School Age Children (F or SP)	2
CDSA 63 The School Age Child (F or SP)	3
CDSA 65 School Age Curriculum (F or SP)	3
†CDSA 75 School Age Child Care Practicum D5 (F or SP)	3
Special Education	
CDSED 67 The Exceptional Child D1 (F, SP)	3
Subtotal Units	**20**

Select *FIVE* (5) units from the following:

	UNITS
Early Childhood	
CDECE 19 Child Nutrition & Safety D7 (SP)	2
CDECE 55 Music for Children D3 (F, SP)	2
CDECE 56 Creative Movement for Young Children D5 (INF)	2
CDECE 59 Child Behavior D3 (F, SP)	3
†CDECE 60A Admin. of Child Dev. Programs D6 (F)	3
†CDECE 60B Advanced Supervision of ECE D6 (SP)	3
CDECE 61 Child in the Multi-Cultural Classroom D3 (SP)	3
°CDECE 70AD Work Experience Issues-Child Dev.	1
°CDECE 71AD, 72AD OR 73AD Vocational Work Experience (Not to exceed 3 units)	1, 2 or 3
Special Education	
CDSED 70 Teaching Exceptional Children (SP)	3
Subtotal Units	**5**
TOTAL UNITS	**25**

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	UNITS
SHMET 201 Sheet Metal 1	10
SHMET 202 Sheet Metal 2	10
SHMET 203 Sheet Metal 3	10
SHMET 204 Sheet Metal 4	10
WELD 400AD Welding-General	2
TOTAL UNITS	**42**

RECOMMENDED **but not required:**
SHMET 220A-D Surface Development and Fabrication 5:5:5:5
WELD 400 band Welding 2

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	UNITS

Complete *NINE* (9) units in *HISTORY* and *POLITICAL SCIENCE* courses numbered 1-99. Choose at least *ONE* course from the History department and *ONE* course from the Political Science department.

HISTORY
POLITICAL SCIENCE
| **Subtotal Units** | **9** |

IN ADDITION, **complete *NINE* (9) units in courses numbered 1-99 from the following departments. This must include at least *SIX* (6) units in *ONE* of the departments:**

ANTHR (except ANTHR 1)
ECON
GEOG (except PGEOG 1)
PHIL
PSYCH
PUBAD
SOCIO
SOCSC 1/HUMAN 1
SOCSC 7/HUMAN 7
| **Subtotal Units** | **9** |
| **TOTAL UNITS** | **18** |

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	UNITS
Special Education	
CDSED 5 Community Resources for Special Education (SP)	3
CDSED 67 The Exceptional Child D1 (F, SP)	3
†CDSED 69 Special Education Practicum (F, SP)	3
CDSED 70 Teaching Exceptional Students (SP)	3

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
ºCDECE 70AD Work Experience Issues-
  Child Development   1
ºCDECE 71AD, 72AD, 73AD Work Experience
  (Not to exceed 3 units)   1:2:3
COMDI 2B American Sign Language, Beginning   3
†COMDI 3A-B Total Communication w/Deaf,
  Intermediate   3:3
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
SOCIO 1 Introduction to Sociology   3
SOCIO 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

†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	**22**

REQUIRED COURSES	UNITS

**Select a minimum of FOUR (4) units from the
following:**
TART 30 Introduction to Dramatic Literature (F) — 3
TART 44AB Costume Design (F, SP) — 2
TART 49AD Rehearsal and Performance — 1:1:1:1
TART 56AD Advanced Stage Make-Up (F, SP) — 2
†TART 60AD Special Projects in Theatre Arts
   (F, SP) — 1:1
TART 76AD Summer Repertory Theatre:
   Production (S) — 1:1
Subtotal Units — **4**

TOTAL UNITS — **26**

TOOL DESIGNER

MANUFACTURING TECHNOLOGY
Associate in Science/Career Certificate

Students prepare for entry-level positions as tool designers in the aerospace or comparable manufacturing industry. Tool designers generate conceptual designs for tools in conformance with defined current tooling engineering standards and practices. Tool designers plan the sequence of operations necessary to layout, fabricate and assemble cost effective tooling. 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)938-3157 or 938-3092.

LEVEL 1 - REQUIRED COURSES	UNITS
¶MACHT 50A Machine Tool Operation and Practices	3
†¶MACHT 50B Machine Tool Operation and Practices	3
•¶COMIS 1A Using the IBM Microcomputer OR	1
•¶CPAS 1B Using the MAC as a Tool for Learning	
DRAFT 203AD Mechanical Drawing OR	3
†¶DRAFT 51A Industrial Drafting I	
*† ELTC 225 Algebra & Trigonometry for Technicians	
OR	3-4

*A more advanced or transferable math course.
(Trigonometry is recommended.)

Complete One (1) unit from the following:
WELD 453AD Welding (Acetylene Gas) — 1:1:1:1
Subtotal Units — **14-15**

LEVEL 2 - REQUIRED COURSES	
†DRAFT 51B Industrial Drafting II OR	3
†ARCHT 60 Architectural Design	8
†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 <u>Certificate</u> 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 require-ments 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)	3:3
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	

(One semester minimum) (F, SP) 1

Complete a minimum of *THREE* (3) units from the following:
†THRT 271AD Travel/Tourism Work Experience
(F, SP) 1:1:1:1
†THRT 272AD Travel/Tourism Work Experience
(F, SP) 2:2:2:2
†THRT 273AD Travel/Tourism Work Experience
(F, SP) 3:3:3:3
Subtotal Units 43

Select *ONE* of the following:
•¶CAOTT 200 Beginning Typing/Keyboarding
(F, SP, S) 3
•CAOTT 201 Intermediate Typing/Keyboarding (F,SP)2
•CAOTT 200A Typing/Keyboarding A,B,C
(F, SP S) OR 1:1:1
A typing proficiency test of 35 words per minute
Subtotal Units 0-3

TOTAL UNITS 43-46

RECOMMENDED but not required courses:
•CAOTC 41E/F Excel for Windows (Beginning,
Advanced) (F, SP, S) 1:1
•CAOTC 39AB Microsoft Word for Office
(Beginning, Advanced) (F, SP, S) 1:1
CBIS 206A Navigating the Internet (F, SP, S) 1
Foreign Language 1-2 (First year level equivalency) 5:5
†GBUS 251 Business Mathematics (F) 3
GEOG 40 World Regional Geography (F, SP, S) 3
THRH 28 Convention Management and Meeting
Planning (INF) 3
LAW 18A Business Law (F, SP, S) 3
MGMT 80 Small Business Entreprenuership (F, SP, S)3
†SP 10 Elements of Public Speaking (F, SP, S) 3
SP 25 Elements of Intercultural Communication
(F, SP, S) 3
THRT 226 Travel Industry Bookkeeping and
Reporting (INF) 3
THRT 228 Corporate Travel Management (INF) 3

COMPLETION CERTIFICATES

Air Reservation Specialist Certificate
REQUIRED COURSES UNITS
THRT 214 Travel Marketing and Sales Techniques (F)3
THRT 222A-C Travel Industry Computer System
(F, SP) 3
THRT 230 Travel Industry OAG, Fares and
Ticketing (F, SP) 3
TOTAL UNITS 9

Cruise Specialist Certificate
REQUIRED COURSES UNITS
THRT 214 Travel Marketing and Sales Techniques (F)3
THRT 216B-D Geographic Locations and Tourist
Destinations (F, SP) (two courses required) 3:3
THRT 219 Cruise Ship Specialization and Techniques 3
TOTAL UNITS 12

Travel Destinations Certificate
REQUIRED COURSES UNITS
THRT 214 Travel Marketing and Sales Techniques (F)3

THRT 216B Travel Destinations-North, Central
and South America (F, SP) 3
THRT 216C Travel Destinations-Europe and
Africa (F, SP) 3
THRT 216DTravel Destinations-Pacific, Asia and
Middle East (F, SP) 3
TOTAL UNITS 12

Travel Industry Management Specialist Certificate
REQUIRED COURSES UNITS
THRT 214 Travel Marketing and Sales Techniques (F)3
THRT 215 Travel Operations and Risk Mgmt. (SP) 3
THRT 216B-D Travel Destinations (One semester)
(F, SP) 3
THRT 218 Transportation and Tours (F) 3
THRT 234 Tour Management and Escorting (F) 3
TOTAL UNITS 15

WELDING TECHNOLOGY
(Preparatory Program)
Associate in Science/Career Certificate

Students prepare for entry-level welding positions in aerospace, piping industry and construction. The Long Beach City College Welding program is articulated with the Long Beach Unified School District ROP Welding program. Students who complete LBUSD ROP Welding may receive advanced placement. For more departmental information call (562)938-3074 or 938-3054.

REQUIRED COURSES UNITS
Select ONE of the following Options:

Option #1
Complete 40 units from the following courses:
WELD 211 Fundamentals of Welding and Tools of
Trade 9
†WELD 212 Arc Welding and Fabrication 9
†WELD 213 Advanced Arc Welding 9
†WELD 214 Inert Gas Welding 9
†WELD 220 Structural Arc Welding 6
†WELD 221 Arc Welding Structural Certification 4
†WELD 230 Fundamentals of Inert Gas Welding
(Heliarc, MIG) 4
†WELD 231 Prep. for Inert Gas Welding Certification6
†SHMET220AD Surface Development and Fabrication5
MACHT 50A Machine Tool Operation and Practices 3

Option #2
SHMET 220 (5 units) *AND* 35 units of Welding -18 units must be from 200 series listed above, balance of courses from any 200/400 welding series courses (no credit allowed for repetition of course).

TOTAL UNITS 40

RECOMMENDED but not required course:
MFGS 424 Blueprint Reading for Manufacturing
Industries 2

WORD PROCESSING
Career or Completion Certificate and/or Associate in Arts

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 <u>certificate</u> will prepare students for an entry-level position in a variety of business settings and will serve as a foundation for specialization. This <u>Associate Degree</u> 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-B Microsoft Windows Operating System (Beginning, Advanced) (F, SP, S)	1:1
•CAOTC 34 Introduction to Computers and Applications (F, SP)	3
CAOTC 41E Excel for Windows (Beg.) (F, SP)	1
•CAOTC 44D PowerPoint for Windows (Beg.)(F, SP)	1
CAOTC 45 Telecommunications and the Internet (F, SP, S)	2
CAOTO 15 Business Communications (F, SP)	3
CAOTO 216 Proofreading Skills (F, SP)	1
CAOTO 240A Word MOUS Proficient-User Test Preparation (F, SP)	0.5
CAOTO 240B Word MOUS Expert-User Test Preparation (F, SP)	0.5
CAOTO 260 Business Telephone Procedures (F,SP,S)	1
CAOTO 261 Business English (F, SP, S)	3
Subtotal Units	**18**

Select any *FOUR* (4) units from one of the following groups:

•#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**

Select any *FOUR* (4) units from the following:

CAOTC 41F, J Excel for Windows (Intermediate, Advanced) (F, SP, S)	1:1
CAOTC 44E PowerPoint for Windows, Advanced	1
•CAOTC 47A-B Access for Office Applications (Beginning, Intermediate) (F, SP)	3:3
••#CAOTC 236A-D Word Processing–WordPerfect, Levels 1-4 (F, SP, S)	1:1:1:1
CAOTO 222 Employment Testing and Interviewing (F, SP)	3
CAOTO 262 Professional Development for the Office (F, SP, S)	1
•CAOTT 201 Intermediate Typing/Keyboarding (F,SP)	2
•CAOTT 209AB Speed and Accuracy Building for Typists (F, SP)	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	UNITS

CAOTC39A Microsoft Word for the Office, Beginning	1
CAOTC 44D PowerPoint for Windows	1
CAOTO 15 Business Communications	3
CAOTO 261 Business English	3
CAOTO 262 Professional Development for the Office	1
TOTAL UNITS	**9**

Basic Office Computer Skills Certificate

REQUIRED COURSES	UNITS
CAOTC 34 Introduction to Computers & 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
CAOTT 233 Computer Keyboarding	1
TOTAL UNITS	**7-9**

REQUIRED COMPETENCY: Typewriting Certificate of 25 wpm for five minutes with no more than five errors within the previous twelve months.

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 39D Microsoft Word for the Office, Expert	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
AND	
CAOTO 216 Proofreading Skills	1
CAOTC 265 Computer Transcription	2
TOTAL UNITS	**7**

REQUIRED COMPETENCY: Typing certificate of 35 wpm for five minutes with five or fewer errors completed within the previous twelve months.

COREL WordPerfect Certificate

REQUIRED COURSES	UNITS
CAOTC 236A Word Processing-WordPerfect, Beginning	1
CAOTC 236B Word Processing-WordPerfect, Intermediate	1
CAOTO 236C Word Processing-WordPerfect, Advanced	1
CAOTO 236D Word Processing, WordPerfect, Expert	1
TOTAL UNITS	**4**

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	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

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, Beginning1
CAOTC 39B Microsoft Word for the Office,
  Intermediate   1
CAOTO 39C Microsoft Word for the Office, Advanced1
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 <u>advice</u> 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

ACCTG 1A (Part of CAN BUS SEQUENCE A) 4.0 units
Principles of Accounting
5 hours lecture.
Recommended Preparation: ACCTG200A or one year of bookkeeping.
Grading: letter grade.
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*.

ACCTG 1B (Part of CAN BUS SEQUENCE A) 4.0 units
Principles of Accounting
5 hours lecture.
Prerequisite: ACCTG 1A
Grading: letter grade.
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.*

ACCTG 18 3.0 units
Credit and Financial Statement Analysis
3 hours lecture.
Grading: letter grade.
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.*

ACCTG 200A 3.0 units
Introduction to Accounting
3 hours lecture.
Grading: letter grade.
Provides a general understanding of accounting principles for a service enterprise using the "cash" and "accrual" methods. *Course articulated with LBUSD.*
ACCTG 201A 3.0 units
Fundamentals of Bookkeeping
2 hours lecture, 3 hours laboratory
Grading: letter grade.
Teaches systems of record keeping, starting up those systems, recording transactions and closing the books using a business simulation practice set.

ACCTG 201B 3.0 units
Fundamentals of Bookkeeping
2 hours lecture, 3 hours laboratory
Prerequisite: ACCTG 201A
Grading: letter grade.

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.

ACCTG 205 3.0 units
Fundamentals of Tax
3 hours lecture.
Grading: letter grade.
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.

ACCTG 225 4.0 units
Intermediate Accounting
5 hours lecture.
Prerequisite: ACCTG 1B
Grading: letter grade.
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.

ACCTG 228 2.0 units
Computerized Gen Ledger Account Systems
2 hours lecture, 1 hour laboratory
Prerequisite: ACCTG 1A or 200A
Grading: letter grade.
Provides experience using and comparing existing commercial general ledger accounting programs.

ACCTG 229 3.0 units
Spreadsheet Accounting
3 hours lecture, 1 hour laboratory
Prerequisite: ACCTG200A or 1A or 201A-B and CBIS 2 or CAOTC35 or 41E
Grading: letter grade or credit/no credit
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.

ACCTG 230 1.0 unit
Quickbooks Accounting
1.5 hours lecture, 0.5 hours laboratory
Recommended Preparation: General familiarity and use of a PC.
Grading: letter grade or credit/no credit
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.

ADMINISTRATION OF JUSTICE

ADJUS 2 (CAN AJ 2) 3.0 units
Introduction, Administration of Justice
3 hours lecture.
Grading: 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. Course articulated with LBUSD.*

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 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 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 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 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 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 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 CSU, see counselor for limitations.*

ADJUS 18   3.0 units
Police Field Operations
3 hours lecture.

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.*

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 hours 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

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 1. 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 Hepatitus 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 BL or VOCN 287B and BL or EMT 251 and 251L or AH 61 (formerly AH/HTECH61).
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.

AH 280   **2.0 units**

Health Unit Secretary
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. Emphasizes basic procedures utilized by the health 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.

AH 280L   **1.0 unit**

Health Unit Secretary, Laboratory
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.

AH 602   **0.0 units**

Cardio Pulmonary Resuscitation
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.

ANATOMY

ANAT 1 (CAN BIOL 10)   **4.0 units**

Human Anatomy
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.*

ANAT 1H   **4.0 units**

Honors Human Anatomy
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.*

ANAT 41   **5.0 units**

Anatomy & Physiology
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.*

ANTHROPOLOGY

ANTHR 1 (CAN ANTH 2)   **3.0 units**

Physical Anthropology
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.*

ANTHR 2 (CAN ANTH 4)   **3.0 units**

Cultural Anthropology
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.*

ANTHR 2H   **3.0 units**

Honors Cultural Anthropology
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.*

ANTHR 3   **3.0 units**

Intro to Archaeology
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.*

ANTHR 10   **3.0 units**

Magic, Witchcraft and Religion
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.*

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 AutoCAD2000i 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 ARCHT60.) *Transfer Status: Transferable to CSU, see counselor for limitations. Course articulated with LBUSD.*

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, with an intro to 3D drawing systems. Develop structural drawings for design problems developed in ARCHT65 using the computer and freehand and 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

and applied to the drawings. (Units and content are one-half of ARCHT64.) *Transfer Status: Transferable to CSU, see counselor for limitations.*

ARCHT 70AB   8.0 units
Architectural Design
6 hours lecture, 6 hours laboratory
Prerequisite: ARCHT 64 or ARCHT 65 and 66
Grading: letter grade.
An advanced computer aided drafting course (2 semesters, A and B) that uses AutoCAD 2000i for 2D drawings and an intro to 3D Studio Viz for the development of 3D drawing. Focuses on developing further the 2D CAD production and 3D drawing skills learned in ARCHT64. Develop advanced 2D CAD production drawings for building ones own design. Resolve advanced design and structural problems using the computer and freehand sketching techniques. 3D models and details of the project will be developed. The use of tonal values and shade and shadows will be applied to the drawings. An opportunity to design and build a portable structure may exist in the spring semester. A portfolio of work and a resume will be developed. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ARCHT 71AD   4.0 units
Architectural Design
3 hours lecture, 3 hours laboratory
Prerequisite: ARCHT 66.
Grading: letter grade.
A course of up to four semesters (A,B,C,D) to develop skills in advanced computer aided drafting that uses AutoCAD 2000i for 2D drawings and 3D Studio Viz for 3D drawings. Focuses on developing further the 2D CAD production and 3D drawing skills learned in ARCHT64 or ARCHT65 and 66. Develop advanced 2D CAD production drawings for a building of one's own design. Resolve advanced design and structural problems using the computer and freehand sketching techniques. 3D models and details of the project will be developed. The use of tonal values and shade and shadows will be applied to the drawings. A portfolio of work and a resume will be developed. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ART

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.*

ART 2 (CAN ART 4)   3.0 units
Art and Civilization
3 hours lecture.
Grading: letter grade or credit/no credit
An historical approach to painting, sculpture and architecture from Renaissance to modern times, emphasizing the relationship of art to concurrent philosophical, political and social ideas. Discussion includes key artists and their techniques. Art 1 is NOT a prerequisite. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ART 2H (CAN ART 4)   3.0 units
Honors Art and Civilization
3 hours lecture.
Prerequisite: Qualification for the Honors Program.
Grading: letter grade or credit/no credit
An historical approach to painting, sculpture and architecture from Renaissance to modern times emphasizing the relationship of art to concurrent philosophical, political and social ideas. Discussion includes key artists and their techniques. Art 1 is NOT a prerequisite. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ART 3   3.0 units
Modern and Contemporary Art
3 hours lecture.
Grading: letter grade or credit/no credit
A survey of modern art from its mid-19th century beginnings to contemporary trends. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ART 3H   3.0 units
Honors Modern and Contemporary Art
3 hours lecture.
Prerequisite: Qualification for the Honors Program.
Grading: letter grade or credit/no credit
A survey of modern art from its mid-19th century beginnings to contemporary trends. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ART 4   3.0 units
Tribal Art
3 hours lecture.
Grading: letter grade or credit/no credit
A survey of the painting, sculpture, architecture and crafts of Black Africa, Australia, Melanesia, Polynesia and Pre-Columbian North America. These traditions will be experienced through lectures, slides, movies, music and artifacts. The relationship of these areas to the mainstream of Western art will also be made. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ART 4H   3.0 units
Honors Tribal Art
3 hours lecture.
Prerequisite: Qualification for the Honors Program.
Grading: letter grade or credit/no credit
A survey of the painting, sculpture, architecture and crafts of Black Africa, Australia, Melanesia, Polynesia and Pre-Columbian North America. These traditions will be experienced through lectures, slides, movies, music and artifacts. The relationship of these areas to the mainstream of Western art also will be made. *Transfer*

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/analysis of individual art works. Designed for art majors and non-majors. *Transfer Status: Transferable to 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/analysis of selected works of art. *Transfer Status: Transferable to 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 cultural 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 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, 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 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

An overview of basic drawing fundamentals including the use of color, form and design with an emphasis on the expression of these principles through the use of a variety of drawing media. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ART   15   (CAN ART 8)   3.0 units
Beginning Drawing
2 hours lecture, 4 hours laboratory
Grading: letter grade or credit/no credit
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. *Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.*

ART   16AD   3.0 units
Intermediate Drawing
2 hours lecture, 4 hours laboratory
Prerequisite: ART 15
Grading: letter grade or credit/no credit
An advanced studio experience, emphasizing the employment of personal experiences as applied to 20th Century concepts and trends. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ART   17AD   3.0 units
Illustration I
2 hours lecture, 4 hours laboratory
Recommended Preparation: ART 15
Grading: letter grade or credit/no credit
Studio experience in the use of linear perspective to develop illustrative, realistic representation of three-dimensional objectives. Recommended for those interested in illustration and/or realistic representation. Offered fall semester only. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ART   18AD   3.0 units
Illustration II, Rendering
2 hours lecture, 4 hours laboratory
Recommended Preparation: ART 15 and 17AD
Grading: letter grade or credit/no credit
An intro to graphic techniques and aesthetic considerations of producing realistic representation. Offered spring semester only. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ART   19AD   3.0 units
Life Drawing
2 hours lecture, 4 hours laboratory
Recommended Preparation: ART 15
Grading: letter grade or credit/no credit
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. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ART   20AD   1.5 units
Life Drawing Overview
1 hour lecture, 2 hours laboratory
Prerequisite: ART 15
Grading: letter grade or credit/no credit
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.

