Chaffey College

1883 - 2010

Providing quality education since 1883.

5885 Haven Avenue, Rancho Cucamonga, CA 91737-3002
909/652-6000 • website: www.chaffey.edu
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Catalog 2009-2010
Chaffey College
On behalf of the Governing Board and all of the Chaffey College faculty and staff, we welcome you as a student to this college, one of the first to be established in California. Chaffey College was founded in 1883 as the vision of George and William Chaffey, who also founded the city of Ontario.

You are taking an important first step on the path to your future. Whether you are upgrading your work skills, seeking to transfer to a four-year college or university, or plan to earn an associate degree or occupational certificate, you will find caring and highly qualified faculty and staff to assist you.

Chaffey’s mission is to provide a comprehensive, student-centered community college education. We are committed to providing quality educational opportunities to all who can benefit thanks to our excellent faculty and staff. Utilize your time well and we will do our part to make your educational journey a successful one.

Best wishes in your educational endeavors.

Sincerely,

Henry D. Shannon, Ph.D.
Superintendent/President
COMMUNICATION
Students will demonstrate effective communication and comprehension skills. Examples will include, but are not limited to the following:

- Comprehend, analyze, and respond appropriately to oral, written and visual information.
- Effectively communicate/express information through speaking, writing, visual and other appropriate modes of communication/expression.

CRITICAL THINKING AND INFORMATION COMPETENCY
Students will demonstrate critical thinking skills in problem solving across the disciplines and in daily life. Examples will include, but are not limited to the following:

- Identify vital questions, problems, or issues and evaluate the plausibility of a solution.
- Analyze, compose and assess the validity of an argument.
- Compute and analyze multiple representations of quantitative information, including graphical, formulaic, numerical, verbal and visual.
- Compare, contrast and analyze scientific concepts and scientific observation.
- Select, analyze and evaluate the accuracy, credibility, relevance and reasonableness of information and its sources.

COMMUNITY/GLOBAL AWARENESS AND RESPONSIBILITY
Students will demonstrate knowledge of significant social, cultural, environmental and aesthetic perspectives. Examples will include, but are not limited to the following:

- Identify the social and ethical responsibilities of the individual in society.
- Demonstrate commitment to active citizenship by recognizing and evaluating important social, ecological, economical and political issues.
- Demonstrate an understanding and appreciation for individual, social and cultural diversity.

PERSONAL, ACADEMIC AND CAREER DEVELOPMENT
Students will assess their own knowledge, skills and abilities; set personal, educational and career goals; work independently and in group settings; identify lifestyle choices that promote self-reliance, financial literacy and physical, mental and social health. Examples will include by are not limited to the following:

- Demonstrate professional and ethical responsibilities of the individual.
- Identify personal, academic, psychological, and social needs, determine resources and access appropriate services.
- Develop, implement, and evaluate progress towards achieving personal goals, academic goals, career goals and career resilience.
SCHOOLS AND SERVICES OF THE COLLEGE

OFFICE OF INSTRUCTION AND STUDENT SERVICES
Sherrie Guerrero, Vice President

ATHLETICS AND PHYSICAL EDUCATION
Robert Olivera, Dean

COUNSELING AND MATRICULATION
Lori Waite, Dean

SCHOOL OF INSTRUCTIONAL SUPPORT
Laura Hope, Interim Dean

SCHOOL OF LANGUAGE ARTS
Michael Dinielli, Interim Dean

SCHOOL OF MATHEMATICS AND SCIENCE
Terrence Giugni, Dean

SCHOOL OF SOCIAL AND BEHAVIORAL SCIENCES
Frank Pinkerton, Interim Dean

SCHOOL OF VISUAL, PERFORMING, AND COMMUNICATION ARTS
Michael Dinielli, Interim Dean

SCHOOL OF BUSINESS AND APPLIED TECHNOLOGY
Sidney Burks, Dean

SCHOOL OF HEALTH SCIENCES
Teresa Hull, Dean

INSTITUTIONAL SERVICES
Inge Pelzer, Executive Assistant to the Superintendent/President

CHINO CAMPUS
Linda Howdyshell, Vice President/Chief Administrative Officer, Chino Campus

FONTANA CAMPUS
Eric Bishop, Director, Fontana Campus

STUDENT ACTIVITIES
Susan Stewart, Director

LIBRARY
Frank Pinkerton, Associate Dean

SCHOOLS AND SERVICES OF THE COLLEGE
GENERAL INFORMATION

THE DISTRICT

The college district serves the population of the inland empire of western San Bernardino County, where the communities of Chino, Chino Hills, Fontana, Guasti, Montclair, Mt. Baldy, Ontario, Rancho Cucamonga (Alta Loma, Cucamonga, and Etiwanda), and Upland are located. Four districts serving high school students are contained within these communities. They are the Chaffey Joint Union High School District, the Chino Unified School District, the Fontana Unified School District, and the Upland Unified School District.

THE COLLEGE

ACCREDITATION

Chaffey College is a two-year public community college and is accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges (10 Commercial Blvd., Suite 204, Novato, CA 94949, (415) 506-0234), an institutional accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation and the U.S. Department of Education. Chaffey is a member of the American Association of Community Colleges, the Community College League of California, Service Members Opportunity Colleges (SOC), the Consortium of Southern California Colleges and Universities, and is approved by the Office of Private Post-Secondary Education for Veterans Benefits. Chaffey’s next reaffirmation for accreditation is scheduled for Spring 2010.

HISTORY

Chaffey College represents the vision of George and William Chaffey, who founded the City of Ontario in the last quarter of the nineteenth century. Recognizing the need for an institution of higher learning, the Chaffey brothers donated land and established an endowment for a private college known as the Chaffey College of Agriculture. On March 17, 1883, the cornerstone of the college was laid at Fourth Street and Euclid Avenue in Ontario. Due to meager financial resources, the college became an extension of the University of Southern California and then closed for a brief period in the early 1900’s. In 1906 the Chaffey endowment was legally separated from the University of Southern California and the reorganized Chaffey Union High School District became the beneficiary of the College Trust.

In 1916 the Chaffey Junior College of Agriculture was added as a postgraduate department to the high school. A separate junior college district was created in 1922 and in 1957 bonds were approved in support of a complete separation of the high school and college facilities. Property was acquired in Alta Loma and a long-anticipated new college opened its doors in the spring of 1960. Passage of Measure L ($230 million) in 2002 is enabling the college to construct and renovate a number of buildings on the Rancho Cucamonga, Chino, and Fontana Campuses.

CURRICULUM

The college has six schools which provide an extensive range of the highest quality transfer and occupational courses: Business and Applied Technology; Health Sciences, Language Arts; Mathematics and Science; Social and Behavioral Sciences; and Visual, Performing, and Communication Arts. Student Services provides additional instruction in physical education, athletics, cooperative education, disability programs, and guidance. The college also provides many excellent student support services including student success centers, transfer counseling, career planning assistance, job placement, financial aid, health care, child care, and help in housing and transportation.

SCHOOLS AND SERVICES

Student Equity

The College offers lower division courses for students who plan to transfer to a four-year college or university, occupational courses for students who wish to acquire or improve employment skills, and general education courses to provide all students with an awareness of the cultural diversity of our nation and the world. Transfer programs are designed to meet the lower division requirements of four-year colleges and universities and to develop the skills essential to success in upper division courses. General education courses are articulated with comparable university courses to assist students in meeting transfer requirements.
These courses introduce students to a variety of academic disciplines and acquaint them with the assumptions and theoretical bases fundamental to each discipline.

Occupational programs are continually updated to reflect current industry requirements. Interaction with community leaders, advisory committees, and with business, industry and public service organizations ensures that students are kept apprised of developments in employment trends.

Finally, noncredit courses are provided for students wishing to learn English as a Second Language or to improve basic academic skills in math, English, and reading. Noncredit instruction is provided primarily through the seven college Success Centers, which also serve as the college’s primary resource for supplemental instruction and learning assistance.

**Degrees**

Students who successfully complete the requirements for graduation are awarded Associate in Arts and Associate in Science degrees. Students who complete the requirements of selected programs receive Certificates of Achievement.

**College Year**

Chaffey College is organized on the semester system. The academic year includes two 17 1/2-week semesters, Fall and Spring, which run from August through May, plus a summer session. Courses offered in the various terms are similar in scope and maintain equivalent standards. The academic calendar for the 2009-2010 college year appears in the back of this catalog.

In addition to the regularly scheduled 17 1/2-week classes, intensive short-term classes are offered. Some open-entry, open-exit classes allow for flexible scheduling, as does the growing number of online sections.