Recommended for those interested in interpretative figure drawing, drawing and painting and art majors interested in transferring to a university. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ART   22AD   1.5 units
Painting Overview
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
A study of the fundamentals of form, color and design, emphasizing the expression of these principles through the painting media. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ART   23   (CAN ART 10)   3.0 units
Beginning Painting
2 hours lecture, 4 hours laboratory
Recommended Preparation: ART 15
Grading: letter grade or credit/no credit
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. *Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.*

ART   24   3.0 units
Watercolor, Beginning
2 hours lecture, 4 hours laboratory
Recommended Preparation: ART 15
Grading: letter grade or credit/no credit
Intro studio course offering an opportunity to explore and develop creative attitudes, values and personal expression in watercolor painting. Investigate unique techniques, methods and tools of the media. Emphasizes the elements and principles of two-dimensional composition in an imaginative, personal manner. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ART   25AD   3.0 units
Watercolor, Advanced
2 hours lecture, 4 hours laboratory
Prerequisite: ART 24
Grading: letter grade or credit/no credit
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. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ART   26AD   3.0 units
Figure Painting
2 hours lecture, 4 hours laboratory
Prerequisite: One semester of ART 19AD.
Recommended Preparation: ART 23
Grading: letter grade or credit/no credit
Individual interpretation and expression of the human figure with the emphasis on painting. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ART   27AD   3.0 units
Intermediate Painting
2 hours lecture, 4 hours laboratory
Prerequisite: ART 23
Grading: letter grade or credit/no credit

A continuing studio experience designed to take students with the basic skills of painting and introduce them to ideas, concepts and techniques leading to personal expression, experimental media and current trends in art. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

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 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 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 repousse. *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*

Status: Transferable to UC/CSU, see counselor for limitations.

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. Course articulated with LBUSD.*

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
Recommended Preparation: 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: ART51AD
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 56AB   **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 photo-silkscreen. *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*

Status: Transferable to UC/CSU, see counselor for limitations.

ART 72AD 3.0 units

Printmaking, Advanced
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 1.5 units

Introduction to Printmaking
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 1.5 units

Advanced Printmaking Overview
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) 3.0 units

Elements of Photography
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 3.0 units

Introduction to Fine Art Photography
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 1.0 unit

Special Projects In Art
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 2.0 units

Studio Projects in Art
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 CSU, see counselor for limitations.*

ART 96AD 1.5 units

Fiber, Beginning
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 CSU, see counselor for limitations.*

ART 97AD 1.5 units

Fiber, Advanced
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 CSU, see counselor for limitations.*

ART 292 3.0 units

Professional Skills for Artists
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, crating and shipping artwork, art competitions, exhibitions, criticism, publicity and slide presentations. Topics include ethics, law, professionalism and grant-writing.

ART 600 0.0 units

Two-Dimensional Art Exploration
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 0.0 units

Three-Dimensional Art Exploration
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 0.0 units

Specialty/Technical Art Exploration
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 principles involving: 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, refinish 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.

AMECH 270AD 1.0 unit
Work Experience Issues — Automotive
1 hour lecture.
Corequisite: Enrollment in at least seven units including AMECH271AD, 272AD or 273AD and 270AD.
Grading: letter grade or credit/no credit
Seminar related to vocational learning experiences through employment in work experience directly related to the automotive industry. Discussions about work experience objectives, career goals, employment adjustment and problem areas encountered on the job.

AMECH 271AD 1.0 unit
Work Experience — Automotive
4.1 hours laboratory
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 272AD 2.0 units
Work Experience — Automotive
8.3 hours laboratory
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 3.0 units
Work Experience — Automotive
12.5 hours laboratory
Corequisite: Enrollment in at least seven units including AMECH270AD and 273AD.
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 2.0 units
Special Problems: Automotive
2 hours lecture.
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 2.0 units
Special Problems: Automotive
2 hours lecture.
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 2.0 units
Special Problems: Automotive
2 hours lecture.
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 2.0 units
Special Problems: Automotive
2 hours lecture.
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 vehicle.

AMECH 421 3.0 units
Auto Mechanics 1
2 hours lecture, 3 hours laboratory
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 3.0 units
Auto Air Conditioning
2 hours lecture, 3 hours laboratory
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 3.5 units
Clean Air Car
2.9 hours lecture, 1.5 hours laboratory
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 6.0 units
Auto Wheel Alignment
5 hours lecture, 3 hours laboratory
Recommended Preparation: 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 6.0 units
Automotive Brake Systems
5 hours lecture, 3 hours laboratory
Recommended Preparation: 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 6.0 units
Engine Repair
5 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit

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.

AMECH 436   6.0 units
Automatic and Standard Transmissions
5 hours lecture, 3 hours laboratory
Recommended Preparation: High school auto or AMECH421
Grading: letter grade or credit/no credit
Covers construction, operation, maintenance, adjustment and overhaul of manual and automatic transmissions. Individualized self-paced instruction is used.

AMECH 438   6.0 units
Auto Emission Controls
5 hours lecture, 3 hours laboratory
Recommended Preparation: High school auto mechanics or AMECH421
Grading: letter grade or credit/no credit
Covers the California State approved "Clean Air Course," as well as preparation for the California Inspection and Maintenance Emission Control License. Also, covers operation and testing of computer-controlled oxygen feedback systems and use of the California State approved Test Systems Analyzer (TAS).

AMECH 440   6.0 units
Automotive Computer Systems
5 hours lecture, 3 hours laboratory
Recommended Preparation: AMECH421
Grading: letter grade or credit/no credit
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.

AMECH 442   6.0 units
Automotive Fuel Systems
5 hours lecture, 3 hours laboratory
Recommended Preparation: AMECH421
Grading: letter grade or credit/no credit
Covers the testing and repair 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.

AMECH 444   6.0 units
Automotive Electrical Systems
5 hours lecture, 3 hours laboratory
Recommended Preparation: AMECH421
Grading: letter grade or credit/no credit
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.

AMECH 480   3.0 units
Introduction to Electric Vehicles
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit

Overview of the world of electric vehicle conversions. 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.

AMECH 481   3.0 units
Advanced Electric Vehicles
2 hours lecture, 3 hours laboratory
Grading: credit/no credit
Furthers skills in electric vehicle (EV) conversions and an intro to advanced EV designs and propulsion systems. Will work with hybrids, A.C. drive systems and advanced design electric vehicles. Includes the EV design and construction, the testing, assembly, operation and maintenance of EVs; the influence of aerodynamic design; advanced technology batteries and intelligent charging systems; hydrogen fuel cell technology and alternative EV drive systems. Appropriate safety related instruction will be included in each segment.

AMECH 483   3.0 units
Electric Vehicle Projects
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
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.

AMECH 490   3.5 units
Introduction to Alternative Fuels
3 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
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.

AMECH 491   3.5 units
Heavy Duty Alternative Fuels
3 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
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.

AMECH 492   3.5 units
H D Alt Fuel Engine Diagnosis & Repair
3 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit

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

Recommended Preparation: AVMNT251
Grading: letter grade.
Partially fulfills the requirements stated in FAR 147.
Includes safety, ignition systems, fuel metering systems, propellers-A, engine fuel systems, induction systems, engine cooling, mechanic privileges and limitations, maintenance forms and records, ground operation, aircraft drawings and aircraft instruments.

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 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.

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 fuel metering systems, propellers "A," ground operation and aircraft drawings.

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, induction systems, aircraft instruments and 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 instrument systems, propellers "B," communication and navigation systems.

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.

AVIATION PILOT

AVPLT 49   1.0 unit

Professional Pilot Career Orientation
1 hour lecture.
Grading: credit/no credit

Covers career orientation for prospective professional pilots. Surveys major airlines, commuter airlines, corporate, flight instruction, work operation, military aviation and other pilot careers. Covers historical hiring patterns, the hiring cycle, employment outlook, pay scales and career preparation, physical and medical considerations, work schedules and other working conditions, employee benefits and career progression. *Transfer Status: Transferable to CSU, see counselor for limitations.*

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. *Transfer Status: Transferable to CSU, see counselor for limitations.*

AVPLT 51   3.0 units

Commercial Ground School
3 hours lecture
Recommended Preparation: AVPLT50 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, AVPLT51, plus either AVPLT50 or 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: AVPLT50 or FAA private pilot certificate. Helpful but not necessary to have completed AVPLT51 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: AVPLT50 or FAA private pilot certificate.
Grading: letter grade or credit/no credit
Covers pilotage, 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 3.0 units
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 3.0 units
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-shooting 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 2.0 units
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 2.0 units
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 2.0 units
Advanced Simulator Flight Training
1 hour lecture, 3 hours laboratory
Recommended Preparation: AVPLT61 or FAA private pilot certificate.
Grading: credit/no credit
Partial preparation for the FAA Instrument Rating - Airplane practical exam, using FAA approved flight training devices (simulators). Provides pilot experience to partially satisfy the forty hour requirement in FAR 61.65 (d). Departure, enroute and instrument approach procedures. Radio communication air traffic control and IFR clearance copying. Complex aircraft operation.

Transfer Status: Transferable to CSU, see counselor for limitations.

AVPLT 63AD 2.0 units
Commercial Pilot-Single Engine Simulator
1 hour lecture, 3 hours laboratory
Recommended Preparation: AVPLT 62AD or instrument rating
Grading: credit/no credit
Flight simulator characteristics and operation, clearance copying, radio communication, air traffic control, transponder, departure, enroute and instrument approach procedures, complex aircraft operation, air traffic control radar, instrument approach facilities and emergency procedures. Note: not an instrument ground school course. *Transfer Status: Transferable to CSU, see counselor for limitations.*

AVPLT 65AD 2.0 units
Commercial Pilot Multi-Engine Simulator
1 hour lecture, 3 hours laboratory
Prerequisite: A private pilot FAA certificate with instrument rating (ASEL).
Grading: credit/no credit
Partial preparation for private pilot-airplane (multi-engine) flight test. Uses an ATC 810 multi-engine simulator (ground trainer). *Transfer Status: Transferable to CSU, see counselor for limitations.*

AVPLT 66AD 2.0 units
Airline Transport Pilot Multi-Eng. Sim
1 hour lecture, 3 hours laboratory
Prerequisite: A commercial pilot FAA certificate with instrument rating (AMEL).
Grading: credit/no credit
Partial preparation for airline transport pilot-airplane (multi-engine) flight test. Also useful for preparing for initial and recurrent flight checks required in FAR 135.297. Includes an intro to "cockpit resources management." Uses an ATC 810 multi-engine simulator (ground trainer) similar to the Piper Navajo. *Transfer Status: Transferable to CSU, see counselor for limitations.*

AVPLT 71 3.0 units
Flight & Ground Instructor
3 hours lecture
Recommended Preparation: AVPLT51 or passing score on the FAA commercial pilot written exam.
Grading: letter grade or credit/no credit
Provides preparation for FAA flight instructor written and oral exams and the FAA ground instructor written exams. Review of knowledge required for private and commercial pilot certificate. *Transfer Status: Transferable to CSU, see counselor for limitations.*

AVPLT 74 6.0 units
Transport Category Jet Aircraft Systems
6 hours lecture
Recommended Preparation: FAA Commercial Pilot Certificate with instrument rating.
Grading: letter grade or credit/no credit
FOR PILOTS AND FLIGHT ENGINEERS. An in-depth study of systems for transport category jets operated under FAR Part 121. Also includes related FAR Part 121, aerodynamics, meteorology, weight and balance and aircraft performance. Prepares for the FAA Flight Engineer-Basic and Turbojet knowledge exam and prepares for airline new hire ground schools.

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   11   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   31   2.0 units

Birds
1.5 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
An intro to the identification and recognition of the birds of Southern California. Emphasizes field identification. Habitats, behaviors, songs, migratory patterns, ecology and natural history will be stressed. Includes at least three field trips. *Transfer Status: Transferable to 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. Offered spring semester. *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. Emphasizes how these organisms adapt to estuarine conditions. Historical and political background of the Bay will be discussed as it pertains to that particular environment. *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

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. Orients 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
Recommended Preparation: CABMK201 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.

CARP   213   **10.0 units**

Carpentry 3
5 hours lecture, 15 hours laboratory
Prerequisite: CARP 212
Grading: letter grade or credit/no credit
Safety, roof framing, exterior covering and finish, interior finishing and stairway finishing are included, as well as field trips and special projects.

CARP   214   **10.0 units**

Carpentry 4
5 hours lecture, 15 hours laboratory
Prerequisite: CARP 213
Grading: letter grade or credit/no credit
Safety, reinforced concrete form construction, heavy timber construction, millwrights and review of trade math are included, as well as field trips and special projects.

CARP   250   **5.5 units**

Pre-Apprenticeship Training
3 hours lecture, 9 hours laboratory
Grading: letter grade or credit/no credit
Comprehensive preparation for students to enter a variety of apprenticeship programs related to construction trades. Includes safe use of hand tools, blueprint reading, requirements of apprenticeship programs, employer expectations and hands-on experience in technical areas including form work, cement work, electrical and plumbing.

CARP   415A   **2.0 units**

Home Remodeling and Repair
1 hour lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Construction safety, hand tools, power tools and special tools. How to plan and lay out for a new kitchen, bath and room addition. How to obtain building permits. Learn the latest building code requirements for plumbing, electrical, framing and heating and cooling. Learn the uses of the builders level and transit for laying out lots and new additions. Specifications and drawings, footings and foundations, floor construction, carpeting, tile and parquet floors. How to install drywall.

CARP   415B   **2.0 units**

Home Remodeling and Repair
1 hour lecture, 3 hours laboratory
Prerequisite: CARP 415A
Grading: letter grade or credit/no credit
Learn setting of forms for porches, patios and sidewalks and stripping of foundation walls. Wall coverings, paneling and moldings, tile board for tub and shower areas, installation of acoustical tile with and without ceiling suspension and preparing surfaces for painting and varnishing. Roof framing, types of roofs, materials and how to install a new roof and repair the old one are included.

CARP   415C   **2.0 units**

Home Remodeling and Repair
1 hour lecture, 3 hours laboratory
Prerequisite: CARP 415B
Grading: letter grade or credit/no credit
Learn installation of brick and stone for decorating purposes, stucco and stucco repairs, energy conservation types of material and calculating quantity for exterior and interior installations. Installation of sewer lines, floor and wall plumbing and minor repairs of bathroom 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.

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, carbonyl 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 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 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 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 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 CSU, see counselor for limitations.*

CDECE 40 3.0 units

Infant Development & Educaring D4
3 hours lecture.
Grading: letter grade.

Courses of Instruction

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 47 (CAN HEC 14) 3.0 units
Human Development
3 hours lecture.
Grading: letter grade or credit/no credit
A study of emotional, intellectual and physical growth patterns from conception to death. Theories of development are studied as an integrated approach to each phase of life. Meets the State of California requirement for teaching nursery school and the prerequisite for entrance into the nursing program. Not open for credit to students registered in or with credit in CDECE45. *Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.*

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
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 56 2.0 units
Creative Movement for Young Children D3
2 hours lecture.
Grading: letter grade or credit/no credit
Principles and methods of developing motor skills and providing creative experiences in body movement and dance for young children. *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.

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: CDECE 45 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 CDECE71AD, 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. 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 CDECE70AD and 71AD.
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.

CDECE   800C   **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   800D   **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.

CHILD DEVELOPMENT, FAMILY DAY CARE

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.

CHILD DEVELOPMENT, LEARNING LAB

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.*

CDLL 51B   **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.*

CDLL 51C   **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.*

CDLL 51D   **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.*

CDLL 52A   **2.0 units**
Preschool Child Techniques
1 hour lecture, 4 hours laboratory
Grading: letter grade or credit/no credit
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. *Transfer Status: Transferable to CSU, see counselor for limitations.*

CDLL 52B   **2.0 units**
Preschool Child Techniques
1 hour lecture, 4 hours laboratory
Grading: letter grade or credit/no credit
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 a fingerprint clearance to participate. *Transfer Status: Transferable to CSU, see counselor for limitations.*

CDLL 52C   **2.0 units**
Preschool Child Techniques
1 hour lecture, 4 hours laboratory

Grading: letter grade or credit/no credit
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 a fingerprint clearance to participate. *Transfer Status: Transferable to CSU, see counselor for limitations.*

CDLL 52D   **2.0 units**
Preschool Child Techniques
1 hour lecture, 4 hours laboratory
Grading: letter grade or credit/no credit
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 a fingerprint clearance to participate. *Transfer Status: Transferable to CSU, see counselor for limitations.*

CDLL 91AD   **2.0 units**
Special Studies
1 hour lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Exploration and development on an individual basis of special projects within the child development field. 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.*

CDLL 231A   **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 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 231B   **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 fingerprint clearance to participate.

CDLL 231C   **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 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 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 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 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 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 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. 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.

CDPE   406A   3.0 units
Foster Care Education for Foster Parents
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.

CDPE   406A2   1.0 unit
Foster Care Education for Foster Parents
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.

CDPE   406A3   1.5 units
Foster Care Education for Foster Parents
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.

CDPE   406A4   1.0 unit
Foster Care Education for Foster Parents
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.

CDPE   406A5   1.0 unit
Foster Care Education for Foster Parents
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.

CDPE   406A6   1.0 unit
Foster Care Education for Foster Parents
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.

CDPE   406A7   1.0 unit
Foster Care Education for Foster Parents
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.

CDPE   605   0.0 units
Parenting Skills
1 hour lecture.
Grading: no grade awarded
A study of parent/child relationships.

CDPE   606   0.0 units
Parent Education for Foster Parents
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.

CHILD DEVELOPMENT, SCHOOL AGE

CDSA   62   2.0 units
Creative Express for School Age Children
2 hours lecture.
Grading: letter grade or credit/no credit
A study of principles, methods and materials which will encourage creative expression in school children. *Transfer Status: Transferable to CSU, see counselor for limitations.*

CDSA   63   3.0 units
The School Age Child
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.*

CDSA   65   3.0 units
School Age Curriculum
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.*

CDSA   75   3.0 units
School Age Child Care Practicum D5
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.*

CHILD DEVELOPMENT, SPECIAL EDUCATION

CDSED   5   3.0 units
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

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 psycholofy 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 PROFICIENCES 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 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 qualificatioin 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 CSU, see counselor for limitations.*

CBIS 14A   **3.5 units**

Computer Programming/JAVA
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.

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 Comp

TIA 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   3.5 units
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   1.0 unit
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   1.0 unit
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   1.5 units
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   4.0 units
Visual BASIC Programming
3 hours lecture, 3 hours laboratory
Prerequisite: .
Recommended Preparation: 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   4.0 units
Advanced Visual Basic Programming
3 hours lecture, 3 hours laboratory
Prerequisite: CBIS 208A
Recommended Preparation: CBIS 38
Grading: letter grade.
An 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   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   3.0 units
Novell Administration & Upgrades
2 hours lecture, 3 hours laboratory
Recommended Preparation: CBIS 41
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   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   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

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 programming certification exam.