Day and evening classes are available for full-time and part-time students. Daytime classes are scheduled from 6:30 a.m. to 4:30 p.m. Monday through Friday. Evening classes usually begin at 5:30 p.m. Monday through Friday. Some classes may meet on Saturday and/or Sunday. Field trips are scheduled outside the normal class meeting time and may include weekends.

**Faculty**

The faculty is comprised of dynamic and committed professionals who have completed the rigorous educational requirements set forth by the State of California. Each faculty member has demonstrated subject matter competency, the ability to teach that subject matter, and a commitment to remain current in his/her field.

Special efforts have been made to recruit a faculty that is sensitive to and prepared to work with a diverse student population.

Faculty members come from all over the world. They make numerous contributions to the communities in which they reside and to the teaching profession. They are leaders of business, industry, and the arts; prize-winning scientists and writers, technical experts, scholars, and instructors. They have worked in every field from accounting to zoology at every level of education and share their rich experience with their students.

**Facilities**

Chaffey College rests at the base of the San Gabriel Mountains rambling over 200 acres of man-made and natural vegetation. It is a college that provides excellent post secondary educational opportunities to a service area in excess of 798,355 residents.

An array of facilities support the academic mission of the college including science, engineering, modern language, and reading laboratories that meet the standards of occupational education. The Wignall Museum of Contemporary Art and the Chaffey College Theatre offer opportunities for both fine and performing arts. The museum and theatre are unique resources for both the college and the community. The college also has facilities for broadcasting, drafting, photography, and graphic arts as well as a gymnasium, swimming pool, fields for competitive and recreational sports, a student center and lounge, cafeteria, bookstore, a network of student success centers, an online assessment center, and a Child Development Center where children of student-parents receive care. The college is also well served by a library/learning resources center.

Other facilities include off-campus centers that support the academic and services functions of the college. One such facility is the Learning Development Center, which provides vocational training and support programs and services for students with physical, developmental, or learning disabilities.

The District offers a strong program of community-based education that is delivered primarily through the Chaffey College Campuses in Chino and Fontana. Using the Chino and Fontana Campuses as a community base, students have access to a myriad of classes that are an extension of the college.

Passage of Measure L ($230 million) in 2002 is enabling the college to construct and renovate a number of buildings on the Rancho Cucamonga, Chino, and Fontana Campuses. Completed projects on the Rancho Cucamonga Campus include the Marie Kane Center for Student Services/Administration, Don Berz Excellence Building, Science Complex, and Central Plant. Other projects include the Physical/Life/Health Science renovation, Visual and Center for the Arts, new gymnasium, and the gym renovation project. The Fontana Campus includes the Fontana Center and the Ralph M. Lewis Center. The District is currently awaiting DSA approval of the plans for a third building in Fontana, and construction of a new parking lot in Fontana began on May 27, 2009. The new Chino Campus Main Instructional Building opened for the Spring 2008 semester, and the Health Science and Community Center buildings opened in Spring, 2009. Chino is also the home of the Robert Pile Information Technology Center which houses the Computer Information Systems and Industrial Electrical Technology programs. The Chino Educational Center currently houses the Workforce Preparation program.

There are also a number of landscaping projects that have been completed and several currently in progress to beautify all of the campuses. We are especially pleased with the completion of the Agricultural Demonstration Garden which consists of a two acre vineyard and one acre citrus grove located at the southeast corner of Haven and Wilson Avenue. Other projects include the expansion and renovation of our parking lots.
GENERAL INFORMATION

CHAFFEY COLLEGE CHINO CAMPUS
College Park
5897 College Park Avenue, Chino

The Chaffey College Chino Campus includes five buildings: three of which are at the College Park location and two buildings are at the downtown Chino location. The campus provides a full array of student services including admissions, cashiering, financial aid, academic counseling, and a full service bookstore. Students have access to two Student Success Centers – one a discipline specific Reading/Writing Center and the other a multidisciplinary center serving students in a variety of subjects. Students are offered instruction in a multitude of general education and occupational courses. Students can complete the following courses uniquely at the Chino Campus: Vocational Nursing, Industrial Electrical Technology, CISCO, Hotel and Food Service Management, and Fashion Design/Fashion Merchandising. For additional information, call (909) 652-8000.

EDUCATIONAL CENTER
13106 Central Avenue, Chino

The Educational Center opened its doors in Spring 2000 to better serve the residents of the southwestern portion of the district. The Center hosts Chaffey College’s Economic and Workforce Development Office which offers short-term, intensive vocational training reflective of current business and industry needs. The Economic and Workforce Development Office also provides a myriad of services to local business and industry to enhance performance in the workplace including: needs assessment, performance consultation, business solutions, and development of customized training to address identified needs.

ROBERT PILE
INFORMATION TECHNOLOGY CENTER
13170 Seventh Street, Chino

The Robert Pile Information Technology Center was developed in partnership with the City of Chino Redevelopment Agency and industry partners Verizon, Enterasys, Cisco, and Gateway to provide Southern California the state-of-the-art training and education vital for its economic growth. The center is designed to meet the needs of the information technology industry by providing a well-trained and educated workforce. Classes offered include web development, hardware repair, networking, Cisco academies (CCNA, CCNP), and industrial electrical technology. For additional information call (909) 652-8000.

CHAFFEY COLLEGE FONTANA CAMPUS
16855 Merrill Avenue, Fontana

The Fontana Center opened its doors in September 1996 to better serve the residents of the eastern portion of the district. In Fall 2007, the Ralph M. Lewis Center was added to the Fontana Campus. A third building is currently in the planning stages. The campus provides a full array of services including admissions and cashiering, financial aid, academic counseling, and a full service bookstore. Students have access to a multidisciplinary student success center and two up-to-date multipurpose computer labs. Students are offered instruction in a multitude of general education and occupational courses. For additional information call (909) 652-7400.

THE CHAFFEY COLLEGE FOUNDATION

The Chaffey Foundation, a non-profit [501(c) (3)] independent corporation, was organized and established in 1987 by friends and alumni to support the activities and programs of the College. It has become one of the most successful community college foundations in Southern California. The mission of the Chaffey College Foundation is that no individual be denied an education at Chaffey College due to a lack of financial resources. The Foundation coordinates various fundraising activities and receives all donations made to the College and the Foundation. Donations allow the Foundation to award scholarships and continue to fund dreams – one student at a time. Foundation leaders are also instrumental in forging partnerships between the college and the communities it serves. The Foundation has encouraged college and community participation in a variety of intellectual, cultural, recreational, and social activities. Anyone interested in learning how to support the Foundation’s mission and Chaffey College’s students, or any students interested in scholarship opportunities, please call (909) 652-6545.

THE CHAFFEY COLLEGE ALUMNI ASSOCIATION

Chaffey College alumni and former students continue to play a vital role in the campus community. The Chaffey College Alumni Association exists to showcase the successes of alumni and to celebrate Chaffey’s rich history, traditions, and accomplishments in order to ensure Chaffey’s reputation continues to grow. The Association promotes the interests and goals of alumni and former students and offers opportunities for meaningful involvement with the college through Association membership, regular communication, and special events. Alumni and former students are encouraged to get involved with the Alumni Association and show their Panther Pride; please contact the Alumni Office at (909) 652-6541 or via email at alumni@chaffey.edu.
MATRICULATION PROCESS

ADMISSION TO THE COLLEGE

All high school graduates, anyone who has a Certificate of Proficiency or a G.E.D., and anyone 18 years of age or older who can benefit from a course of study are eligible for admission.

High school students and residents of other states and foreign countries may apply under special regulations. See sections on High School Dual Enrollment or International Students for more information.

APPLICATION

Applications may be submitted online by visiting Chaffey’s website at www.chaffey.edu and clicking on the Application link. Online application is not available for International Students. International students must contact the International Student Office in WH-181 on the Rancho Cucamonga campus or check the program’s website at www.chaffey.edu/international prior to beginning the application process.

WHO MUST APPLY

Applicants who will attend Chaffey College for the first time (new students), or former students who have not attended for one or more terms (returning students) must complete an application for admission.

Official college transcripts from schools previously attended must be submitted for:

1. Students who plan to graduate or complete a certificate at Chaffey College, and/or transfer to a four-year college
2. Veterans receiving educational benefits
3. Students who plan to apply for the radiologic technology, registered nursing and vocational nursing programs
4. Students needing to show completion of course prerequisites
5. Students who have earned an associates degree or higher for exemption from assessment, orientation, and counseling

Official high school transcripts must be submitted for:

1. Students who plan to apply for the radiologic technology, registered nursing, and vocational nursing programs (GED or high school proficiency in lieu of transcript).
2. All high school students

Release of Transcripts to Other Institutions:

Chaffey College is not permitted to make copies of or release transcripts from high schools or other colleges.