CBIS 222B   3.0 units

Advanced Java for Sun Certification II
2.5 hours lecture, 2 hours laboratory
Prerequisite: CBIS 222A
Corequisite: CBIS 38
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 " 0-210.

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 " 0-215.

CBIS 227   2.0 units

Windows 2000 Networking
2 hours lecture.
Prerequisite: CBIS 226
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 " 0-216.

CBIS 228   2.0 units

Windows 2000 Directory Services
2 hours lecture.
Prerequisite: CBIS 226
Grading: letter grade or credit/no credit
Learn to install, configure and administer Windows 2000 Directory Services. Prepare to take the MCSE Certification Exam " 0-217.

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 1
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

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 operatimg 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.*

CAOTC   34   **3.0 units**

Introduction to Computers & Applications
2 hours lecture, 3 hours laboratory
Recommended Preparation: CAOTT233, 200 or 200A
or type 25 wpm.
Grading: letter grade or credit/no credit
An opportunity to examine general principles and
applications of computers. Introduces computer
hardware, the concept of telecommunications and the
impact of computers upon society. Also, an intro to
micro-computer application software currently being
used in business. *Transfer Status: Transferable to CSU,
see counselor for limitations.*

CAOTC   35   **3.0 units**

Microsoft Office
2.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: CAOTC39A AND 41E
Grading: letter grade or credit/no credit
Develop skill in producing documents by using
integration techniques in application software.
Hands-on practice creating, editing, linking and
transferring data between applications. Practice in
electronic mail. *Transfer Status: Transferable to CSU,
see counselor for limitations.*

CAOTC   39A   **1.0 unit**

Microsoft Word for Office, 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 Microsoft Word.
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 speller and
Thesaurus. *Transfer Status: Transferable to CSU, see
counselor for limitations.*

CAOTC   39B   **1.0 unit**

Microsoft Word for Office, Intermediate
1 hour lecture, 1 hour laboratory
Recommended Preparation: CAOTC39A (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. *Transfer Status: Transferable to CSU, see
counselor for limitations.*

CAOTC   39C   **1.0 unit**

Microsoft Word for Office, Advanced
1 hour lecture, 1 hour laboratory
Recommended Preparation: CAOTC39B (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),
graphics, graphic elements, columns, tables and
incorporating Web information into a document.
*Transfer Status: Transferable to CSU, see counselor for
limitations.*

CAOTC   39D   **1.0 unit**

Microsoft Word for Office, Expert
1 hour lecture, 1 hour laboratory
Recommended Preparation: CAOTC39C (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 Word and wish to
learn and utilize Word expert shortcuts. Helps increase
efficiency, reinforces advanced skills and teaches the
following: sorting and extracting text, using styles and
creating outlines, indexes, lists and table of contents.
*Transfer Status: Transferable to CSU, see counselor for
limitations.*

CAOTC   41E   **1.0 unit**

Excel for Windows-Beginning
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
Intro to spreadsheet software for the office using
Microsoft Excel on PCs. Through hands-on practice,
create, enhance, design, sort and print spreadsheets.
*Transfer Status: Transferable to CSU, see counselor for
limitations.*

CAOTC   41F   **1.0 unit**

Excel for Windows-Intermediate
0.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: CAOTC41E (may be taken
concurrently)
Grading: letter grade or credit/no credit
Continuation of CAOTC41E. Through hands-on
practice, learn to use the spreadsheet software's database
functions, develop macros and print reports. *Transfer
Status: Transferable to CSU, see counselor for
limitations.*

CAOTC   41J   **1.0 unit**

Excel for Windows-Advanced
0.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: CAOTC41F
Grading: letter grade or credit/no credit
Continuation of CAOTC41F. Through hands-on
practice, learn to work with financial functions, create
and enhance charts, work with multiple worksheets and
perform advanced printing functions. *Transfer Status:
Transferable to CSU, see counselor for limitations.*

CAOTC   42A   **1.0 unit**

Desktop Publishing-Small Business 1
0.5 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
Beginning desktop publishing functions used with PCs
in the home and office. Through hands-on practice, learn
to create professional-looking publications (stationery,
business cards, calendars, brochures, flyers, newsletters,
etc.). See the class schedule for brand of software
offered. *Transfer Status: Transferable to CSU, see
counselor for limitations.*

CAOTC   42B   **1.0 unit**

Desktop Publishing-Small Business 2
0.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: CAOTC42A (may be taken
concurrently)
Grading: letter grade or credit/no credit
Advanced desktop publishing functions used with PCs in
the home and office to produce documents including
forms, brochures, booklets, labels and press releases.

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
Grading: letter grade or credit/no credit
An intro to desktop publishing software used with PCs in the office to produce business documents, including reports, brochures, newsletters, signs and flyers. See the class schedule for brand of software offered. 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 CAOTC43A. Through hands-on practice, learn to enter and edit text with various type sizes and styles, transfer text created with word 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 46C   **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 46D   **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 46E   **1.0 unit**

Independent Project — Telecommunications
0.5 hours lecture, 1.5 hours laboratory
Recommended Preparation: CAOTC31A

Grading: letter grade or credit/no credit
Advanced study using telecommunications 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 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.

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 courseware 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 courseware 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 for the Microsoft PowerPoint certification exam. Review all topics that appear in the guidelines for PowerPoint MOUS certification. MOUS certified courseware 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 courseware 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 difficuluty 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 litigation and federal cases, 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.

COMPUTER/TYPING/ KEYBOARDING

CAOTT 200 — 3.0 units

Beginning Typing/Keyboarding
2 hours lecture, 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/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/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.

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. Learn to promote the academic development and socialization of first year students, using a variety of techniques learned through lecture.and activities. Campus and community resources will be discussed and explored. *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   0.0 units
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   3.0 units
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   8.0 units
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 speciality dishes. Develop knowledge of nutrition, menu, supplies, hygiene and sanitation, safety practices and employer-employee relations.

CULINARY ARTS (FDSRV)

FDSRV 20   3.0 units
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   8.0 units
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 speciality dishes. Develop knowledge of nutrition, menu, supplies, hygiene and sanitation, safety practices and employer-employee relations.

FDSRV 201B   8.0 units
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 speciality dishes. Develop knowledge of nutrition, menu, supplies, hygiene and sanitation, safety practices and employer-employee relations.

FDSRV 204   5.0 units
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   5.0 units
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   5.0 units
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   5.0 units
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   11.5 units
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   11.5 units
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.

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

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
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.

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 DANCE3AB
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.

Transfer Status: Transferable to UC/CSU, see counselor for limitations.

DANCE   41/1   0.5 units
Dance Performance
2 hours laboratory
Corequisite: DANCE10AB 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: DANCE10AB 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: DANCE10AB 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: DANCE10AB or 11AB or 12AD or 15AB 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 Proced
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, ultra sound 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.*

RT   21   **2.0 units**
Applied Radiological Physics
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.*

RT   24   **3.0 units**
Radiation: Biology And Protection
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.*

RT   30   **3.0 units**
Positioning for General Diagnostic Rad
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.*

RT   31   **3.0 units**
Positioning for Cranial Radiography
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.*

RT   40A   **2.5 units**
Clinical Radiology
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.*

RT   40B   **6.0 units**
Clinical Radiology
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. Designed for students who are full-time in the Diagnostic Medical Imaging program. *Transfer Status: Transferable to CSU, see counselor for limitations.*

RT   40C   **6.0 units**
Clinical Radiology
1 hour lecture, 13 hours laboratory
Prerequisite: RT 40B
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. Typically offered for twelve weeks during the summer. Designed for students who are full-time in the Diagnostic Medical Imaging program. *Transfer Status: Transferable to CSU, see counselor for limitations.*

RT   40D   **11.0 units**
Clinical Radiology
1 hour lecture, 31 hours laboratory
Prerequisite: RT 40C
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. Designed for students who are full-time in the Diagnostic Medical Imaging program. *Transfer Status: Transferable to CSU, see counselor for limitations.*

RT   40E   **11.0 units**
Clinical Radiology
1 hour lecture, 31 hours laboratory
Prerequisite: RT 40D
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.*

RT   60   **3.0 units**
Radiologic Pathology
3 hours lecture.
Prerequisite: ANAT 41 and RT 11
Grading: letter grade.
An intro to the study of disease as it relates to radiologic technology. Includes causes, signs, symptoms and radiographic demonstration of common human diseases. Acquaints the student with various pathologic conditions and their impact on the radiographic process. *Transfer Status: Transferable to CSU, see counselor for limitations.*

RT   61   **2.0 units**
Fluoroscopy
2 hours lecture, 1 hour laboratory

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

Safety, troubleshooting, repair of all components that are used on a diesel engine. Maintenance of the total engine and service operations will be highlighted. Intro to spark ignited engines.

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

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, model space/paper space 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

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 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

Grading: letter grade.
An advanced course that requires knowledge of AC basic circuitry. Covers principle of alternating current, installation of devices in AC circuits and response of circuits to AC excitation. Lab work includes electrical measuring instruments, motors, transformers, basic industrial electronics and solid devices.

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 210A
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 1
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.*

ELTC   51B   **3.0 units**
Electronics Technology I
3 hours lecture.
Prerequisite: ELTC 51A
Corequisite: ELTC 51LB
Grading: letter grade.
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.*

ELTC   51L   **2.0 units**
Electronics Technology I Laboratory
6 hours laboratory
Corequisite: ELTC 51
Grading: letter grade.
Covers experiments and demonstrations selected to clarify the principles developed in ELTC 51. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ELTC   51LA   **1.0 unit**
Electronics Technology I Laboratory
3 hours laboratory
Corequisite: ELTC 51A
Grading: letter grade.
Covers experiments and demonstrations selected to clarify the principles developed in ELTC 51A. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ELTC   51LB   **1.0 unit**
Electronics Technology I Laboratory
3 hours laboratory
Corequisite: ELTC 51B
Grading: letter grade.
Covers experiments and demonstrations selected to clarify the principles developed in ELTC 51B. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ELTC   52   **6.0 units**
Electronics Technology II
6 hours lecture.
Prerequisite: ELTC 51 or 51B.
Corequisite: ELTC 52L
Grading: letter grade.
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.*

ELTC   52A   **3.0 units**
Electronics Technology II
3 hours lecture.
Prerequisite: ELTC 51 or 51B.
Corequisite: ELTC 52LA
Grading: letter grade.
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.*

ELTC   52B   **3.0 units**
Electronics Technology II
3 hours lecture.
Prerequisite: ELTC 52A
Corequisite: ELTC 52LB
Grading: letter grade.
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.*

ELTC   52L   **2.0 units**
Electronics Technology II Laboratory
6 hours laboratory
Corequisite: ELTC 52
Grading: letter grade.
Covers experiments and demonstrations selected to clarify the principles developed in ELTC 52. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ELTC   52LA   **1.0 unit**
Electronics Technology II Laboratory
3 hours laboratory
Corequisite: ELTC 52A
Grading: letter grade.
Covers experiments and demonstrations selected to clarify the principles developed in ELTC 52A. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ELTC   52LB   **1.0 unit**
Electronics Technology II Laboratory
3 hours laboratory
Corequisite: ELTC 52B
Grading: letter grade.
Covers experiments and demonstrations selected to clarify the principles developed in ELTC 52B. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ELTC   53   **6.0 units**
Solid-State Circuits
6 hours lecture.
Prerequisite: ELTC 52 or 52B
Corequisite: ELTC 53L
Grading: letter grade.
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.*

ELTC   53A   **3.0 units**
Solid-State Circuits
3 hours lecture.
Prerequisite: ELTC 52 or 52B.
Corequisite: ELTC 53LA
Grading: letter grade.
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.*

ELTC   53B   **3.0 units**
Solid-State Circuits
3 hours lecture.
Prerequisite: ELTC 53A

Corequisite: ELTC 53LB
Grading: letter grade.
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*.

ELTC   53L   **2.0 units**

Solid-State Circuits Laboratory
6 hours laboratory
Corequisite: ELTC 53
Grading: letter grade.
Covers experiments and demonstrations selected to clarify the principles developed in ELTC 53. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ELTC   53LA   **1.0 unit**

Solid-State Circuits Laboratory
3 hours laboratory
Prerequisite: ELTC 52 or 52B
Corequisite: ELTC 53A
Grading: letter grade.
Experiments and demonstrations selected to clarify the principles developed in ELTC 53A. *Transfer Status: Transferable to CSU, see counselor for limitation*s.

ELTC   53LB   **1.0 unit**

Solid-State Circuits Laboratory
3 hours laboratory
Corequisite: ELTC53B
Grading: letter grade.
Experiments and demonstrations selected to clarify the principles developed in ELTC 53B. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ELTC   54   **6.0 units**

Digital/Telecommunications Circuits
6 hours lecture.
Corequisite: ELTC 54L
Recommended Preparation: ELTC 53 or 53B
Grading: letter grade.
Theoretical and practical essentials of digital electronic circuits and an analysis of telecommunication circuits. Not open to students registered in or with credit in ELTC 54B. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ELTC   54A   **3.0 units**

Digital/Telecommunications Circuits
3 hours lecture.
Corequisite: ELTC 54LA
Recommended Preparation: ELTC 53 or 53B
Grading: letter grade.
Theoretical and practical essentials of digital electronic circuits and an analysis of telecommunication circuits. Not open to students registered in or with credit in ELTC 54. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ELTC   54B   **3.0 units**

Digital/Telecommunications Circuits
3 hours lecture.
Corequisite: ELTC 54LB
Recommended Preparation: ELTC 54A
Grading: letter grade.

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.*

ELTC   54L   **2.0 units**

Digital/Telecommunications Laboratory
6 hours laboratory
Corequisite: ELTC 54
Grading: letter grade.
Experiments and demonstrations selected to clarify the principles developed in ELTC 54. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ELTC   54LA   **1.0 unit**

Digital/Telecommunications Laboratory
3 hours laboratory
Corequisite: ELTC 54A
Grading: letter grade.
Covers experiments and demonstrations selected to clarify the principles developed in ELTC 54A. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ELTC   54LB   **1.0 unit**

Digital/Telecommunications Laboratory
3 hours laboratory
Corequisite: ELTC 54B
Grading: letter grade.
Covers experiments and demonstrations selected to clarify the principles developed in ELTC 54B. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ELTC   55   **6.0 units**

Microcomputer/Introduction to Robotics
6 hours lecture.
Corequisite: ELTC 55L
Recommended Preparation: ELTC 54 or 54B
Grading: letter grade.
Covers the 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.*

ELTC   55A   **3.0 units**

Microcomputer/Introduction to Robotics
3 hours lecture.
Corequisite: ELTC 55LA
Recommended Preparation: ELTC 54 or 54B
Grading: letter grade.
Covers the theoretical and practical essentials of microprocessors and digital communication circuits. Not open to students registered in or with credit in ELTC55. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ELTC   55B   **3.0 units**

Microcomputer/Introduction to Robotics
3 hours lecture.
Corequisite: ELTC 55LB
Recommended Preparation: ELTC 55A
Grading: letter grade.
Covers theoretical and practical essentials of microcomputers, interfacing devices and system troubleshooting. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ELTC   55L   **2.0 units**

Microcomputer/Intro to Robotics Lab
6 hours laboratory
Corequisite: ELTC 55
Grading: letter grade.
Through experiments and demonstrations, clarifies
principles developed in ELTC 55. *Transfer Status:
Transferable to CSU, see counselor for limitations.*

ELTC   55LA   **1.0 unit**

Microcomputer/Intro to Robotics Lab
3 hours laboratory
Corequisite: ELTC 55A
Grading: letter grade.
Through experiments and demonstrations, clarifies
principles developed in ELTC 55A. *Transfer Status:
Transferable to CSU, see counselor for limitations.*

ELTC   55LB   **1.0 unit**

Microcomputer/Intro to Robotics Lab
3 hours laboratory
Corequisite: ELTC 55B
Grading: letter grade.
Through experiments and demonstrations, clarifies
principles developed in ELTC 55B. *Transfer Status:
Transferable to CSU, see counselor for limitations.*

ELTC   56A   **2.0 units**

Robotics Technology
2 hours lecture.
Corequisite: ELTC 56LA
Grading: letter grade.
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.*

ELTC   56B   **2.0 units**

Robotics Technology
2 hours lecture.
Corequisite: ELTC 56LB
Grading: letter grade.
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.*

ELTC   56C   **2.0 units**

Robotics Technology
2 hours lecture.
Corequisite: ELTC 56LC
Grading: letter grade.
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.*

ELTC   56LA   **1.0 unit**

Robotics Technology Laboratory
3 hours laboratory
Corequisite: ELTC 56A
Grading: letter grade.

Covers experiments and demonstrations selected to
clarify the principles developed in ELTC 56. *Transfer
Status: Transferable to CSU, see counselor for
limitations.*

ELTC   56LB   **1.0 unit**

Robotics Technology Laboratory
3 hours laboratory
Corequisite: ELTC 56B
Grading: letter grade.
Covers experiments and demonstrations selected to
clarify the principles developed in ELTC 56. *Transfer
Status: Transferable to CSU, see counselor for
limitations.*

ELTC   56LC   **1.0 unit**

Robotics Technology Laboratory
3 hours laboratory
Corequisite: ELTC 56C
Grading: letter grade.
Covers experiments and demonstrations selected to
clarify the principles developed in ELTC 56. *Transfer
Status: Transferable to CSU, see counselor for
limitations.*

ELTC   201   **2.0 units**

Electronics I Laboratory
1 hour lecture, 3 hours laboratory
Grading: credit/no credit
Designed for beginning electronics technology majors
who wish to gain additional insight into the operational
analysis and testing of DC electronic circuits.

ELTC   202   **2.0 units**

Electronics II Laboratory
1 hour lecture, 3 hours laboratory
Grading: credit/no credit
For electronic technology students who wish to gain
additional insight into the operational analysis and
testing of AC electronic circuits.

ELTC   203   **2.0 units**

Electronics Circuits Laboratory
1 hour lecture, 3 hours laboratory
Grading: credit/no credit
For electronics 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.

ELTC   204   **2.0 units**

Telecommunications I Laboratory
1 hour lecture, 3 hours laboratory
Grading: credit/no credit
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.

ELTC   205A   **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 microcomputers, video image displays, digital
printers, microwave and radar transmission and
reception.

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 microcomputers, 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/RAPP, 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.

EMT   252AD   **1.0 unit**

Emergency Medical Tech I Refresher
1 hour lecture, 0.5 hours laboratory
Prerequisite: Current EMT-I certification
Grading: letter grade.
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.