ASSESSMENT, ORIENTATION, COUNSELING

All new students are required to participate in assessment and orientation prior to registering for classes. These services include reading, writing, and mathematics testing, and a presentation on college programs and services. Students are encouraged to meet with a counselor within their first six months at Chaffey College.

With the assistance of a counselor, students develop an educational plan that includes required classes to achieve their educational and career goals. Students may be exempt from portions of these services or may choose not to participate. Contact the Counseling Department for appointments and details.

PHOTO I.D. CARD

Chaffey College Photo ID cards are required for use of labs, library, and other services. Students are encouraged to secure their Photo ID card prior to the beginning of the term and must show proof of current enrollment to receive a Photo ID card.

SCHEDULES OF CLASSES

The schedule of classes is available prior to each registration period and contains detailed information concerning enrollment, registration, and related deadlines. All continuing students are mailed a schedule for use in registering for classes. Prospective students may obtain schedules at most student service areas of the Rancho Cucamonga Campus and at the Chaffey College Chino and Fontana Campuses. Schedules are also provided to high schools and public libraries within the college district. In addition, schedules are posted on the Chaffey College website at www.chaffey.edu.

REGISTRATION

First-time Chaffey students will receive their registration date via e-mail after submitted their online application via CCCApply. Continuing Chaffey students will receive information about how to access their registration date by e-mail and/or by regular mail. Students may register online on or after their assigned registration date. Students may also register during Open Registration or Late Registratin at the Rancho Cucamonga, Chino or Fontana campuses. High school students participating in the High School Partnership Program are required to register in person.

REGISTRATION DATE ASSIGNMENT

Continuing students are assigned registration dates according to the total number of units completed up to 90 units. This includes transfer units from other academic institutions. The higher the number of units (up to 90 units), the earlier the assigned registration date. However, after the continuing student acquires 90 units, they drop in priority and are assigned the last day of registration for the continuing student category.

New, returning, and high school students receive registration dates after continuing students. Registration dates for students in these categories are based on the date the admission application was submitted.

PRIORITY REGISTRATION

Students with physical or health disabilities who are unable to attend regular registration or who need to have classes scheduled around disability related concerns must contact Disability Programs and Services, (909) 652-6379, to receive authorization to register at Priority Registration. Special accommodations are arranged for assessment, orientation, and counseling, as needed.

Priority registration is also available for students that meet specific requirements and who obtain appropriate authorization. Priority registration takes place prior to the start of regular registration.

ALTERNATE CHOICE OF CLASSES

It is recommended that students prepare an alternate list of classes to fit their schedule in the event their first choice is not available. Classes are filled on a first-come basis. A list of open classes is available throughout the registration period. The open class list is available on Chaffey’s website at www.chaffey.edu.

CLOSED CLASSES AND WAIT LISTS

If a desired class is closed, the student may register in an alternate class or request to be placed on the wait list. Wait lists are only available on specific dates and can be accessed via My ChaffeyVIEW online system. Wait lists are limited to 20 students. A student must attend the first class meeting to be considered for admission to a closed class.

UNITS

Students may register for a maximum of 18 units during fall/spring terms and 7 units during summer term using online registration; exceptions must be approved by a counselor. During late registration, students can add an unlimited number of units.
LATE REGISTRATION
During the first week of late registration for the fall/spring terms, students may register for any open class without the instructor’s permission. Students must obtain instructors permission to register for a closed class. During the second and third weeks of late registration, students must have instructor’s permission to add any class. Instructor’s permission is granted by issuing an Add Code. High school students, students with special petitions, financial restrictions, co-requisite waivers and students who are auditing must register in person. The late registration period for the summer term is addressed in the schedule of classes. Students are not permitted to add classes after the late registration deadline.

MULTIPLE ENROLLMENT
Students may not enroll in more than one section of any course that is not repeatable in the same term. Students will not be permitted to register for classes that are scheduled to meet at the same time or at overlapping times; however students may wait list for a class that overlaps another.

ATTENDANCE AT THE FIRST CLASS MEETING
Students who do not attend the first meeting of each class in which they are registered may be dropped from the class. However, it is each student’s responsibility to officially drop any class they do not attend or stop attending. This includes all instructional formats, including online and hybrid classes.