ENGINEERING

ENGR   3A   **3.0 units**

Engineering Graphics
2 hours lecture, 4 hours laboratory
Prerequisite: MATH 120 or high school geometry.
Recommended Preparation: One semester of DRAFT203AD or high school mechanical drawing or drafting.
Grading: letter grade.
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.*

ENGR   3B   (CAN ENGR 2)   **3.0 units**

Engineering Graphics
2 hours lecture, 4 hours laboratory
Prerequisite: ENGR 3A and MATH 40.
Grading: letter grade.
Review the principles of graphic expression through working drawings. Expand the principles of descriptive geometry as studied in ENGR 3A. Charts, diagrams and graphic solutions are discussed. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ENGR   17   (part of CAN ENGR 6)   3.0 units

Electrical Engineering Circuits
3 hours lecture.
Prerequisite: MATH 70; PHYS 3B
Grading: letter grade.
Intro to electrical circuit analysis including mesh and node equations, controlled sources, Thevenin and Norton equivalencies, step response of RLC circuits, phasor analysis and other topics. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ENGR   17L   (part of CAN ENGR 6)   1.0 unit

Electrical Engineering Circuits Lab
3 hours laboratory
Prerequisite: ENGR 17 (may be taken concurrently)
Grading: letter grade.
Lab study of electrical circuits and instrumentation. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ENGR   35   (CAN ENGR 8)   **3.0 units**

Statics
3 hours lecture.
Prerequisite: PHYS 3A and MATH 70.
Grading: letter grade.
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.*

ENGR   50   **1.0 unit**

Introduction to Engineering
1 hour lecture.
Grading: credit/no credit
Intro to engineering concepts, practicing engineers and the various branches of engineering. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ENGR   54   **3.0 units**

Computer Methods
3 hours lecture.
Prerequisite: MATH 60 (may be taken concurrently).
Grading: letter grade or credit/no credit
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.*

ENGLISH

ENGL   1   (CAN ENGL 2)   **3.0 units**

Reading and Composition
4 hours lecture.
Prerequisite: Qualify through the English assessment process, which must be completed before registration, or ENGL 105 or ESL 34.
Grading: letter grade.
Expository and persuasive writing based on college-level reading, research and critical thinking. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ENGL   1H   **3.0 units**

Honors Reading and Composition
4 hours lecture.
Prerequisite: Qualify through the English assessment process, which must be completed before registration or ENGL 105 or ESL 34. Qualification for the Honors Program.
Grading: letter grade.
Expository and persuasive writing based on college-level reading, research and critical thinking. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ENGL   2   (CAN ENGL 4)   **3.0 units**

Introduction to Literature/Composition
3 hours lecture.
Prerequisite: ENGL 1 or 1H
Grading: letter grade or credit/no credit
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.*

ENGL   3   **4.0 units**

Argumentative and Critical Writing
4 hours lecture.
Prerequisite: ENGL 1
Grading: letter grade or credit/no credit

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: 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.*

ENGL   30   **3.0 units**

Horror and Terror Fiction
3 hours lecture.
Prerequisite: Eligibility for ENGL 1
Grading: letter grade or credit/no credit
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.*

ENGL   32   **3.0 units**

Masterpieces/Asian Literature (In Engl)
3 hours lecture.
Prerequisite: Eligibility for ENGL 1.
Grading: letter grade or credit/no credit
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.*

ENGL   33   **3.0 units**

Mythology
3 hours lecture.
Prerequisite: Eligibility for ENGL 1.
Grading: letter grade or credit/no credit
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.*

ENGL   35   (CAN ENGL 18)   **3.0 units**

Interpreting the Short Story
3 hours lecture.
Prerequisite: Eligibility for ENGL 1
Grading: letter grade or credit/no credit
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.*

ENGL   36   **3.0 units**

The Novel
3 hours lecture.
Prerequisite: Eligibility for ENGL 1
Grading: letter grade or credit/no credit
Read, discuss and analyze representative English, American and Continental novels. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ENGL   37   **3.0 units**

Science Fiction, Fantasy and Horror
3 hours lecture.
Prerequisite: Eligibility for ENGL 1
Grading: letter grade or credit/no credit
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.*

ENGL   38   **3.0 units**

The Bible as Lit: The Old Testament
3 hours lecture.
Prerequisite: Eligibility for ENGL 1.
Grading: letter grade or credit/no credit
An examination and analysis of the narratives, poetry, essays and teachings of the Old Testament, emphasizing a literary point of view. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ENGL   39   **3.0 units**

The Bible as Lit: Apocrypha/New Testmnt
3 hours lecture.
Prerequisite: Eligibility for ENGL 1.
Grading: letter grade or credit/no credit
An examination and analysis of the narratives, poetry, essays and teachings of the New Testament and Apocrypha, emphasizing a literary point of view. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ENGL   41   (CAN ENGL 14)   **3.0 units**

American Literature I
3 hours lecture.
Prerequisite: Eligibility for ENGL 1.
Grading: letter grade or credit/no credit
A survey of American literature from the colonial period to the Civil War. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ENGL   42   (CAN ENGL 16)   **3.0 units**

American Literature II
3 hours lecture.
Prerequisite: Eligibility for ENGL 1
Grading: letter grade or credit/no credit
A survey of American literature from the Civil War to the present. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ENGL   43A   **3.0 units**

Introduction to Shakespeare
3 hours lecture.
Prerequisite: Eligibility for ENGL 1
Grading: letter grade or credit/no credit
Reading, discussion and analysis of seven plays and selected poems. Presentation of Shakespeare as a major literary figure in the context of the Elizabethan period and the history of English literature. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ENGL   43B   **3.0 units**

Introduction to Shakespeare
3 hours lecture.
Prerequisite: Eligibility for ENGL 1.
Grading: letter grade or credit/no credit
Reading, discussion and analysis of seven plays and selected poems. Presentation of Shakespeare as a major literary figure in the context of the Elizabethan period and the history of English literature. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ENGL   44   **3.0 units**

Literature of the Western World I
3 hours lecture.
Prerequisite: Eligibility for ENGL 1.
Grading: letter grade or credit/no credit
A survey of the historical development of western literature from classical times to the Renaissance, reflecting philosophical, political and artistic changes in

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 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.*

ENGL   105   4.0 units
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.

ENGL   600   0.0 units
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.
+

ENGL   627   0.0 units
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.

ENGL   801A   4.0 units
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.

ENGL   801B   4.0 units
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

READ   82   3.0 units
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.*

READ   83   3.0 units
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.*

READ   84   3.0 units
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.*

READ   85   3.0 units
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.*

READ   880   3.0 units
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.

READ   881   3.0 units
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.

READ   882   3.0 units
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.

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 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 54   4.0 units
Effective Writing for ESL
6 hours lecture.
Prerequisite: 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 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 emphasis on coordination and subordination, leading to composition of coherent paragraphs incorporating the use of transitional devices. Writing assignments will be prepared using personal computers. *Transfer Status: Transferable to 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 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 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 CSU, see counselor for limitations.*

ESL 65   4.0 units
College Read/Listen for ESL Students
6 hours lecture.

Prerequisite: One semester of ESL 147AB and qualification through the ESL Department reading assessment process; or eligibility for ESL 56; or ESL 63.
Grading: letter grade or credit/no credit
College-level ESL power reading and listening. Emphasizes strategies for reading and lecture.comprehension, enhancement of critical reading, listening and note taking, the use of context, stems, affixes and dictionary to determine word meanings and interacting with text through writing. Intensive and extensive application primarily to academic oral and written text and to fiction (a novel). (Part of a sequence.)
Transfer Status: Transferable to CSU, see counselor for limitations.

ESL 146AB   2.0 units
Comprehensive Grammar I
6 hours lecture.
Prerequisite: ESL 645 or one semester of 845AB or placement by the college or ESL assessment process.
Recommended Preparation: One semester of ESL 812AB
Grading: letter grade or credit/no credit
The first of two courses which together constitute a comprehensive review of the basic grammar of English in its entirety, together with the presentation of more complex grammatical features and troublesome exceptions, for students who have mastered or nearly mastered the fundamentals of English. Provides an in-depth study of the grammatical features and basic sentence patterns of English which students must command in order to succeed in academic, college-level courses. Also includes the writing of multi-clause sentences and working with a variety of English idioms.

ESL 147AB   2.0 units
Comprehensive Grammar II
6 hours lecture.
Prerequisite: One semester ESL 146AB.
Recommended Preparation: One semester of ESL 814AB
Grading: letter grade or credit/no credit
Second in a series of two courses which together constitute a comprehensive review of the basic grammar of English in its entirety, together with the presentation of more complex grammatical features and troublesome exceptions, for students who have mastered or nearly mastered the fundamentals of English. Provides an in-depth study of the grammatical features and basic sentence patterns of English which students must command in order to succeed in academic, college-level courses. Also includes the writing of short, coherent, organized paragraphs and the writing of multi-clause sentences. Work with a variety of English idioms.

ESL 640   0.0 units
English for Everyday 0
6 hours lecture.
Grading: no grade awarded
First of a six-course series in the basics of English structure, with an emphasis on 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.

ESL 641   0.0 units
English for Everyday 1
6 hours lecture.

Prerequisite: ESL 640 or equivalent skills as determined by ESL placement process.
Grading: no grade awarded
Second of a six-course series in the basics of English structure, with an emphasis on 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.

ESL 642   0.0 units
English for Everyday 2
6 hours lecture.
Prerequisite: ESL 641 or equivalent skills as determined by ESL placement process.
Grading: no grade awarded
Third in a six-course series in the basics of English structure, with an emphasis on 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.

ESL 643   0.0 units
English for Everyday 3
6 hours lecture.
Prerequisite: ESL 642 or equivalent skills as determined by ESL placement process.
Grading: no grade awarded
Fourth of a six-course series in the basics of English structure, with an emphasis on 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.

ESL 644   0.0 units
English for Everyday 4
6 hours lecture.
Prerequisite: ESL 643 or equivalent skills as determined by the ESL placement process.
Grading: no grade awarded
Fifth of a six-course series in the basics of English structure, with an emphasis on 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.

ESL 645   0.0 units
English for Everyday 5
6 hours lecture.
Prerequisite: ESL 644 or equivalent skills as determined by ESL placement process.
Grading: no grade awarded
Sixth of a six-course series in the basics of English structure, with an emphasis on 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.

ESL 800AB   **0.5 units**

Basic ESL Reading
1.5 hours lecture.
Grading: credit/no credit
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 the passage.

ESL 801AB   **0.5 units**

Reading Skills for ESL Students
1.5 hours lecture.
Prerequisite: One semester of ESL 800AB.
Grading: credit/no credit
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 the passage.

ESL 802AB   **0.5 units**

Reading Skills for ESL Students
1.5 hours lecture.
Prerequisite: One enrollment in ESL 801AB
Grading: credit/no credit
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 the passage.

ESL 803AB   **0.5 units**

Reading Skills for ESL Students
1.5 hours lecture.
Prerequisite: One enrollment in ESL 802AB
Grading: credit/no credit
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.

ESL 804AB   **0.5 units**

Reading Skills for ESL Students
1.5 hours lecture.
Prerequisite: One enrollment in ESL 803AB
Grading: credit/no credit
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.

ESL 805AB   **0.5 units**

Reading Skills for ESL Students
1.5 hours lecture.
Prerequisite: One semester of ESL 804AB
Grading: credit/no credit
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.

ESL 806AB   **0.5 units**

Reading Skills for ESL Students
1.5 hours lecture.
Prerequisite: One semester of ESL 805AB
Grading: credit/no credit
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.

ESL 810AB   **1.0 unit**

Fundamentals of English Grammar
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
Emphasis is on the sentence patterns basic to English and multi-clause combinations of these, intro to grammatical terminology, explication of specific grammatically troublesome areas (focusing on trouble spots for ESL students at the intermediate level).

ESL 812AB   **0.5 units**

Reading for Information and Pleasure
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
Extracting essential information from passages of expository prose and/or learning to understand and appreciate prose works of English literature.

ESL 813AB   **0.5 units**

Conversation 2
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
Conversational practice through group discussions of current topics, practice in expressing feelings, opinions and ideas.

ESL 814AB   **0.5 units**

Composition for ESL Students
1.5 hours lecture.
Prerequisite: ESL 645, one semester of 845AB or equivalent skills as determined by the ESL or the college assessment process.
Grading: credit/no credit
Offers intermediate-level ESL students systematic instruction and practice in the construction of short connected series of sentences which state an opinion, describe a process, give information or instructions or report an experience. Learn to identify and write topic and supporting sentences and to organize their ideas.

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 getting and giving personal information, finding jobs, making introductions, family traditions, comparing US immigration over time, expressing wants, apologizing and career changes.

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 expression. Covers giving directions, neighbors working together to prevent crime, making suggestions, attitudes about time, describing past experiences, single parenting, making offers and adjusting to a new culture.

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 describing 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 0
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.

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 2
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 3
6 hours lecture.
Prerequisite: One semester of ESL 642/842AB or qualify through the ESL placement process.
Grading: credit/no credit
Fourth of 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 4
6 hours lecture.
Prerequisite: One semester of ESL 643/843AB or qualify through ESL placement process.
Grading: credit/no credit
Fifth of 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.

ESL 845AB   **1.0 unit**

Introduction to College English 5
6 hours lecture.
Prerequisite: One semester of ESL 644/844AB or qualify through the ESL placement process.
Grading: credit/no credit
Sixth of 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.*

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.

ENGLISH AS SECOND LANGUAGE—VOCATIONAL SURVIVAL

ESLVS 620   **0.0 units**

Voc English for Beginning ESL Students 1
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 2
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 3
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.

ESLVS   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.

ESLVS   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.

ESLVS   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

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.*

FACS 211A   3.0 units
College & Career Opportunities for Women
3 hours lecture.
Grading: letter grade or credit/no credit
A study of women's roles examining personal development and the educational and career opportunities available will be discussed.

FACS 211B   3.0 units
College & Career Opportunities for Women
3 hours lecture.
Grading: letter grade or credit/no credit
A study of women's roles examining personal development and the educational and career opportunities available will be discussed.

FACS 607   0.0 units
Living Skills for/Mentally Challenged
4 hours laboratory
Grading: no grade awarded
Develop skills and attitudes necessary to function as an active member of the community. Stresses development of social skills, leisure time activities and personal hygiene.

FACS 650   0.0 units
Special Topics in Consumer Education
3 hours lecture.
Grading: no grade awarded
Helps senior citizens function effectively as a consumer in today's marketplace. Topics include wise use of credit, money management, advertising, automotive buying and repair, landlord-tenant, warranties and consumer recourse.

FACS 664   0.0 units
Life Management
3 hours lecture.
Grading: no grade awarded
Helps senior citizens 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.

FACS 691   0.0 units
Basic Home Living Skills
6 hours laboratory
Grading: no grade awarded
Provides fundamentals of food preparation and service, nutrition, safety, sewing and related activities, personal hygiene and leisure-time activities.

FACS 864   3.0 units
Introduction to Life Management
3 hours lecture.
Grading: credit/no credit
An intro to life management skills including values clarification, goal setting, decision-making and time management. Offered as part of a learning community focusing on improving the student's level of basic skills.

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

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 an opportunity to design, illustrate, draft and construct sample 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 an 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 an 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 toiles 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
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.*

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
Critical viewing of fashion prediction and promotion services including Video Fashion Monthly, Video Fashion News, National Association of Men's Sportswear Buyers, California Apparel News, Fashion News Report and RTW Report.

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 airbrush 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**

Fash 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
An overview of fashion-related computer programs: Micromark/Acumark/PDS2000 Pattern Design, Grading and Marking System and Modability's Snap Fashion design and illustration.

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.

FILM

FILM 1   3.0 units
Introduction to Film
3 hours lecture.
Grading: letter grade or credit/no credit
Evaluation 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.*

FILM 10A   3.0 units
Explorations in Film 1
3 hours lecture.
Grading: letter grade or credit/no credit
Survey and critical analysis of the gangster genre and/or 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.*

FILM 10B   3.0 units
Explorations in Film 2
3 hours lecture.
Grading: letter grade or credit/no credit
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.*

FILM 10C   3.0 units
Explorations in Film 3
3 hours lecture.
Grading: letter grade or credit/no credit
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.*

FILM 10D   3.0 units
Explorations in Film 4
3 hours lecture.
Grading: letter grade or credit/no credit
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.*

FILM 11A   3.0 units
Film Art and Artists 1
3 hours lecture.
Grading: letter grade or credit/no credit
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.*

FILM 11B   3.0 units
Film Art and Artists 2
3 hours lecture.
Grading: letter grade or credit/no credit
Survey and critical analysis of film focusing on cinematic form: visual design, screenplay, cinematography, color, sound, musical score, editing and special effects. Lecture, film viewing, possible guest lecturers and possible field trips will be included. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

FILM 11C   3.0 units
Film Art and Artists 3
3 hours lecture.
Grading: letter grade or credit/no credit
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.*

FILM 11D   3.0 units
Film Art and Artists 4
3 hours lecture.
Grading: letter grade or credit/no credit
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.*

FILM 20AB   3.0 units
Fundamentals of Film Production
2 hours lecture, 4 hours laboratory
Prerequisite: FILM 1 (may be taken concurrently)
Grading: letter grade or credit/no credit
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.*

FILM 21AB   3.0 units
Intermediate Film Production
2 hours lecture, 4 hours laboratory
Prerequisite: One semester of FILM 20AB
Grading: letter grade or credit/no credit
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.*

FILM 35AD   4.0 units
Film Production Workshop
3 hours lecture, 4.5 hours laboratory
Prerequisite: One semester of FILM 20AB
Grading: letter grade or credit/no credit
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.*

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.

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.
An intro to fire service training methods emphasizing the use of occupational analysis, identifying training needs and training others to perform manipulative skills. Meets Fire Officer 1 requirements established by the State Board of Fire Services. *Transfer Status: Transferable to CSU, see counselor for limitations.*

FIRE   10B   2.0 units
Fire Instructor 1B
2.2 hours lecture.
Grading: letter grade.
A seminar on fire service training techniques, emphasizing how to teach technical skills and evaluate teaching. 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 information on fire origin and cause, evidence preservation, prosecution of arson cases, maintaining records and dealing 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   16B   2.0 units
Fire Investigator 1B
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

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, extrication 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.*

FIRE   240AD   **0.5 units**

Firefighter I Physical Agility
0.2 hours lecture, 0.9 hours laboratory
Grading: letter grade or credit/no credit
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.

FIRE   242C   **2.0 units**

Fire Management 2C
2.2 hours lecture.
Grading: letter grade.
Designed to provide insight into personnel and labor
relations. Meets state fire marshal certification
requirements. Designed as service training for fire
professionals.

FIRE   250   **9.0 units**

Basic Fire Service Training
15.5 hours lecture, 7.7 hours laboratory
Grading: credit/no credit
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.

FIRE   270AD   **1.0 unit**

Work Experience Issues — Fire Science
1 hour lecture.
Corequisite: Enrollment in at least seven units including
FIRE 271AD, 272AD or 273AD and 270AD.
Grading: letter grade or credit/no credit
A seminar related to work experience, discussing job-
related learning objectives, career goals, employment
search, communication skills and problem solving.

FIRE   271AD   **1.0 unit**

Work Experience — Fire Science
4.1 hours laboratory
Corequisite: Enrollment in at least seven units including
FIRE 270AD and 271AD.
Grading: letter grade or credit/no credit
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.

FIRE   272AD   **2.0 units**

Work Experience — Fire Science
8.3 hours laboratory
Corequisite: Enrollment in at least seven units including
FIRE 270AD and 272AD.
Grading: letter grade or credit/no credit
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.

FIRE   273AD   **3.0 units**

Work Experience — Fire Science
12.5 hours laboratory
Corequisite: Enrollment in at least seven units including
FIRE 270AD and 273AD.
Grading: letter grade or credit/no credit
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.

FIRE   400A   **1.0 unit**

Special Topics in Fire Science
1 hour lecture, 1 hour laboratory
Grading: credit/no credit
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 interest and
needs of fire protection specialists. Modules are
designed to meet the criteria specified in NFPA
standards. Repeated enrollment authorized.

FIRE   400B   **2.0 units**

Special Topics in Fire Science
2 hours lecture, 2 hours laboratory
Grading: credit/no credit
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.

FIRE   400C   **3.0 units**

Special Topics in Fire Science
3 hours lecture, 3 hours laboratory
Grading: credit/no credit
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.

FIRE   400D   **3.0 units**

Special Topics in Fire Service
2 hours lecture, 3 hours laboratory
Grading: credit/no credit
A series of seminars designed to provide a 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.

FIRE   400E   **3.5 units**

Special Topics in Fire Service
2 hours lecture, 4.8 hours laboratory
Grading: credit/no credit
A series of seminars designed to provide a 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.

FIRE 400F — 5.0 units
Special Topics in Fire Science
3 hours lecture, 6.4 hours laboratory
Grading: credit/no credit
A series of seminars designed to provide a 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.

FOOD & BEVERAGE MANAGEMENT

THRFB 17 — 3.0 units
Introduction to Food and Beverage
3 hours lecture.
Grading: letter grade.
Includes orientation to food services operations, history of the industry, menu planning, food and beverage service, bar operations, budgeting, pre-control, operational analysis, equipment layout, selection and maintenance and industry safety. *Transfer Status: Transferable to CSU, see counselor for limitations.*

THRFB 18 — 3.0 units
Introduction to Culinary Preparation
3 hours lecture.
Grading: letter grade.
Provides the basic knowledge needed to understand and become skillful in basic food preparation and production while studying the science of why ingredients and procedures are used. Includes hot food preparation, cold food preparation (garde manager), baking, sanitation, proper storage and handling of foods and creative presentation of foods. *Transfer Status: Transferable to CSU, see counselor for limitations.*

THRFB 19 — 3.0 units
Food/Beverage Purchasing/Plan/Control
3 hours lecture.
Grading: letter grade.
Learn to develop and implement an effective purchasing program, focusing on issues pertaining to supplier relations and selection, negotiation and evaluation. Covers the principles and procedures involved in an effective food and beverage control system, including standards determination, the operating budget, cost-volume-profit analysis, income and cost control, menu pricing, labor cost control and computer applications. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

THRFB 27 — 3.0 units
Bar and Beverage Management
3 hours lecture.
Corequisite: THRH 273AD and 270AD.
Grading: letter grade.
Provides students with the practical knowledge needed to manage a bar or beverage operation for the small sole proprietor or bar and beverage service in a restaurant and/or hotel. Also presents principles and theories to support and reinforce the practical aspects. *Transfer Status: Transferable to CSU, see counselor for limitations.*

THRFB 32 — 3.0 units
Introduction to Catering Management
3 hours lecture.
Grading: letter grade.
Provides practical skills and knowledge for effective management of food and beverage catering in locations ranging from homes to restaurants, clubs, gardens, hotels, water craft and other sites. Discusses designing menus, food and beverage purchasing, storage, transport and sanitation, site inspections, equipment rentals, and hiring, training and managing a staff, while emphasizing the special needs of guests. *Transfer Status: Transferable to CSU, see counselor for limitations.*

FOOD & NUTRITION

F&N 20 (CAN HEC 2) — 3.0 units
Nutrition and Life
3 hours lecture.
Grading: letter grade or credit/no credit
An intro to the basic physiological, psychological, social and biochemical principles related to human nutrition. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

F&N 21 (CAN HEC 8) — 4.0 units
Food Selection and Meal Preparation
3 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
The knowledge and skills related to food selection and preparation, food product standards and the factors contributing to the quality of prepared food. *Transfer Status: Transferable to CSU, see counselor for limitations. Course articulated with LBUSD.*

F&N 26 — 1.0 unit
Nutrition for the Active Person
1 hour lecture.
Grading: letter grade or credit/no credit
Designed to assist the athlete and the prospective athlete in examining his or her special nutritional needs based upon current research. Emphasizes the nutritional needs of the athlete versus the non-athlete, improving athletic performance through nutrition and how to evaluate athletic diets, such as high protein diets, carbohydrate loading and pre-game meal. Not open for credit to students registered in or with credit in PEPP 79A. Typically offered for nine weeks. *Transfer Status: Transferable to CSU, see counselor for limitations.*

F&N 224 — 3.0 units
Sanitation, Safety and Equipment
3 hours lecture.
Grading: letter grade or credit/no credit
The application of basic safety and sanitation principles for a food service operation, the criteria used to evaluate equipment design and how to write equipment specifications.

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.
Techniques and 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   1.0 unit
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)   5.0 units
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 every-day 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)   3.0 units
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)   2.0 units
Elementary French 1B
2 hours lecture, 1 hour laboratory
Prerequisite: FREN 1A
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 every day 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)   5.0 units
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 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.*

FREN   2A (part of CAN FREN 4)   3.0 units
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. Reading and writing, based on modern topical materials are covered. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

FREN   2B (part of CAN FREN 4)   2.0 units
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)   5.0 units
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)   5.0 units
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   2.0 units
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 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
The study of 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.*

GEOGRAPHY

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
The study of the three interrelated parts of the hemisphere: air, water and land. *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 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.*

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
3 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 CSU, see counselor for limitations.*

GEOL   16   3.0 units
Field Techniques/Geol: So Calif Deserts
2 hours lecture, 3 hours laboratory

Prerequisite: GEOL 1, 2, or 5 (may be taken concurrently)
Grading: letter grade or credit/no credit
A study of rock and mineral deposits, faults and other features found in Southern California's deserts. Includes: map making, field and microscopic work. Two week-end field trips. Offered spring semester. *Transfer Status: Transferable to CSU, see counselor for limitations.*

GEOL 17   2.0 units
Geology of Southern California Deserts
1.5 hours lecture, 1.5 hours laboratory
Prerequisite: GEOL 1, 2, or 5 (may be taken concurrently)
Grading: letter grade or credit/no credit
Deals with the petrology, stratigraphy, structure and paleontology of Southern California deserts. Two weekend field trips. Offered spring semester. Not open to students with credit in GEOL 16. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

GEOL 18   3.0 units
Geology of California
3 hours lecture.
Grading: letter grade or credit/no credit
Outlines the basic principles of geology and the features and history of California's landscape through the exam of the rocks, minerals, fossils and tectonic events common in California. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

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. Course articulated with LBUSD.*

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, emphasizing listening and speaking, reading and writing, based on modern topical material. *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. *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

health education. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

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.*

HLED   10   3.0 units
Human Sexuality
3 hours lecture.
Grading: letter grade or credit/no credit
An intro to human sexual knowledge, attitudes and behaviors viewed from the biological, psychological, sociological, cultural, religious and historical perspectives. Provides three units of elective work in the health sciences or sociology. It does not take the place of HLED 2 or 3 which are required for the AA/AS degrees. Not open for credit to students registered in or with credit in PSYCH 10. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

HEATING/VENTILATION & AIR CONDITIONING

AC/R   211   10.0 units
Air Condition/Refrigeration Fundamentals
5 hours lecture, 15 hours laboratory
Grading: letter grade or credit/no credit
The beginning course of a four-semester program for persons wishing to become technicians in domestic and/or commercial air conditioning and refrigeration. Includes shop safety practices, terminology, pressure/temperature relationships, heat transfer, analysis of components and complete systems, employee and employer relationships and selected field trips.

AC/R   212   10.0 units
Electrical Theory/Component Applications
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   213   10.0 units
Psychrometrics Duct & Load Calculations
5 hours lecture, 15 hours laboratory
Prerequisite: AC/R 211 or 212
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   214   10.0 units
Troubleshoot Total Comfort Systems
5 hours lecture, 15 hours laboratory
Prerequisite: AC/R 213
Grading: letter grade or credit/no credit
Covers troubleshooting of both electrical and mechanical equipment, electrical and pneumatic controls, start up, operation and service.

AC/R   220   3.0 units
Refrigeration Fundamentals
2.5 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
A basic study of vapor compression refrigeration cycle and system components. Includes shop safety practices, terminology, pressure/temperature relations and heat transfer. System dehydration, recovery techniques, charging of refrigerants will also be covered. Reflects the current Environmental Protection Agency (EPA) requirements of Section 608 of the Clean Air Act of 1990.

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 psychometics 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.

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 220
Grading: letter grade or credit/no credit
Covers tools, equipment, refrigeration fundamentals, electrical systems, air distribution, installation and repair of automobile air conditioning. System dehydration, 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 dehydration, 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/Refrigeration
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, 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.

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.

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, establish- ment 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

teaching career in California. *Transfer Status: Transferable to UC/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.*

HORTICULTURE

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 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 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.*

HORT 26A — 3.0 units
Plant Propagation
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
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.*

HORT 26B — 3.0 units
Plant Propagation
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
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.*

HORT 28A — 3.0 units
Horticulture Equipment Operation (Fall)
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Learn to safely operate, maintain and perform minor repairs of two-cycle and four-cycle horticulture equipment, including gas and diesel engines and electric and pneumatic motors. *Transfer Status: Transferable to CSU, see counselor for limitations.*

HORT 28B — 3.0 units
Horticulture Equipment Operation (Spr)
2 hours lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
Learn to safely operate, maintain and perform minor repairs of two-cycle and four-cycle horticulture equipment, including gas and diesel engines and electric and pneumatic motors. *Transfer Status: Transferable to CSU, see counselor for limitations.*

HORT 30 — 3.0 units
Integrated Pest Management
3 hours lecture.
Grading: letter grade or credit/no credit
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.*

HORT 202AB — 4.0 units
Principles of Pruning
2 hours lecture, 6 hours laboratory
Grading: letter grade or credit/no credit
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.

HORT 223AD — 4.0 units
Landscape Construction
2 hours lecture, 6 hours laboratory
Grading: letter grade or credit/no credit
Develop a basic knowledge of the theory and application of soil preparation, equipment operation, planting, maintenance and hardscape techniques.

HORT 227A — 2.0 units
Interior Plant Design/Installation Fall
1.5 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
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.

HORT 227B — 2.0 units
Interior Plant Design/Maintenance Spring
1.5 hours lecture, 1.5 hours laboratory
Grading: letter grade or credit/no credit
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.

HORT 270AD — 1.0 unit
Work Experience Issues: Horticulture
1 hour lecture.
Corequisite: Enrollment in at least seven units including HORT 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.

HORT 271AD — 1.0 unit
Work Experience: Horticulture
4.1 hours laboratory
Corequisite: Enrollment in at least seven units including HORT 270AD and 271AD.
Grading: letter grade or credit/no credit
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.

HORT 272AD — 2.0 units
Work Experience: Horticulture
8.3 hours laboratory
Corequisite: Enrollment in at least seven units including HORT 270AD and 272AD.
Grading: letter grade or credit/no credit
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.

HORT 273AD — 3.0 units
Work Experience: Horticulture
12.5 hours laboratory
Corequisite: Enrollment in at least seven units including HORT 270AD and 273AD.
Grading: letter grade or credit/no credit
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.

HORT 430A — 4.0 units
Landscape Maintenance
3 hours lecture, 3 hours laboratory
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 430B   4.0 units
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, types of industrial and domestic applications are topics of discussion.

HORT 611   0.0 units
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   3.0 units
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   3.0 units
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   3.0 units
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   3.0 units
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-restaurateur 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   3.0 units
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   3.0 units
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   3.0 units
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   3.0 units
Hospitality Sales and Marketing
3 hours lecture.

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.

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 — 3.0 units
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 — 3.0 units
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 — 3.0 units
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 — 1.0 unit
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 — 1.0 unit
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 — 2.0 units
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 — 3.0 units
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 — 3.0 units
Human Connections in a Changing Society
3 hours lecture.
Grading: letter grade or credit/no credit
Designed to increase the level of integration between what we think we should be and what we are. Develop self-awareness and the ability to relate to others. A practical course through which the student may become a more authentic person and more effective as a helping person. Lecture.and discussion will be supplemented by many opportunities for practical experiences in applying the concepts learned.

HS 226 — 3.0 units
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 with development of a student resources list.

HS 228 — 3.0 units
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.

HS 241   **3.0 units**

Introduction to Chemical Dependency
3 hours lecture.
Grading: letter grade.
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.

HS 243   **3.0 units**

Case Management: Treatment & Aftercare
3 hours lecture.
Grading: letter grade.
Examine ways to conduct initial intake assessment, orientation to various treatment programs and terms for termination. Clients' rights and stages of recovery from alcohol and drug dependencies will also be studied. 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.

HS 245   **3.0 units**

Stress Mgmt for the Helping Professional
3 hours lecture.
Grading: letter grade.
Examines various ways that professionals in the helping services experience stress. Students' personal limitations will be explored. Learn to prevent burnout and skills that will increase students' ability to help others. Emphasizes strategies to promote personal growth. Designed for persons interested in the human services/helping professions.

HS 246   **3.0 units**

Physiological Effects of Alcohol & Drugs
3 hours lecture.
Grading: letter grade.
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.

HS 247   **3.0 units**

Individual, Group and Family Counseling
3 hours lecture.
Grading: letter grade.
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.

HS 248   **3.0 units**

Law and Ethics
3 hours lecture.
Grading: letter grade.
Learn the applicable laws and liabilities relating to drug and alcohol use/abuse. Issues of confidentiality, patient rights, assessments and interventions will be explored. Designed for students interested in the helping professions.

HS 606   **0.0 units**

Life Planning
1 hour lecture.
Grading: no grade awarded
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.

HUMANITIES

HUMAN 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 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.*

HUMAN 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 to students registered in or with credit in SOCSC1 or 1H. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

HUMAN 3   **3.0 units**

Intro to Issues/Phil, Psych & Religion
3 hours lecture.
Grading: letter grade.
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 for credit to students registered in or with credit in PHIL 3 or PSYCH3. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

HUMAN 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 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 BIO 1A-B, 2, 5, 11, 20, 25 or 41 and PHIL 6, 7, 11 or 12. *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.*

INDIS 1DH   1.0 unit
Honors Interdisciplinary Seminar
1 hour lecture.
Prerequisite: Qualification for the Honors Program.
Grading: letter grade or credit/no credit
Analyzes the fundamental issues facing humanity as a result of the collapse of traditional beliefs after the scientific revolution (1543-1687), using the perspective of philosophy and history. 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 PHIL 6, 7, 11 or 12. *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.*

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 products and materials used in interior design. Includes interior textiles, furnishings and finish 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 design heritage. Beginning with 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

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.*

ITAL 1B   **2.0 units**

Elementary Italian 1B
2 hours lecture, 1 hour laboratory
Prerequisite: ITAL 1A.
Grading: letter grade or credit/no credit
Continuation of ITAL 1A, 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.*

ITAL 2   **5.0 units**

Elementary Italian
5 hours lecture, 1 hour laboratory
Prerequisite: ITAL 1 or 1A and 1B
Grading: letter grade or credit/no credit
Continuation of 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 2A   **3.0 units**

Elementary Italian
3 hours lecture.
Prerequisite: ITAL 1 or 1A-B or recent completion of one year of high school Italian.
Grading: letter grade or credit/no credit
Continuation of the study of basic grammar forms, emphasizing on listening and speaking, reading and writing based on modern topical material. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ITAL 2B   **2.0 units**

Elementary Italian
2 hours lecture, 1 hour laboratory
Prerequisite: ITAL 2A
Grading: letter grade or credit/no credit
Continuation of the study of basic grammar forms emphasizing on listening and speaking, reading and writing, based on modern topical material. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

ITAL 3   **5.0 units**

Intermediate Italian
5 hours lecture.
Prerequisite: ITAL 2 or 2A and 2B
Grading: letter grade or credit/no credit
A review of grammar with emphasis on listening, comprehension, reading and writing skills to express and comprehend sentences using the subjunctive, relative clauses, passive voice and impersonal statements. Not recommended for native speakers of Italian. *Transfer Status: Transferable to CSU, see counselor for limitations.*

JAPANESE

JAPAN 1 (CAN JPN 2)   **5.0 units**

Elementary Japanese
5 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
Essentials of modern spoken and written Japanese for the beginner. Fundamentals of grammar, basic vocabulary, structural patterns, useful phrases and both Kana writing practices (Hiragana, Katakana). Not recommended for native speakers of Japanese or students who have completed two years of high school Japanese with a grade of B or better. *Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.*

JAPAN 1A   **3.0 units**

Elementary Japanese 1A
3 hours lecture.
Grading: letter grade or credit/no credit
The first half of JAPAN1. Essentials of the modern spoken and written Japanese for the beginner. Fundamentals of grammar, basic vocabulary, structural patterns, useful phrases and Kana writing practices (Hiragana). Not recommended for native speakers of Japanese or students who have completed two years of high school Japanese with a grade of B or better. This course in combination with JAPAN1B is equivalent to JAPAN1. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

JAPAN 1B   **2.0 units**

Elementary Japanese 1B
2 hours lecture, 1 hour laboratory
Prerequisite: JAPAN1A.
Grading: letter grade or credit/no credit
The second half of JAPAN1. Essentials of the modern spoken and written Japanese for the beginner. Fundamentals of grammar, basic vocabulary, structural patterns, useful phrases and both Kana writing practices (Hiragana, Katakana). Not recommended for native speakers of Japanese or students who have completed two years of high school Japanese with a grade of B or better. This course in combination with JAPAN1A is equivalent to JAPAN1. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

JAPAN 2 (CAN JPN 4)   **5.0 units**

Elementary Japanese
5 hours lecture, 1 hour laboratory
Prerequisite: JAPAN1 or 1A-B or recent completion of two years of high school Japanese.
Grading: letter grade or credit/no credit
Continuation of JAPAN1. Emphasizes listening, speaking, reading and writing with the correct use of Japanese. Includes Kanji, as well as Hiragana and Katakana. Not recommended for native speakers of Japanese. *Transfer Status: Transferable to UC/CSU, see counselor for limitations. Course articulated with LBUSD.*

JOURNALISM

JOURN 1A   **3.0 units**

Introduction to Desktop Publication
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 1B   3.0 units
Introduction to Desktop Publication
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   3.0 units
Introduction to Public Relations
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   3.0 units
Working on the Magazine
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)   3.0 units
Introduction to Mass Communication
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)   3.0 units
Beginning Newswriting and Reporting
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   3.0 units
Free-Lance Writing
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   3.0 units
Photojournalism
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   1.0 unit
Work Experience Issues — Journalism
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   1.0 unit
Work Experience, Journalism
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   2.0 units
Work Experience, Journalism
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   3.0 units
Work Experience, Journalism
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   3.0 units
Working on the Newspaper
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   3.0 units
Editor Training
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 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.

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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.

MACHINE TOOL

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: MACHT201
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: MACHT202
Grading: letter grade or credit/no credit
Covers safety practices, advanced projects on the tracer lathe, milling machine and horizontal jig borer, surface and cylindrical grinding, related math and blueprint reading.

MACHT 204   10.0 units
Machine Shop 4
5 hours lecture, 15 hours laboratory
Prerequisite: MACHT203
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: MACHT250
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.

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.

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
limitation*s.

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. *Transf*er
*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 12 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 the occupational goal.
One unit of credit shall be granted for every 75 hours per
semester. Maximum of 12 units.

MATHEMATICS

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 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

combinations. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

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 Eqns and Linear Alg
4 hours lecture, 1 hour laboratory
Prerequisite: MATH 80 (may be taken concurrently)
Grading: letter grade.
An intro to the solutions of ordinary differential equations and their relationship to linear algebra. Includes systems of linear equations, matrix algebra, determinants, vector spaces, linear transformations, linear second order ordinary differential equations, power series, solutions, numerical methods, Laplace transforms, eigenvalues, eigenvectors, systems of linear differential equations and applications. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

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.
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.
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
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
Prerequisite: MUSIC 1
Corequisite: MUSIC 9AD
Grading: letter grade or credit/no credit

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: MUSIC2
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 MUSIC31
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 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: MUSIC7AB
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 MUSIC5AD
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 CSU, see counselor for limitations.*

MUSIC 10AD   2.0 units
Musicianship 3
2 hours lecture, 1 hour laboratory
Prerequisite: At least two units of MUSIC9AD
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 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
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 works 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
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
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,

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 Mexican and South American cultures as they impact American jazz and European music. Primarily emphasizes those forms passed on by means of oral tradition, hearing, ritual and anthropological recordings. *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 African culture as it impacts American jazz and European music. Emphasizes those forms passed on by means of oral tradition, hearing, ritual and anthropological recordings. *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 Asian culture as it impacts American jazz and European music. Emphasizes those forms passed on by means of oral tradition, hearing, ritual and anthropological recordings. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

MUSIC   34AD   2.0 units
Music Video Production
2 hours lecture, 2 hours laboratory
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, script, storyboard and budget consideration. Production of selected projects. *Transfer Status: Transferable to 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 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 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
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 52AD   2.0 units
Advanced Piano
1 hour lecture, 3 hours laboratory
Prerequisite: MUSIC 51B
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 55AD   1.0 unit
Guitar
1 hour lecture, 2 hours laboratory
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 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 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

'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 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 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.*

MUSIC 72AD — 2.0 units

Com Improvisation/Arranging/Scoring
1 hour lecture, 3 hours laboratory
Recommended Preparation: Prior vocal experience.
Grading: letter grade or credit/no credit
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.*

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.*

MUSIC   85AD   **1.0 unit**

Commercial Small Jazz Group
1 hour lecture, 3 hours laboratory
Recommended Preparation: Prior instrumental experience
Grading: letter grade or credit/no credit
The study and performance of music for small commercial groups with an emphasis on improvisation. *Transfer Status: Transferable to CSU, see counselor for limitations.*

MUSIC   86AD   **2.0 units**

Record Production (Fundamentals)
1 hour lecture, 6 hours laboratory
Prerequisite: MUSIC 94
Grading: letter grade or credit/no credit
Provides the knowledge needed to function as a producer in today's state-of-the-art recording studios. *Transfer Status: Transferable to CSU, see counselor for limitations.*

MUSIC   87AD   **1.0 unit**

Vocal Jazz Trios, Quintets, Octettes
1 hour lecture, 3 hours laboratory
Recommended Preparation: Prior vocal experience.
Grading: letter grade or credit/no credit
Study and performance of jazz standards and pop classics of unusually difficult arrangements for varying vocal harmony. Many concerts per semester. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

MUSIC   88AD   **1.0 unit**

Small Studio Lab
3 hours laboratory
Recommended Preparation: One semester of MUSIC 94, 95, 96AD or 98AD
Grading: letter grade or credit/no credit
Independent study in recording studio projects that may involve the use of synthesizers, drum machines, digital effects units and computers in the small studio environment. An opportunity for producers/songwriters/ recording engineers to develop studio techniques. *Transfer Status: Transferable to CSU, see counselor for limitations.*

MUSIC   89B   **3.0 units**

The History of Rock Music
3 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
A chronological study of the elements of rock music tracing the development and evolution of the styles and structures of this genre from 1968 to the present. Significance will also be given to the sociological and political impact of this music. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

MUSIC   90AD   **2.0 units**

Commercial Music Theory
1 hour lecture, 3 hours laboratory
Grading: letter grade or credit/no credit
A study of diatonic and nondiatonic harmony, including the circle of fifths, common chords and progressions with direct application to commercial instrumental techniques, song forms and lead sheet usage. *Transfer Status: Transferable to CSU, see counselor for limitations.*

MUSIC   91AD   **2.0 units**

Special Studies
1 hour lecture, 3 hours laboratory
Recommended Preparation: Prior vocal or instrumental experience.
Grading: letter grade or credit/no credit
Directed study of special problems in music theory, composition, musicology, performance practice or organization and administration of instrumental or vocal ensembles. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

MUSIC   92AD   **1.0 unit**

Applied Vocal & Instrumental Music
10 hours laboratory
Grading: letter grade or credit/no credit
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. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

MUSIC   93AD   **2.0 units**

Record Production (Using MIDI)
1 hour lecture, 5 hours laboratory
Grading: letter grade or credit/no credit
A hands-on approach into the production of records, utilizing computer technology and MIDI based musical equipment. *Transfer Status: Transferable to CSU, see counselor for limitations.*

MUSIC   94   **2.0 units**

Beginning Recording Techniques
2 hours lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
Hands-on instruction for beginners in the use of multi-track recording systems, emphasizing the development of critical listening skills and a recording project. *Transfer Status: Transferable to CSU, see counselor for limitations.*

MUSIC   95   **2.0 units**

Intermediate Recording Techniques
2 hours lecture, 2 hours laboratory
Prerequisite: MUSIC 94
Grading: letter grade or credit/no credit
Intermediate recording theory and hands-on instruction in the use of a multitrack studio, emphasizing microphone techniques. *Transfer Status: Transferable to CSU, see counselor for limitations.*

MUSIC   96AD   **2.0 units**

Advanced Recording Techniques
1 hour lecture, 4 hours laboratory
Prerequisite: MUSIC 95
Grading: letter grade or credit/no credit
Advanced recording techniques, with hands-on instruction in the use of a 16-track studio. Individualized study and research into studio procedures, advanced micing techniques and the development of mixing expertise. *Transfer Status: Transferable to CSU, see counselor for limitations.*

MUSIC   97AD   **2.0 units**

Tools of the Music Trade
2 hours lecture, 4 hours laboratory
Grading: letter grade or credit/no credit

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
Synthe./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 Assisstant
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.