LIMITATIONS ON ENROLLMENT
Chaffey College offers some courses which place limitations on enrollment. These limitations may include successful completion of courses, preparation scores for math and English, performance criteria or health and safety conditions. Students who do not meet the conditions imposed by these limitations may be unable to register for or may be dropped from class.

PRECOLLEGIATE BASIC SKILLS LIMITATIONS
Chaffey College limits the number of units students can earn for precollegiate basic skills courses to 30 semester units. Precollege/basic skills courses are defined as those two or more levels below college level English and one or more levels below elementary algebra. English as a Second Language and students with disabilities are exempted from this limitation. The college may approve a waiver of the limitation on foundational course work with respect to any student who shows significant, measurable progress toward the development of skills appropriate to his or her enrollment in college-level courses. Waivers are only given for specified periods of time and for specified numbers of units. Contact the Mathematics, English, English as a Second Language, or Reading Departments or the Disability Programs and Services Office for more information.

PREREQUISITES AND ENFORCEMENT
When a course has a prerequisite, it means that a student must possess a certain body of knowledge to be successful in the course. The preexisting knowledge may be a skill, an ability, a placement preparation score, or successful completion of a course. Completion of a prerequisite course requires a grade of C or better or a grade of CR (credit) or P (pass).

Students are responsible for meeting prerequisites as stated in the class schedule and college catalog. See a counselor for assistance in determining eligibility for a specific class. Students who do not meet stated prerequisites may be unable to register for or may be dropped from the class.

The college’s registration process allows for prerequisite checking by computer. Students attempting to enroll in the computer-checked courses will be blocked from registration if they do not meet the specified prerequisites. Prerequisites are listed in the course descriptions within the schedule of classes and the college catalog.

Assessment results from other colleges may not be used to meet prerequisites, so new students must arrange to take Chaffey’s assessment testing prior to registration. Students who have completed prerequisite courses at another college or in high school must bring a copy of their transcripts from that institution to the Counseling Department, and complete a Prerequisite Validation Form prior to registration.

Students challenging a prerequisite must submit a Prerequisite/Corequisite Challenge form. The form must be signed by a counselor and filed in the Counseling Department prior to the last day to add for the section in question.

Prerequisite/Corequisite Challenge Process:
1. Complete the Prerequisite/Corequisite Challenge form and attach documentation to establish your right to challenge this prerequisite/corequisite request. Examples of documentation include official or unofficial high school and/or college transcripts, international transcripts, certificates, test scores, etc.
   a) Identify the course in which you wish to register and the prerequisite/corequisite you wish to challenge.
   b) If you are attempting to use high school coursework to meet a course prerequisite, attach a copy of your high school transcript to verify the coursework completed.

2. Meet with a counselor in the Counseling Department to assess whether you will benefit from the challenge process.
   a) The counselor will sign the form.
   b) The specialist in the Counseling Department will enter the prerequisite/corequisite course. This will allow you to register in the course.

3. Register during the registration period.
4. The Counseling Department staff will submit the Prerequisite/Corequisite Challenge form with documentation to the referral area (school/department indicated on the form).
5. The department coordinator will resolve the challenge within three (3) working days.
6. You will be notified by phone and mail on a denied challenge decision.
7. On approved challenge decisions, you will be notified by mail. You will be allowed to stay in the class.

PREREQUISITE/Corequisite Challenge:
Prerequisites for courses will be enforced according to college policy. Students have the right to challenge prerequisites on the following grounds:
1. A prerequisite for a course necessary for graduation, transfer, or a certificate is not offered and the unavailability of that prerequisite poses a hardship.
2. The prerequisite has not been validated.
3. The student has the knowledge or ability to succeed in the course despite not meeting the prerequisite.
4. The prerequisite is discriminatory or being applied in a discriminatory manner.
5. The prerequisite is not required due to external regulations.

The student must provide appropriate documentation when filing a challenge. Documentation may include, but is not limited to, high school or college transcripts, additional test results, work experience, or writing sample. Prior enrollment in the course does not exempt a student from the current prerequisite of that course.

Students challenging a prerequisite must submit a Prerequisite/Corequisite Challenge form. The form must be signed by a counselor and filed in the Counseling Department prior to the last day to add for the section in question.