VOCN 285A — 1.0 unit

Transition to Vocational Nursing
0.5 hours lecture, 1.5 hours laboratory
Prerequisite: VOCN 290A
Grading: letter grade.
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.

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 287AL
Recommended Preparation: HTECH60, VOCN 286, VOCN 288C, 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 287AL, 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: HTECH60, 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: BIO 60 and either BIO 61 or BIO 261. VOCN 290A, VOCN 285A, VOCN 286, and VOCN 288C.
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 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. The role of peer assistant and leadership is introduced. 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 an understanding of nursing care, diet therapy and pharmacology related to the perioperative period, peripheral vascular, hemotologic, 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: VOCN287B 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 288B and 288BL. A current CPR card. VOCN 290 may be taken concurrently.
Corequisite: VOCN 289AL
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
Development 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
Development 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

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, llBL, 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 demand 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.*

ADN 12AL — 1.5 units

Health Deviations 2: Lab
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.*

ADN 12B — 2.5 units

Health Deviations 3
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.*

ADN 12BL — 1.5 units

Health Deviations 3: Lab
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.*

ADN 20A — 1.0 unit

Transition to Second Level Nursing
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.*

ADN 21A — 2.5 units

Women's Health
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.*

ADN 21AL — 3.0 units

Women's Health Lab
9 hours laboratory
Prerequisite: ADN 12B and 12BL or 20A and BIO 62 and CPR certification for health care providers.
Corequisite: ADN 31A and 21A
Grading: letter grade or credit/no credit
On-campus lab practice and application of course content in the live nursing situation. Includes implementation of skills in perinatal units, newborn nursery, women's medical-surgical settings and community settings. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ADN 21B — 2.5 units

Mental Health
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 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 dehabilitating diseases. Communication skills are a focus of the course. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ADN 21BL — 3.0 units

Mental Health Lab
9 hours laboratory
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
On-campus lab practice and application of theory content in live nursing situations. Includes application of theory and skills in both the psychiatric and medical-surgical settings. *Transfer Status: Transferable to CSU, see counselor for limitations.*

ADN 22A — 2.5 units

Adv Nursing I Critical Care Life Span
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.*

ADN 22AL — 3.0 units

Adv Nurs I-Critical Care Lifespan Lab
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

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 22BL
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 reentry, 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 licenses 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

Corequisite: ADN 21A or 21B.
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 222AD — 2.0 units
Clinical Practicum III
6 hours laboratory
Prerequisite: ADN 21A and 21B
Corequisite: ADN 22A or 22B.
Grading: credit/no credit
Student nurse worker 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 286 — 3.0 units
Nursing Applications of Pharmacology
3 hours lecture.
Grading: letter grade.
An intro to the study of drugs, drug preparation and drug administration as a part of nursing care. Prototype drugs are classified so 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. Calculation of drug dosages is emphasized. Not open for credit to students who have completed VN 286.

ADN 486 — 2.0 units
Nursing Applications of Pharmacology
2 hours lecture.
Grading: credit/no credit
A review of the study of drugs and drug administration as a part of nursing care. Prototype drugs are classified so 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. Calculation of drug dosages is emphasized. Not open for credit to students registered in or with credit in VN 486.

ADN 610 — 0.0 units
Nursing Skills Laboratory
0.7 hours laboratory
Prerequisite: Concurrent enrollment in either LBCC Nursing Program or previous licensure as Licensed Vocational Nurse or Registered Nurse or an approval for reentry into either Nursing Program.
Grading: no grade awarded
This course allows self-paced individualized instruction in basic bedside nursing skills and advanced bedside nursing skills and supervised practice to improve performance levels.

ADN 810 — 0.5 units
Preparation for Nursing
0.5 hours lecture.
Grading: credit/no credit
Designed to assist the nursing or pre-nursing student with no previous experience in health care. Included are: the development of effective study habits and test-taking skills, the study of common nursing terms, abbreviations and symbols and preparation for calculation of drug dosages.

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

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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 Kiekegaard, 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 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.

Grading: letter grade or credit/no credit
A comprehensive course in commercial photography with the major emphasis 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 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 occupational course for the advanced 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 35AD   3.0 units
Photojournalism
2 hours lecture, 3 hours laboratory
Prerequisite: One semester of PHOT 31AB
Grading: letter grade or credit/no credit
Instruction in basic and advanced photojournalism techniques. Practical experience in newspaper photography and magazine publication. Not open to students registered in or with credit in JOURN35AD. *Transfer Status: Transferable to CSU, see counselor for limitations.*

PHOT 37AD   4.0 units
Portrait 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 occupational 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, ADAPTED

PEA 1AD   1.0 unit

PE for the Physically Limited
3 hours laboratory
Grading: letter grade.
A program of individual and group exercises and activities to develop motor patterns and perceptual-motor skills, endurance, strength and self-awareness. All activities will be adapted to the interests, capabilities and limitations of each student. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

PEA 608   0.0 units

Physical Educ for Physically Limited
4 hours laboratory
Grading: no grade awarded
A program of developmental activities, games, sports and rhythms suited to the interests, capabilities and limitations of students with disabilities who may not safely or successfully engage in unrestricted activities of the general physical education program. The program will be predicated upon medical findings and working with medical supervision, guidance and advice.

PHYSICAL EDUCATION, GENERAL

PEG 5AD   0.5 units

Archery
2 hours laboratory
Grading: letter grade.
Learn technical elements of handling a bow and arrow, techniques of aim and trajectory. Participate in target practice tournament rounds. *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
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 Stat*us: *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

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 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 limitati*ons.

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

fallacy. *Transfer Status: Transferable to CSU, see counselor for limitations.*

PEPF 84AD   2.0 units

Fitness and Wellness Center II
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, 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.*

PEPF 629   0.0 units

Physical Fitness
2 hours laboratory
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.

PEPF 681   0.0 units

Human Performance Laboratory
0.5 hours lecture, 1.5 hours laboratory
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

PEPP 1   2.0 units

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.*

PEPP 5   3.0 units

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.*

PEPP 6AD   2.0 units

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.

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.*

PEPP 7 (CAN REC 2)   3.0 units

Intro to Community Recreation
3 hours lecture.
Grading: letter grade.
For recreation majors and non-majors, a general orientation to the field of recreation and parks services, including a history of the development of the recreation profession, a survey of recreation and leisure services, a description and interpretation of recreation as a form of community service and the nature, scope and significance of leisure and recreation as a social force in contemporary society. Emphasizes the role of the professional leader in a variety of settings. *Transfer Status: Transferable to CSU, see counselor for limitations.*

PEPP 10   3.0 units

Prevention & Care of Athletic Injuries
2.5 hours lecture, 2 hours laboratory
Grading: letter grade.
Principles and techniques of the prevention and care of common athletic injuries. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

PEPP 13   1.0 unit

Dance Aerobics-Professional Preparation
0.5 hours lecture, 2 hours laboratory
Grading: letter grade.
Instruction and practice in basic skills to prepare for advanced work in teaching dance aerobics through practical experience. *Transfer Status: Transferable to CSU, see counselor for limitations.*

PEPP 15   3.0 units

Sports Officiating (Fall)
2 hours lecture, 3 hours laboratory
Grading: letter grade.
Theory and practice of officiating basketball, football, soccer and baseball. Actual game officiating in intramural competition. Open to all students. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

PEPP 17   3.0 units

Sports Officiating (Spring)
2 hours lecture, 3 hours laboratory
Grading: letter grade.
Theory and practice of officiating softball, swimming, track and field and volleyball. Actual game officiating in intramural competition. Open to all students. Fulfills physical education requirement and undergraduate elective credit. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

PEPP 19AD   2.0 units

Theory of Football
1 hour lecture, 3 hours laboratory
Grading: letter grade.

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.*

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.*

POLSC   9   **3.0 units**
The Constitution, Law and Society
3 hours lecture.
Grading: letter grade or credit/no credit
A general survey of U.S. Constitutional law and its origins, emphasizing the legal system. The role of law in controversial political and social issues, in particular civil rights and liberties, is examined. Law is analyzed as an integral part of the political process, along with questions of morality. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

POLSC   10   **3.0 units**
Introduction to Political Science
3 hours lecture.
Grading: letter grade or credit/no credit
An intro to the basic concepts and approaches to the discipline of political science. Theories of political institutions, systems and subsystems are examined. Methods and approaches of political analysis are developed in the study of classical and modern political problems. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

POLSC   48   **3.0 units**
California Government and Politics
3 hours lecture.
Grading: letter grade or credit/no credit
A comprehensive survey of the forces shaping the governmental institutions and processes of the State of California and its cities, counties and special districts. Satisfies the requirement for a course in the principles of state and local government as required by Title 5 of the California Administrative Code. A one-unit version of the course is available as POLSC48M1 *Transfer Status: Transferable to 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 Supervis
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.

PUBAD   406   **4.0 units**
Advanced Supervisory Course
4.4 hours lecture.
Grading: credit/no credit
Discusses the principles of leadership and supervision in local 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. Meets POST standards and is designed for police department supervisors and command staff.

PUBLIC AFFAIRS

PUBAF   601   **0.0 units**
Analysis of World Affairs
2 hours lecture.
Grading: no grade awarded
A study of current affairs, contemporary moral issues and social communications to assist the older student in adjusting to a changing world and international relationships.

RADIO/TELEVISION

R/TV   1   **3.0 units**
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   **2.0 units**
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   **2.0 units**
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   **3.0 units**
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   **3.0 units**
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   **3.0 units**
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   **1.0 unit**
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   **2.0 units**
Television Lighting
1 hour lecture, 3 hours laboratory
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   **2.0 units**
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   **2.0 units**
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

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.*

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   89   **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   90   **3.0 units**

Tax Aspects of Real Estate Transactions
3 hours lecture.

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 study of 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.

SHMET 298   **1.5 units**
ST Intro to High Skill/High Wage Jobs
1 hour lecture, 2 hours laboratory
Grading: letter grade or credit/no credit
An intro to the trades via a hands-on project involving skills used in construction trades, manufacturing technologies and transportation.

SHMET 420AD   **3.0 units**
Sheet Metal Fabrication
1 hour lecture, 6 hours laboratory
Grading: letter grade or credit/no credit
Use hand and machine tools and equipment; perform layout and pattern development; use various types of sheet metal; demonstrate project forming, riveting, welding and soldering.

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

religious identities based on their traditions and experiences, will seek to understand the United States as a mosaic of ethnicities, as well 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.*

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 **3.0 units**
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 **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. 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 **3.0 units**
Sociology of Latinos
3 hours lecture.
Grading: letter grade.
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 CSU, see counselor for limitations.*

SOCIO 40 (CAN HEC 12) **3.0 units**
Marriage and the Family
3 hours lecture.
Grading: letter grade or credit/no credit
Study of all major aspects of preparation for and participation in marriage and family life in the modern world; courtship problems, mate selection, marital adjustment, problems of parenthood, family crises and ways of meeting them. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

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. *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.*

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 or in representative Spanish literature. *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 or in representative Spanish literature. *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, critical thinking, 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

techniques of leadership toward understanding the role of leaders in organizational success. *Transfer Status: Transferable to CSU, see counselor for limitations.*

SP 39AD   1.0 unit
Leadership Laboratory
3 hours laboratory
Grading: letter grade or credit/no credit
A practical application of leadership and parliamentary skills. Includes: discussions with leaders, weekly journals summarizing leadership experiences and problems. *Transfer Status: Transferable to CSU, see counselor for limitations.*

SP 50   3.0 units
Elements Of Oral Interpretation
3 hours lecture.
Grading: letter grade or credit/no credit
The basic principles of oral communication are explored through oral reading of prose, poetry and dramatic literature. *Transfer Status: Transferable to UC/CSU, see counselor for limitations.*

SP 60   (CAN SPCH 6)   3.0 units
Elements of Argumentation and Debate
3 hours lecture.
Grading: letter grade or credit/no credit
Gain knowledge and understanding in the use of research skills and reasoning and learn to apply these skills in the debate of timely issues. Gain added appreciation for the role that advocacy and reasoning play in a free society. *Transfer Status: Transferable to UC/CSU, see counselor for limitati*ons.

SP 69AD   1.0 unit
Speech Activity: Team Events & Debate
10 hours laboratory
Grading: letter grade or credit/no credit
Through intercollegiate debate and team event competition, perfect argumentation and debate skills, the ability to perform in groups and gain increased confidence as communicators. *Transfer Status: Transferable to CSU, see counselor for limitations.*

SP 70   3.0 units
Voice and Articulation
3 hours lecture, 1 hour laboratory
Grading: letter grade or credit/no credit
Intensive training in articulation, enunciation, projection and related oral skills, based on the physiology, anatomy and assessment of voice production. *Transfer Status: Transferable to CSU, see counselor for limitations.*

SP 99AD   1.0 unit
Special Projects in Speech
3 hours laboratory
Grading: letter grade or credit/no credit
Allows students to investigate an area of speech communication that is of special interest to them. The overall philosophy is to challenge each student to accomplish goals that could not be reached in other courses. Working on an individual basis, assignments will be tailor-made, thus providing personal attention and directly observable and measurable outcomes to the instructor. *Transfer Status: Transferable to CSU, see counselor for limitations.*

SPEECH LANGUAGE PATHOLOGY ASSISTANT

SLPA 10   2.0 units
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.*

STAT 1H   3.0 units
Honors Elementary Statistics
3 hours lecture.
Prerequisite: Qualify for the Honors Program. MATH 130 or high school intermediate algebra with a grade of B or better as refl ected by the second semester grade, or qualification thr ough the math assessment process.
Grading: letter grade.
Includes graphic presentation of data; probability; probability distributions such as the binomial and normal distributions; Central Limit Theorem; one and two sample hypothesis tests and confidence intervals; and simple regression and correlation. Emphasizes the use of technology in statistical analysis as it applies to real world data, as well as the written communication of results. *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 concurently) & 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 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 theatrical improvisation. Drawing from both playwrights and imaginations, 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.*

TART 40AD (CAN DRAM 12)   **2.0 units**
Stage Scenery
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.*

TART 42AD (CAN DRAM 10)   **2.0 units**
Stage Lighting
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.*

TART 43AD   **2.0 units**
Costume Crafts
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.*

TART 44AB   **2.0 units**
Costume Design
1 hour lecture, 3 hours laboratory
Prerequisite: TART 43AD
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.*

TART 47 (CAN DRAM 16)   **3.0 units**
Theatre Management
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 CSU, see counselor for limitations.*

TART 49AD   **1.0 unit**
Rehearsal and Performance
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.*

TART 50/1   **0.5 units**
Major Production Performance
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 CSU, see counselor for limitations.*

TART 50/2   **1.0 unit**
Major Production Performance
4 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 CSU, see counselor for limitations.*

TART 50/3   **1.5 units**
Major Production Performance
6 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. Production will be presented for public performance. Enrollment is for the duration of the audition, preparation and presentation phases of production. *Transfer Status: Transferable to CSU, see counselor for limitations.*

TART 50AD   **2.0 units**
Major Production Performance
8 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 actor in order to develop his 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. 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.*

TART 51AD   **0.5 units**
Theatre Forum
0.5 hours lecture, 0.5 hours laboratory
Grading: letter grade or credit/no credit

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 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: TART76AD
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, painting and construction techniques, 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.

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—APOLL0
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 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

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.

WELD   451AD   **1.0 unit**

Welding (ARC)
3 hours laboratory
Grading: letter grade or credit/no credit
Practice arc welding procedures on various types of metal and learn safety practices.

WELD   452AD   **2.0 units**

Welding (Acetylene Gas)
6 hours laboratory
Grading: letter grade or credit/no credit
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.

WELD   453AD   **1.0 unit**

Welding (Acetylene Gas)
3 hours laboratory
Grading: letter grade or credit/no credit
Learn techniques of oxy-acetylene gas welding of steels and aluminum, hard facing, flame cutting brazing, oxy-hydrogen welding and safety practices.

WELD   454AB   **2.0 units**

Welding (Inert Gas)
6 hours laboratory
Grading: letter grade or credit/no credit
Techniques of metallic and tungsten inert gas welding. Welding of steels, aluminum, magnesium, cast iron and safety practices are covered.

WELD   461AD   **1.0 unit**

Oxygen Acetylene Welding
3 hours laboratory
Grading: letter grade or credit/no credit
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.

WELD   481AD   **1.0 unit**

Welding (Inert Gas)
3 hours laboratory
Grading: letter grade or credit/no credit
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.

WELD   601   **0.0 units**

Basic Vocational Education
15 hours laboratory
Grading: no grade awarded
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.

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Trades & Industrial

ABDELRAZEK, MAGED M.
Computer & Business Information

ABDOLVAHABI, AHMAD
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ADERINTO, ADEYOMBO K.
English as a Second Language

AGBAHIWE, EJIOBI K.
English, Reading

AGUILAR, EDGARD
English, Reading

AGUIRRE, WILLIAM
Spanish

AJA, MARY E.
Physical Education

ALAEI, SHAHNAZ P.
English as a Second Language

ALBRECHT, NANCY K.
Computer & Office Technologies

ALEXANDER, ELDON L.
Philosophy

ALLEGRE, LUDMILA
English as a Second Language

ALLEN, ROBERT L.
Music & Radio/Television

ALTEBARMAKIAN, KRIKOR
Computer & Business
Information Systems

ALTMIRE, MATTHEW
Music & Radio/Television

ALVARADO-BRANNAN, JESSICA K.
Computer & Office Technologies

ALVAREZ, LIGIA C.
Health Education

ALVES, JANE
Drafting

AMPUDIA, JORGE F.
Psychology/Human Services

ANANIA, MARILYN N.
Italian

ANDERSON, CHERYL M.
Travel/Tourism

ARAKI, KISABURO P.
Computer & Business
Information Systems

ARSENIDIS, DIMOS V.
Mathematics

ASADIRAD, MINA
Floral Design

ASHTON, CLIFFORD
Welding

ATH, YONTHA
Mathematics & Engineering

AVILA, ALFREDO
Diesel Mechanics

AYORINDE-SKIDMORE, ADEPEJU A.
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BABB, CARL
Life Science

BAE, SEONG-OK
Foreign Language

BAILEY, JENNIFER N.
Social Science

BALDWIN, HOWARD B.
Chemistry

BALL, GREG J.
Auto Mechanics

BALL, JERALD T.
Mathematics

BALLARD, TERI L.
Physical Education

BALLINGER, EVAN
Art

BANKS-SMITH, CHERYL
Dance

BARGER, BOB D.
History

BARTH, LOIS C.
Mathematics

BATSTONE, DON M.
Counseling

BATTS, ANTHONY W.
Public Affairs & Services

BAUMHECKEL, KENNETH R.
English as a Second Language

BAY, JESSE C.
Art

BECKHAM, WILLIAM T.
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BELL, PAULA J.
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BERG, PATRICIA J.
English, Reading

BERLIN, LAWRENCE W.
Mathematics

BERTEIN, LUCILLE
Culinary Arts

BERTRAM, WILLIAM G.
Citizenship

BIETHAN, MARJORIE
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BIGELOW-RIPLEY, DENISE M.
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BIGGS, MICHAEL E.
Public Services

BIHLER, KENNETH
Aviation

BLACK, DAVID
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BLAIR, ARTHUR C.A.
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BLANK, KAREN
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BOSLER, EUSTELLA JEAN
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BOSTER, LINDA J.
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BOWERS, ALISON
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BOYCE, ALLISON A.
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BOYD, JEFFREY
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BRINSON, LASHAWN
Child Development

BRIZUELA, MAKELA
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BROWN, SCOTT A.
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CARNEY, JOHN
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CASEY, MARGARET E.
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CASEY, PAUL L.
English, Reading

CASHION, JOAN
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CASTILLO, EMILIA
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CHAMBERS, MALCOLM C. JR.
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CHATTERJI, MOUNITRA
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CHEATHAM, TERESA
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CHEN, CHIA-WEI
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CHEN, XIAOFANG
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CHENG, PEIHSIN Y.
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CHUAH, CHENG-CHENG
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COMPANIONI, ALEXA C.
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CUEVAS, IRVIN
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DE LEON, RAYMOND Z.

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DE LOS RIOS, KATYA
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DIMO, EDITH
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DURON, SONNY
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GARCIA, DIANA
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GOTO, TOSHIKO
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HATCH, KIM
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HAY-LAVITT, ALISON
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HAYNES, CHARLES
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HEATH, BRADLEY
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HELLER, ROSEANNE
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HENDRIX, DAWNE
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HERZBERG, LARRY A.
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English

HINES, DIANA G.
English

HINTON, MARIE-LOURE H.
Foreign Language

HIVELY, STUART E.
Electricity/Electronics

HOANG, THU-HANG
Mathematics & Engineering

HOFFERD, RICHARD J.
English as a Second Language

HOGENSON, MARGARET L.
Vocational Nursing

HOLBROOK, NANCY
Registered Nursing

HOLMAN, DONALD L.
Real Estate

HOLMES, JUDI
Counseling

HOOTEN, DANA R.
Learning Assistance

HOOVLER, PATRICIA J.
English

HOPE, CLIFFORD E.
English as a Second Language

HOPKINS, ALAN
Mathematics & Engineering

HORNBY, CARRIE L.
Food & Nutrition

HOSEA, JASON
Health Technologies/EMT

HOWARD, CHARLA V.
English

HUGGINS, PAULA F.
Allied Health

HUMES, D. ANN
English

HUNTER, ELLA M.
English

HUNTER, SUSAN V.
Management

IBANEZ, CRAIG G.
Public Services

IBRAHIM, MAJED S.
Mathematics & Engineering

IMBARUS, AURA
English

ISAIAH, ANGELA
Computer & Office Technologies

ITO, MANAMI
Foreign Language

JACKSON, BRENDA
Counseling

JACKSON, CHARLES B.
Mathematics & Engineering

JACKSON, DARYL T.
Physical Education

JAMES, RICHARD L.
Physical Education

JEFFRIES, GRANT
Emergency Medical Technology

JENSEN, KARIN
Physical Education

JERVEY, ANNIE A.
Physical Education

JOHNSON, CHARLES P. II
Electronics

JOHNSON, DANIEL J.
History

JOHNSON, ELMER C.
Culinary Arts

JOHNSON, GARY T.
Drafting

JOHNSON, KURT D.
Fire Science

JOHNSON, MARY B.
Computer & Office Technologies

JOHNSON, RANDALL C.
Life Science

JOHNSON, SHARON A.
Administration of Justice

JOLLY, JEFFRY
English/Reading

JONES, GABRIELLA
Speech

JONES, KRIS D.
Physical Science

JONES, SHERYL
Computer & Business
Information Systems

JONES, SOLOMON J.
History

JONGERIUS, ROBIN L.
Fashion

JORDAN, RUSSELL C. JR.
Counseling

JOSEPH, SUSAN
Art

KACI, JUDITH
Public Services

KAKOVITCH, SAMUEL
English as a Second Language

KAMINSKY, ALISON
History & Political Science

KANER, WILMA
English as a Second Language

KANG, CHAN
Mathematics & Engineering

KARWELIS, DONALD
Art

KEARNEY, KEVIN M.
Music

KEESEE, JERRY W.
Computer & Business
Information Systems

KELLEY-KUHN, NANCY M.
Child Development

KENAH, WILLIAM
English

KENDALL, CELIA A.
English/Matriculation

KENT, JOHN R.
Phlebotomy

KERWIN, JEANNE
Child Development

KETCHUM, MONICA D.
History & Political Science

KEYS, WILLIAM J.
Computer & Business
Information Systems

KHATIBI, HOUSHANG
Social Science

KHOURY, CINDY C.
Speech Communication

KIDD, THOMAS
Art

KILLIAN, ANNE
Food & Nutrition

KIMNINOS, JACQUELINE
English

KING, KEVIN K.
Public Affairs & Services

KINSELLA, DENISE L.
International Students

KLEIN, MARTI
Geography

KLINGBEIL, CYNTHIA N.
Child Development Center Site
Supervisor

KOEHLER, GERRY P.
Foreign Language

KOENIG, ROBERT A.
Business/Accounting

KOIKE, JUDITH M.
Library

KOONS, KENNETH G.
Public Affairs

KORTZ, VERONICA L.
English, Writing/Reading Center

KRADJIAN, CLAYTON R.
Social Science

KRAUSERT, SANDRA
English as a Second Language

KROLL, GUSTAV A.
English

KRONGOLD, RALPH
Electronics

LABIO, AIDA C.
English as a Second Language

LAMAR, JANE
Fashion

LAMBROS, JOHN T.
Speech Communications

LAMKINS, JENNIFER
Computer & Office Technologies

LANDON, HAROLD F. JR
Theatre, Dance & Film

LANGEVIN, DELORES M.
Mathematics

LANSDOWN, ERICA L.
English as a Second Language

LAPORTA, MICHELE
English

LAUT, DONALD
Physical Education

LAVARINI, CAROLEE
Photography

LAVARINI, THERESA L.
English

LAWLER, JEFFREY
History & Political Science

LE, HELEN T.
Social Science

LEE, BETTY
English

LEFEBVRE, CAROL O.
Physical Education

LEFFLER, KARIN L.
Counseling & Matriculation

LERVOLD, JOHN D.
Speech Communication

LEVINE, MICHAEL A.
Business Administration

LEWIS, JUNE H.
English as a Second Language

LEWIS, LINDA A.
Dance

LICARDI, GASPER
Cabinet Making/Carpentry

LIEWALD, LOUISE
Business Administration

LINDEN, RONALD E.
Art

LISANTI, JAMES M.
Culinary Arts

LITHERLAND, LARRY P
Electricity

LITZINGER, PAUL D.
Photography

LOBLINER, ROBERT H.
Chemistry/Mathematics/Physics

LORING-MEIER, TORRAN L.
Social Science

LOUIS, IRIS G.
Spanish

LUCHTMAN, ALANA L.
English as a Second Language

LUGO, DENISE I.
Art

LUO, HAO-YUN
English as a Second Language

LUPASH, CORNELIA B.
Physical Science

LY, THANH L.
Extended Opportunity Program

MAAG, PEGGY A.
Registered Nursing

MACIAS, SUSAN E.
English as a Second Language

MACKOWIAK, JAMES F.
Computer & Business
Information Systems

MADSEN, RODNEY A.
Social Science

MAGRO, MICHAEL W.
Computer & Business
Information Systems

MAHONEY, JAMES J.
Philosophy

MALEVITZ, PAUL J.
English as a Second Language

MALONEY, MICHAEL S.
Physical Education

MALSCHICK, DEBRA F.
Art

MANDARINO, CANDIDA A.
Learning Assistance

MANLOWE, MELINDA A.
Speech

MANN, WILLA
Social Science

MAPES, SUZANNE
Photography

MARCH, JAMES S.
Accounting

MARKSBURY, GARY
History

MARRUJO, LUCIENNE
Physical Education

MARTIN, GREGORY
Music & Radio/Television

MARUYAMA, DAVID H.
English

MASSIE, SANDRA C.
Theater, Dance & Film

MATTHEWS, BARBARA S.
Theater, Dance & Film

MC ANDREWS, ROBERT B.
Cabinet Making/Carpentry

MC CLAREN, WILLIAM A.
Aviation/Pilot Training

MCCONNELL, PATRICK A.
Computer & Business
Information Systems

MCLAUGHLIN, MARIE
English

MCMAHON, PAUL R. JR.
Drafting

MC MILLAN, DONALD P.
Accounting

MC MILLEN, ROXANNE S.
Computer & Office Technologies

MEADE, EVELYN M.
Speech Communication

MECKES, ANA M.
Matriculation & Student
Assessment

MEDINA, JOHN L.
Auto Body

MEHTA-LISSAK, SAROJNI
English as a Second Language

MELUCCI, NANCY J.
Social Science

MENACHEM, ISRAEL
Mathematics & Engineering

MENDEZ, TONI
Interior Design

MENDOZA, JAVIER M.
Journalism

MERCURIO, JAMES
Theater, Dance & Film

MESSINA, VALERIE J.
Vocational Nursing

MIKULKA, MICHAEL S.
Music & Radio/Television

MILES, ROBERT S.
Psychology

MILLER, CHRISTOPHER D.
Music & Radio/Television

MILLER, DANNY G.
Computer & Business
Information Systems

MILLER, KARIMA F.
Health Technologies/EMT

MITU, ZENAIDA
Vocational Nursing

MITZNER, RITA
English

MIYAGAWA, JENNIFER A.
Food & Nutrition

MOCHIZUKI,SHUNSUKE S.
Foreign Language

MOGAN, JIMMY
Auto Body

MONAUS, MARIE A.
Computer & Office Technologies

MONGE, J. MICHAEL
Social Science

MONTGOMERY, JENNIFER
Child Development

MOORE, CHRISTINE G.
Social Science

MOORE, HENRY III
Social Science

MOORE, SCOTT P.
Creative Arts

MOORHEAD, CHRISTINA L.
Speech

MORAGA, PETE

Drafting

MORGAN, ARON
English

MORRIS, KENT H.
Social Science

MORRIS, SHERYN L.
Library

MORSE, CARYN F.
Theatre, Dance & Film

MORTENSEN, GREGORY L.
Music

MORTON, ELAINE D.
Counseling

MOSQUEDA, CYNTHIA
Student Counseling/Guidance

MUSZYNSKI, BETTY A.
Child Development

MYERS, ROBERT C.
Physical Education

MYERS, ROBERT R.
Adapted Physical Education

NABULSI, AKRAM
Mathematics & Engineering

NADER, CAROL A.
English

NASH, ELIZABETH T.
Title V

NEAL, SHIRLEY E.
English as a Second Language

NEBBIA, GERARDO
Social Science

NEU, HEIDI A.
English as a Second Language

NEUBAUER, SHARON A.
Social Science

NEUMANN, DAVID J.
History & Political Science

NGO, MINH V.
Foreign Language

NICHOLS, JOHN R.
Computer & Business
Information Systems

NICHOLSON, RAMONA J.
Computer & Office Technologies

NICHOLSON, STEVEN E.
Cabinet Making/Carpentry

NIELSEN, DONAVAN J.
Computer & Business
Information Systems

NIGRELLI, CHRISTINA
Child Development

NIKOLAOU, URSULA J.
Spanish

NIKOLETICH, CLAIRE S.
Medical Assisting

NIYONDAGARA, ALICE
English as a Second Language

NOONAN, DONAL JR.
Welding

NORDEE, ROBIN A.
Librarian

NORTON, MARY
Social Science

NORTON, THOMAS
Physical Science

NUNEZ, MARIA TERESA C.
Foreign Language

NUSBAUM, LINDA J.
Music & Radio/Television

NWOSU, PATRICK
Accounting

OH, HAEKWON
Music & Radio/Television

OLMSTED, JOHN E.
Social Science

ORTMAYER, PATRICIA
English/Reading

OSHIRO, GAIL Y.
DSPS Counselor

OSMERA, HUGH M.
Spanish

OWENS, MICHAEL D.
Physical Education

PACHECO, BLAINE R.
Real Estate

PACLEB, ELISA
Vocational Nursing

PADBORG, KNUD H.
English as a Second Language

PADGETT, DONNA
English, Writing/Reading Center

PAREDES, LUIS H.
Spanish

PARKER, SHAWN M.
Health Technologies

PARODI, CLAUDIA
Foreign Language

PARSCH, TIMOTHY J.
Music & Radio/Television

PASS, JIM
Sociology

PAUL, JEFFREY D.
Theatre, Dance & Film

PAZARGADI, FATIMA
Foreign Language

PEARCE, PETER R.
Music & Radio/Television

PENA-ALANIS, LOURDES
Social Science

PERRY, STEPHEN
English

PETERSON, KRISTINA I.
Library

PETKE, RON
Radio/Television

PHAM, HOA
Child Development

PIERCE, KRISTEN
Child Development

PITTS, DENNIS M.
Computer & Business
Information Systems

PITTS, MICHAEL E.
English as a Second Language

PIZER, JANIS
Student Counseling & Guidance

PORTENIER, ANDREA E.
Life Science

PORTILLO, ROSARIO
Social Science

POTTER, LAURIE E.
English as a Second Language

PRATT, JOYCE R.
Title V

PRICE, VIVIAN H.
Radio/Television

PUGLISI, ROBERT
English as a Second Language

QUEEN-FUENTES, DENISE D.
Computer & Office Technologies

QUINONES, MARGARET R.
Student Counseling & Guidance

QUINONEZ, VERONICA S.
Extended Opportunity Program

QUINTANA, REFUGIO F.
Extended Opportunity Program

RADLOFF, SUSAN
Vocational Nursing

RAE, MIKE
Physical Education

RAMI, KIRAN
English as a Second Language

RAMIREZ, FRANK JR.
Cabinet Making/Carpentry

RAMOS, ALEC J.

Computer & Office Technologies

RAMOS, CARLOS M.
Social Science

REAGOR, PAMELA A.
Psychology/Social Science

REDDINGIUS, ELLEN A.
English as a Second Language

REID, DEON N.
Art

REMETA, ROBERT W.
Electricity

RENO, ANDREW B.
Health Technologies

RENSWICK, PHYLLIS A.
Art

REVILLA, CANDACE
English as a Second Language

REYES, DEIRDRE
English

RICE, JUDITH A.
Health Education

RICHARD, BRIGITTE B.
Physical Education

RICHARDS, GISELLE T.
English as a Second Language

RICHARDSON, JAMES
Physical Education

RIGGINS, LAWRENCE D.
Film

RINDER, STACEY L.
English

RIOJAS, VINCENT L.
English as a Second Language

RIOS-ELLIS, ENRIQUE
Music & Radio/Television

ROBERTS, KAREN L.
Art

ROBERTSHAW, THEODORA M.
Art

ROBINSON, MICHELE R.
Registered Nursing

ROESSLER, MARK F.
History & Political Science

ROGERS, KATHLEEN D.
English, Reading

ROGERS, WELLINGTON S.
Physical Education

ROMITO, SHIRLEY A.
English as a Second Language

ROMITO, SUSAN J.
English as a Second Language

ROSA, MELANIE
Theatre, Dance & Film

ROSSMANNEK, FRED H.
Learning Assistance

ROTH, DANA
Art

ROZIER, LEANNE M.
Public Services

RUJANAWECH, GORDON
English

RUNNINGBEAR, SHANNON Q.
Language Arts

RUSSO, SAMUEL A.
Philosophy

SABHA, FAYRUZ
English as a Second Language

SABINE-WOLF, KERRI E.
Art

SAINT, SHAILA
Child Development

SALAZAR, ANTHONY
Diesel Mechanics

SALAZAR, KATHLEEN A.
Child Development

SALIM, LINDA
English as a Second Language

SALIM, PETER
English as a Second Language

SANCHEZ, VICTORIA
Photography

SAREEN, SUDEEPA
English as a Second Language

SASO, MARIKO
Mathematics & Engineering

SATO, DEEANN
Life Science

SAVAGE, MARGARET K.
Anatomy

SAYED, SAFOUH
Mathematics & Engineering

SAYLOR, PATRICIA R.
English

SCHAUWEKER, JOHN
Computer & Office Technologies

SCHITAI, AMIT
Learning Assistance

SCHROEDER, ARNOLD L. JR.
Mathematics & Engineering

SCHULBERG, DAVID
Public Affairs & Services

SEATON, SHARYN L.
History

SEGAL, MARK J.
English as a Second Language

SEGUNDO, THERESE R.
English as a Second Language

SEIFERT, ROGER G.
Sociology

SERR, RUSSELL A.
Allied Health

SEYLER, DAVID L.
Mathematics

SHACKELFORD, STEPHAN M.
Aviation Pilot Training

SHAFER, WENDELL W.
Physical Science

SHARMA, DEEPAK
Mathematics & Engineering

SHARP, RAY
Music & Radio/Television

SHAW, ALLYSON
English/Matriculation

SHELLEY, TRUMAN E.
English as a Second Language

SHHUB, ABDULATIF
Computer & Business
Information Systems

SHHUB, NASER
Mathematics & Engineering

SHIBUYA, STEVEN T.
Machine Tool

SHIM, CASEY N.
Basic Adult Education

SHISHIM, LESLI S.
English as a Second Language

SIEGEL, JANNEANE R.
English as a Second Language

SILVA, VICTOR
Welding

SILVERSTEIN, CAROLE
Fine Art

SIMON, JOHN H.
Aviation Maintenance

SIMPSON, JAMES A.
Art

SIMS, SUSAN K.
Women's Golf Coach

SINCLAIR, REX
Physical Science

SINGLETON, PAUL R.
English

SIQUEIROS, ADOLFO
Computer & Office Technologies

SIRKEGIAN, ROBINSON
Auto Body Repair/Automotive Mechanic

SJOBERG, 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
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