Prerequisite/Corequisite Challenge Process:
1. Complete the Prerequisite/Corequisite Challenge form and attach documentation to establish your right to challenge this prerequisite/corequisite request. Examples of documentation include official or unofficial high school and/or college transcripts, international transcripts, certificates, test scores, etc.
   a) Identify the course in which you wish to register and the prerequisite/corequisite you wish to challenge.
   b) If you are attempting to use high school coursework to meet a course prerequisite, attach a copy of your high school transcript to verify the coursework completed.

2. Meet with a counselor in the Counseling Department to assess whether you will benefit from the challenge process.
   a) The counselor will sign the form.
   b) The specialist in the Counseling Department will enter the prerequisite/corequisite course. This will allow you to register in the course.

3. Register during the registration period.
4. The Counseling Department staff will submit the Prerequisite/Corequisite Challenge form with documentation to the referral area (school/department indicated on the form).
5. The department coordinator will resolve the challenge within three (3) working days.
6. You will be notified by phone and mail on a denied challenge decision.
7. On approved challenge decisions, you will be notified by mail. You will be allowed to stay in the class.

PREREQUISITE/Corequisite Challenge:
Prerequisites for courses will be enforced according to college policy. Students have the right to challenge prerequisites on the following grounds:
1. A prerequisite for a course necessary for graduation, transfer, or a certificate is not offered and the unavailability of that prerequisite poses a hardship.
2. The prerequisite has not been validated.
3. The student has the knowledge or ability to succeed in the course despite not meeting the prerequisite.
4. The prerequisite is discriminatory or being applied in a discriminatory manner.
5. The prerequisite is not required due to external regulations.

The student must provide appropriate documentation when filing a challenge. Documentation may include, but is not limited to, high school or college transcripts, additional test results, work experience, or writing sample. Prior enrollment in the course does not exempt a student from the current prerequisite of that course.

Students challenging a prerequisite must submit a Prerequisite/Corequisite Challenge form. The form must be signed by a counselor and filed in the Counseling Department prior to the last day to add for the section in question.

Prerequisite/Corequisite Challenge Process:
1. Complete the Prerequisite/Corequisite Challenge form and attach documentation to establish your right to challenge this prerequisite/corequisite request. Examples of documentation include official or unofficial high school and/or college transcripts, international transcripts, certificates, test scores, etc.
   a) Identify the course in which you wish to register and the prerequisite/corequisite you wish to challenge.
   b) If you are attempting to use high school coursework to meet a course prerequisite, attach a copy of your high school transcript to verify the coursework completed.

2. Meet with a counselor in the Counseling Department to assess whether you will benefit from the challenge process.
   a) The counselor will sign the form.
   b) The specialist in the Counseling Department will enter the prerequisite/corequisite course. This will allow you to register in the course.

3. Register during the registration period.
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1. A prerequisite for a course necessary for graduation, transfer, or a certificate is not offered and the unavailability of that prerequisite poses a hardship.
More information including the appropriate form for challenging a prerequisite is available through the Counseling Department and the Chaffey College website. Questions regarding the challenge process should be directed to the Counseling Department at (909) 652-6200.

**COREQUISITE**
When a course has a corequisite, it means that a student is required to take a course at the same time as another course. Knowing the information presented in the corequisite course is considered necessary for a student to be successful in the course.

If a student would like to challenge a corequisite, follow the same procedure as challenging a prerequisite.

**LIMITATION ON ENROLLMENT**
A limitation on enrollment, such as a TB test, CPR certification and others, etc., is a non-course requirement for entry into a course or educational program, without which a student will not be permitted to remain in the selected course or program. These requirements are frequently (but not always) driven by health and safety regulations and/or mandates by outside accrediting/licensing agencies.

**ADVISORY**
An advisory is defined in Title 5, section 55200 as: “A condition of enrollment that a student is advised, but not required, to meet before or in conjunction with enrollment in a course or educational program.” Since an advisory is not required, students will not be blocked from enrolling in a class if they do not meet the conditions of the advisory.

**COUNSELING AND MATRICULATION**
Students are encouraged to meet with a counselor within their first six months at Chaffey College to develop a Student Educational Plan (SEP). Counselors will recommend appropriate coursework based on assessment results, review of previous college work and other information provided by the student. Appointments for an individual meeting with a counselor can be made by calling the Counseling Department at (909) 652-6200, or by visiting our website at www.chaffey.edu/counseling. For information on additional services provided by the Counseling Department, please refer to the Student Support Services section.