STARROS, 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

TRAVERS, 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

VAN VOOREN, MARIE
Computer & Office Technologies

VAUGHN, DEXTER J.
Student Counseling & Guidance

VELEZ, ALFREDO
Foreign Language

VELLEKAMP, HENRY
Swimming

VENTO, JOHN P.
History & Political Science

VINAS, MARISA R.
Vocational Nursing

VIVIAN, SIGRID P.
English as a Second Language

VOGEL, KAREN
Library

VOZZELLA, ELIZABETH
Public Services

WADDLE, SHERIE J.
Mathematics & Engineering

WAECHTER, CAROL N.
Speech

WAGNER, HELENE
Speech Communications

WALKER, CHERYL
Art

WALL, KATHLEEN
Food & Nutrition

WALLECH, MEGUMI
Art

WALSH, RUTHE L.
Food & Nutrition

WAN, THEODORE
English as a Second Language

WARKEN, THOMAS C.
English/Matriculation

WARNIMONT, KELLY
Physical Education

WARNOCK, KRESHA
Child Development

WATTS, JOHN T.
Public Affairs & Services

WAWRZYNSKI, PAUL A.
Health Technologies

WEBB, WILLIAM C.
Physical Education

WEISBORD, JILL
Social Science

WEISS, BERNICE L.
Italian

WEISS, ERIC E.
Cabinet Making/Carpentry

WELCH, ANTHONY L.
Student Counseling & Guidance

WELLS, REX C.
Speech

WELLS, SCOTT J.
Social Science

WEST, BARBARA
English/Reading

WESTLUND, GRACE M.
Financial Aid/Scholarships

WETSMAN, MICHAEL
Aviation Pilot Training

WHITE, CHARLES J.
Theatre

WHITE, STEPHANIE L.
Social Science

WHITELOCK, MERRI G.
History

WHITSON, STEPHEN
Business Administration

WIEGAND, ROBERT H.
Librarian

WIENCEK, JEROME J.
Public Affairs & Services

WILKINSON, RICHARD A.
History

WILLIAMS, MARY B.
Student Counseling & Guidance

WILLIAMS, SHERYL R.
English

WILSON, THOMAS
Computer & Business
Information Systems

WILSON, WINNIFRED L.
Geography

WITKIN, LEONARD
Mathematics

WONG, DUMAN
Computer & Business
Information Systems

WOOD, SUZANNE
Librarian

WRANIC, ANGELA
Physical Science

WRIGHT, FRIEDA L.
Vocational Nursing

WU, JAHANNA
English as a Second Language

WYATT, ROGER, W.
Basic Adult Education

WYLIE, JAYNE R.
Vocational Nursing/Medical

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, ANTIONETTE
Senior Clerk

BARTZ, JENNIFER L.
Secretary, Title V

BASS, RICKEY D.
College Safety Officer

BATTIEST, DEBRA T.
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

CARPIO, 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

COMPIAN, JOHNNY
Skilled Maintenance Worker

COMPIAN, 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

CREASY, 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

DEWEESE, 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
Aide

ESLAVA, MARGARET E.
Child Development Specialist

ESTACIO, RICHARD R.
Lead Custodian

ESTACIO, RONALD J.
Warehouse Receiving Clerk

FALTADO, EXVIMIN A.
Senior Clerk

FAN, CICY
Intermediate Clerk

FEENSTRA, DARREN J.
Grounds Equipment Operator II

FENDERSON, MARIE E.
Intermediate Clerk

FERNANDEZ, YOLANDA C.
Senior Clerk

FINLEY, BRENDA 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

GUAJACA, 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 I.
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

KECKEISEN, DEBORAH C.
Accountant

KHONG, NONG
Instructional Aid

KIFT, KATHERINE
Office Assistant

KINSELLA, DENISE L.
International Program Specialist

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

LACEFIELD, BEVERLY
Senior Clerk

LAM, HUE
Office Assistant

LANE, RENO A.
Financial Aid Technician

LANG-WILVERS, JACQUELINE
Grants Development Specialist

LASHOWER, KAREN L.
Instructional Aide

LAWRENCE, KERRY D.
Telecommunications Technician

LAWRENCE, SHERRI L.
Computer Operator

LEMLE, BARBARA
Intermediate Clerk

LERCH, VICKI A.
Campus Support Secretary

LEUER, PATRICIA L.
Accounting Technician II

LICHTENBERGER, JANA M.
Buyer

LIM, NORMA B.
Secretary

LINO, ARDETTE R.
Senior Clerk

LITTLEJOHN, ROSE
Senior Clerk

LONEY, BRADLEY R.
Custodian

LONG, BORATH
Instructional Aide

LONG, LEKKINA
Assistant Job Developer

LOPEZ, PRISCILLA
Workforce Development Coordinator

LOPEZ, SHARON R.
Senior Clerk

LORENCE, ELLEN K.
Senior Clerk

LOWER, LINDA D.
Secretary II

LUDWIG-BONGARD, JULIA
Instructional Aide

LUUGA, AUGUST
Systems/Programming Manager

LUUGA, LYNDA G.
Registrar

LY, BOUNRITH
User Support Network Coordinator

LY, RICHARD
Instructional Aide

LY, THAI
Instructional Assistant

LYLES, STEPHANIE
Custodian

MABON, LEO
Custodial Services Manager

MAC CULLEN, RUTH E.
Associate Registrar

MADERA, ELIZABETH
Administrative Secretary

MAGDALENO, CORINNE
Administrative Secretary

MAJOR, ELLA L.
Accounting Technician III

MALAGA, BENIGNO
Custodian

MALONEY, MICHAEL
Student Athlete Success Coordinator

MARCY, DONALD J.
Stage Technician

MARIOTTA, MARIO, III
Stage Technician

MARPLE, TERRI L.
Office Assistant

MARSHALL, STEVEN V.
Campus Police Officer

MARTIN, ELIZABETH
Library Assistant

MARTIN, MARLIN
Offset Press Operator

MARTINEZ, MELISSA
Child Development Specialist

MASESSA, MIKE R.
Carpenter

MASSIE, ROY
Campus Safety Officer

MATHEWS, JESSE
Custodian

MATHIS, SANDRA L.
Buyer

MC CREADY, OLIVIA D.
Disabled Student Programs & Services Technical Assistant

MC ELDOWNEY, MARY L.
Executive Secretary

MC GOLDRICK, JAMES J.
Custodian

MC GOVERN, JOHN P.
Construction Coordinator

MC GUIRE, GAIL
Senior Clerk

MC INTOSH, PATRICIA S.
Senior Clerk

MC KENZIE, LORI K.
Health Services Assistant

MC KIBBEN, DIANE E.
Career Center Technician

MC KIBBIN, LORI J.
Financial Aid Technician

MC NAMEE, ANN B.
Assessment Technician-Matriculation

MCQUEEN, ROBERT
Custodian

MEAK, SAVOUN
Office Assistant

MEJIA-GAYTAN, GEORGIANA
Human Resources Assistant

MELIN, CONNIE
Human Resources Specialist

MELLEVOLD, MICHAELEEN T.
Library Technician II

MENDOZA, DAVID C.
Custodian

MENDOZA, GRACIELA D.
Division Secretary

MERCADANTE, MICHAEL J.
Science Laboratory Stockroom Assistant

MERRILL, VICTOR
Plumber

MEZA, MARSHA
Admissions and Records Assistant

MILKES, SHARON
Senior Clerk

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

MORALEZ, 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

PHUORNG, 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

ROSSMANNEK, FRED H.
Lead Media Producer

RUALO, DANILO C.
Lead Custodian

RUALO, EMMANUEL G.
Custodian

RUBALCAVA, 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, TAUASOSI M.
Senior Clerk

SAU, CHANDHA
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

STEVENS, JASON
Instructional Assistant

STEVENS, MARLIN O.
Instructional Toolroom
Maintenance Mechanic

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

SYBESMA, SAMUEL H.
Grounds Maintenance Worker

TAROS, ELIZABETH
Instructional Aide

TERAOKA, ADAM
Powertools Lab Technician

THACH, PHUONG MINH
Case Coordinator-Rite

THOEURB, TEP
DSPS Technical Aide

THOITS, MARY
Manager, Senior Studies

THOMAS, JAMES
College Police Officer

THOMAS, LAURA Y.
Accounting Technician I

THOMPSON, DANA P.
Heating, Ventilation, Air
Conditioning Mechanic

THORPE, MARY L.
Accountant

THRIFT-VIVEROS, LOURDES
Child Development Associate
Specialist

TILL, DAVID W.
Painter

TIM, RAOTANA C.
Senior Clerk

TO, DANIEL C.
Lead Custodian

TOLLIVER, SIMONE R.
Purchasing Clerk

TORK, KEARNIK
Case Coordinator-Rite

TORTAROLO, JOHN
Director, Human Resources

TOUCH, SUNLENG
User Support Network
Coordinator

TRAN, LISA
Case Coordinator-Rite

TRAN, TRANG-ANH
Workforce Development
Coordinator-Rite

TREJO, OSCAR A.
Maintenance Supervisor

TRINH, LAN X.
Bilingual Assistant Job Developer

TRUITT, JAMES D.
Instructional Associate I

TUNSTILL, KAYE
Senior Clerk

USELTON, JOAN A.
Senior Clerk

VALLADOLID, NOE
Instructional Assistant

VAN TILBORG, RENE N.
College Police Shift Supervisor

VARDEMAN, BEVERLY K.
Division Secretary

VAUGHN, DARA
Senior Clerk

VAUGHN, JANICE K.
Buyer

VIRAMONTES, CONSUELO
Purchasing Clerk

VIRAMONTES, RICHARD
Custodian

VOELKER, SCOTT H.
Programmer Analyst

VOS, RONALD
Grounds Maintenance Worker

VU, MINH
Case Coordinator-Rite

VU, THOMAS H.
Offset Press Operator

WADE, CHERRI
Senior Clerk

WARE, BARBARA A.
Locker Room Attendant

WATSON, DIANA C.
Secretary

WATSON, GABRIEL
User Support Network
Coordinator

WATTS, DEBRA J.
Child Development Specialist

WEBB, WILLIAM C.
Student Activities Advisor

WHEELER, STEPHEN D.
Grounds and Transportation
Manager

WHITFIELD, MICHELLE
Assistant Director, Workforce
Development

WHITTED, BARBARA A.
Communications Assistant II

WILDER, CAROL J.
Data Processing Technician

WILEY, KARLA K.
Administrative Secretary

WILLIAMS, CHERYL
Custodian

WILLIAMS, GARY
Student Resources/Program
Specialist

WILLIAMS, GLORIA
Deaf Services Specialist

WILLIAMS, MICHELLE M.
Financial Aid Technician

WILLIAMSON, CECILIA
College Police Officer

WILLIAMSON, LUCINDA
Child Development Specialist

WILLSON, SHANNON B.
Division Secretary

WOLFE, KARON A.
Senior Clerk

WOLFSLAU-BRETT, LINDA S.
Senior Clerk

WOODWARD, JANNA
Senior Clerk

WRIGHT, STEVEN S.
Custodian

WYANT, LILLIAN L.
Executive Assistant to
Superintendent/President

**YARBROUGH, CHARLOTTE
A.**
Senior Clerk

YBARRA, ANTONIO
User Support Network
Coordinator

YENTCH, RICHARD
Associate Director, Financial Aid

YURKSITIS, HILDA
Assessment Technician

ZAMARRIPA, MAGDALENO
Truck Driver

ZEILINGER, WILLIAM
Graphic Design Specialist

ZEPEDA, BLANCA
Bilingual Counselor Assistant

ZORN, KATHY
Mentor Coordinator, Title V/
Office Assistant

ZORN, LARRY M.
Skilled Maintenance Worker

ZUNIGA, LIZBETH
Instructional Assistant

ALBERT, RONALD E.
A.A., College of the Sequoias
B.A., California State University,
Long Beach
M.L.S., University of California,
Los Angeles

ALEXANDER, LEAMON
A.A., Trade Technical College,
Los Angeles

ALEXANDER, MARIAN R.
A.B., M.A., University of
Southern California

ALLEN, MYRON S
B.S., M.E., Tufts College
M.A., Ed.D., University of
Southern California

ANDREASEN, GRANT
B.S., Utah State University
M.A., California State University,
Long Beach

ARMSTRONG, GEORGE A.
B.S., O.D., Pacific University,
Oregon
M.A., California State
University, Long Beach

ATWOOD, WRIGHT M.
B.A., Whittier College
M.A., California State University,
Long Beach

BAIRD, THEODORE A.
B.A., University of California, Los
Angeles
M.A., California State University,
Long Beach

BALINT, MARILYN G.
R.N., Queen of Angels Hospital,
Los Angeles
B.S., M.S., California State
University, Los   Angeles
Ed.D., Nova University

BALLARD, ELLEN
B.S., M.A., University of Southern
California

BARGER, BOB D.
B.A., Augustana College
M.A., University of Iowa
Ph.D., University of Southern
California

BARNES, C. DOUGLAS
B.S., M.S., University of Utah
Ph.D., University of California
Fifteen years' experience as a
research scientist and supervisor
of scientific research

BARNES, WILLIAM C., JR.
B.S., Pepperdine College
M.A., California State
University, Los Angeles

BEALL, V. BRUCE
A.B., William Jewell College
M.A., University of Southern
California

BECK, VERLA A.
B.S., M.S., California State
University, Dominguez Hills

BECKER, GEORGE L.
B.A., University of California,
Santa Barbara
M.A., Teachers College,
Columbia University

BENSON, RICHARD E.
B.A., University of California,
Santa Barbara
M.A., California State University,
Long Beach

BENSON, ROBERT M.
B.A., M.A., University of
Michigan

BERND, ELIZABETH D.
A.A., B.A., University of
California, Los Angeles
M.A., Pacific Oaks College

BETHEL, MERCEDES
A.A., Long Beach City College
B.V.E., California State
University, Los Angeles

BIARD, FORREST R.
B.S., U.S. Naval Academy
M.S., Ohio State University

BINKOFF, JOAN F.
B.A., M.A., California State
University, Long Beach

BIXBY, AUDREY R.
R.N., Highland School of
Nursing, Oakland, California
B.V.E., California State
University, Long Beach

BROOK, MARY P.
B.S., Louisiana State University
M.A., San Jose State University

BROWN, GILLIS E.
 A.A., Weatherford College,
Weatherford, Texas
B.S., North Texas State
University, Denton
M.A., University of California,
Santa Barbara

BROWN, JERRY M.
B.A., San Jose State University
M.A., California State University,
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Ph.D., University of Southern
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B.S., Hampton Institute
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BROWN, MARGIE N.
LAC/USC Medical Center,
Diploma
B.S., M.S., California State
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BRUCE, PHILIP L.
B.S., M.S., Massachusetts
Institute of Technology

BUCK, JEANNE T.
B.A., New York University
M.S., Boston University

BUNDY, F. ALLEN
B.A., M.A., California State
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BURNE, KEVIN G.
B.A., University of California, Los
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M.S., M.A., Ph.D., University of
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CAESAR, HERBERT M.
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CARTER, KENNETH
B.A., M.A., Yale University

CASHMAN, THOMAS J.
B.A., M.A., California State
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A.A., Orange Coast City College
B.A., M.Ed., Whittier College
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B.A., University of Southern
California
M.S., George Washington
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B.S., Bishop College
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M.A., New York University
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Study of Human Sexuality, San
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B.A., University of California, Los
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A.A., Long Beach City College
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University, Long Beach

CRAWFORD, HELEN D.
B.S., University of Nebraska
M.S., University of Southern
California

CRIGGER, BENNY L.
B.A., California State University,
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CUNNINGHAM, CHARLES O.
B.S., M.A., Stanford University

CURL, BEVERLY A.
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CURTIS, CHARLES M.
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B.S., M.S., University of Southern
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DAVID, ERIC
B.V.E., M.A., California State
University, Long Beach
Thirty-four years' experience in
electrical field

DAVIS, FREDERICK L.
University of California, Los
Angeles
Twelve years' experience as a
technician and field representative
in electronics

DAVIS, MERLE K.
B.A., M.A., California State
University, Long Beach

DAVIS, ROBERT G., JR.
B.S., University of Illinois
M.B.A., University of California,
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B.S., U.S. Naval Academy
M.A., California State
University, Fullerton

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B.A., Pomona College
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B.A., Gujarat University, India
M.A., (Theatre) University of
Southern California
M.A., (Film) University of
Southern California

DESMOND, MARYANN C.
B.A., Marymount College
M.S., University of Notre Dame
M.S., California State
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Ph.D., University of Southern
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M.A., University of California,
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R.N., University of Michigan
B.S., Wayne State University
M.A., Columbia University

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B.A., M.S., University of
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DRAGO, ALFRED A.
B.A., Park College
M.A., Harvard University

EATON, BUDD E.
University of California,
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B.V.E., California State
University, Long Beach
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diesel repair and maintenance

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FORD, FRANCES M.
B.A., University of Minnesota

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B.V.E., M.A., California State
University, Long Beach
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aircraft mechanics

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Reading Specialist Credential

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B.S.E., University of Kansas
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Library Science
M.S.E., University of Southern
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B.S., Johnson C. Smith
University, Charlotte, North
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M.A., Loyola University at Los
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GEACH, WILLARD L.
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Seven years' experience in
cooking, meat cutting and baking

GENTRY, MARION B.
B.V.E., M.A., California State
College, Los Angeles
Fourteen years' experience in
engineering

GEYER, JOHN E.
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B.A., M.A., Michigan State
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radiologic technology

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Eleven years' experience as a
radio engineer and electronic
technician

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Twenty-two years' experience
in auto body work

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in auto mechanics and service
manager

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HEYWOOD, ALAN B.
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B.A., M.A., California State
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HILL, JESSE C.
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M.A., Oklahoma University

INSALACO, GEORGE S.
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Five years' experience in
retail food merchandising

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B.A., M.A., University of
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M.S., University of Colorado

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B.S., University of Illinois
M.D., University of Illinois,
College of Medicine

KEATING, HENRY J.
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University
Ph.D., University of Southern
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KENDIG, THOMAS P.
University of California, Los
Angeles
Eighteen years' experience
in aircraft maintenance

KENYON, ROCHELLE S.
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University of California, Irvine
Ten years' experience
dental assisting

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experience
Diploma, Moody Bible Institute

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University of California, Irvine

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B.S., University of North
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M.S., M.B.A., University of
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University, Long Beach
Twenty-five years' experience
in construction trades

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LANDRETH, ORIAN M.
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M.A., California State
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B.A., M.A., California State
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LUOMA, IRMA
B.S., Indiana State Teachers'
College
Ed.M., Harvard University

LUPASH, CORNELIA B.
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LYNOTT, MARY
B.A., University of Illinois
M.A., Northwestern University

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B.S., University of Oregon
M.A., California State
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MALONE, RICHARD F.
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M.S., University of Wisconsin
Ed.D., University of Southern
California

MARLOTTE, GRETCHEN S.
B.A., Occidental College
M.A., Columbia University

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B.S., University of California, Los
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M.S., University of California,
Berkeley

MARTINOFF, MICHAEL M.
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B.S., University of Southern
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M.A., Pepperdine University

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Ed.D., University of
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B.A., University of California, Los
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M.A., California State University,
Long Beach
Certified T.E.S.L.

Mc FARLAND, GLENN W. JR.
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B.S., M.A., University of
Washington

McKEE, H. WILLIAM
A.S., Long Beach City College
Seven and one-half years'
experience

McMENOMY, ROBERT
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M.A., University of California,
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METZ, HERMAN E.
Nine years' experience in auto
mechanics

MEYER, ELEANOR A.
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M.A., California State
University, Long Beach
Certified Psychologist,
State of California

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A.A., Long Beach City College
B.A., M.A., California State
University, Long Beach
Ed.D., Northern Arizona
University

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B.A., University of California
M.A., University of Southern
California
Ph.D., University of Madrid

MIRIGIAN, MARTHA
B.S., M.S., University of
Southern California

MISENER, CAROLINE W.
A.A., Long Beach City College
B.V.E., California State
University, Long Beach
University of California,
Los Angeles
Duke University Nursing
School
Seven years' experience in
Medical Assisting

MIZE, JOHNNY M.
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California, Berkeley
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University

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New Mexico Highlands
University
Twenty years' industrial
experience related to aircraft

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M.A., California State
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Ed.D., Texas A&M University

PENDLETON, BILLY L.
B.A., California State
University, Long Beach
M.S., University of Southern
California

PETERSON, JOHN E.
B.A., M.A., California State
University, Long Beach

PHELAN, HURBERT S.
University of Detroit
B.V.E., California State
University, Long Beach
Thirty-six years' experience
automotive and aircraft
engineering

PHIPPS, ROBERT P.
B.S., Northwest Missouri State
Teachers College
M.S., California Institute of
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PIBEL, DAVID M.
B.S., M.A., Central Missouri
State College
M.L.S., University of
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PINCKARD, J. HOWARD
B.E., M.E., Arizona State
College
Ph.D., California Institute of
Technology

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University
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University, Los Angeles

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Denver

PUTNAM, GLENN D.
B.A., University of Redlands
M.S.W., University of
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M.A., Webster University,
St. Louis

RAMAN, GOPAL
B.A., University of Madras
M.S., University of Massachusetts
M.B.A., Western New England
College

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B.S., A.B., University of
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B.S., California State University,
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California

ROQUET, ERROLL P.
B.A., Pennsylvania College
B.S., M.S.E., University of
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B.S., M.S., Northwestern
University

RUWE, VICTOR W.
Diploma, I.C.S., Building
Construction
B.V.E., California State
University, Long Beach
Twenty years' experience in the
building construction industry as
journeyman, foreman and
superintendent

SABIN, HELEN M.
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M.A., University of Northern
Colorado, Greeley

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M.A., California State
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Ed.D., University of Southern
California

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B.S., Central Missouri State
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M.A., California State
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M.S., University of Utah
Ph.D., Washington
University

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B.S., M.A., California State
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B.S., Eureka College
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M.A., M.F.C.C., California Family Study Center

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