Matriculation services at Chaffey College are intended to assist students in establishing appropriate educational goals and to provide support services to help them achieve these goals. Students will be provided an evaluation of foundation skills, orientation, counseling, an educational plan, and follow-up services.

New students are required to complete assessment and orientation before their registration date. Students must see a counselor for an educational plan within their first six months at Chaffey. High School Dual Enrollment students must complete assessment, orientation, and counseling before they may register for classes.

**ASSESSMENT OF FOUNDATION SKILLS**
Assessment testing is required for placement into English, ESL, mathematics, and reading courses. Placement levels are based on a combination of test scores and other educational background information. Accommodations are available for individuals with disabilities. Chaffey uses multiple measures to place students into English, ESL, mathematics, and reading courses.

Testing facilities are available at all Chaffey campuses: specific dates and times can be obtained from the schedule of classes or by calling the Counseling Department at (909) 652-6200 or by visiting our website at www.chaffey.edu/counseling/assessment.

**RE-TESTING PROCEDURES**
Students may take the assessment test no more than twice during their enrollment at Chaffey College. Students must wait three months after their initial assessment before re-testing.

**ORIENTATION**
Orientation is available online and may be completed in the testing center at the conclusion of the assessment test. Orientation introduces students to college services and educational programs and provides information on college policies, enrollment procedures, and important deadlines. Group sessions are arranged for specific groups such as international students and ESL students. Contact the Counseling Department at (909) 652-6200 for more information or check the college website at www.chaffey.edu/counseling. Students interested in a more detailed orientation and/or instruction in college success skills may enroll in a Guidance course.

**STUDENT RIGHTS AND RESPONSIBILITIES**
Students are entitled to certain rights under matriculation procedures. These rights include: retaking the assessment test; being informed of any District investigations of complaints challenging matriculation regulations; being provided alternative services according to language or disability needs; and filing a complaint of unlawful discrimination if they feel the assessment, orientation, counseling or any other matriculation procedure is being applied in a discriminatory manner.

Matriculation requirements also include certain student responsibilities. Upon admission to the college, students must express a broad educational goal and provide transcripts from previous college work. They are encouraged to complete assessment and orientation prior to registering for classes and must develop a Student Educational Plan (SEP) with a counselor within their first six months at Chaffey College. Students are responsible for attending class, completing their assignments and coursework, and maintaining progress toward their educational goal.

**EXEMPTIONS AND REFUSAL**
Students may be exempt from matriculation services if they:
- Have earned an associate degree or higher (diploma or transcripts required), or
- Have completed certain coursework at another college (transcripts required), or
- Will enroll in one course only, with no intention of earning a degree at Chaffey, or
- Will enroll in performance/activity courses only.

Students have the right to refuse matriculation services and choose not to participate in assessment, orientation, and counseling. A student wishing to be exempt from these services based on one of the above criteria or wishing to decline participation must contact the Counseling Department to complete the necessary documentation. Students concurrently enrolled in high school and participating in the High School Dual Enrollment are not eligible for exemptions and cannot refuse matriculation services. Students who have previously chosen to refuse matriculation services may reconsider and participate at any time.

**FEES**
As a publicly supported community college, Chaffey provides low-cost education; students pay nominal fees at registration. In order for students not to be denied access to a college education, the college offers financial aid to assist with financial obligations.

Fees are assessed each term. Fees can be paid via My ChaffeyVIEW online system, fax, in person, or by mail. Fees may also be paid via the FACTS Deferred Payment Plan. For more information on the FACTS plan, please visit the website at www.chaffey.edu/cashier/facts. All fees are due at the time of registration. These include enrollment fees, health fees, College Services
fee (optional), materials fees, and if applicable, non-resident fees. Fees may be paid via cash, check, electronic check (e-check), money order, VISA, Mastercard, or Discover. Stopping payment on a check or credit card does not constitute a withdrawal from classes and will result in a $25.00 charge.

Fees are subject to change. Consult the Schedule of Classes for the most current information.

ENROLLMENT FEE (Tuition)
$26.00 per unit for California residents.

NON-RESIDENT ENROLLMENT FEE
Non-resident tuition will be charged to students who have not established residency in the State of California for a period of one year prior to the day before classes begin.

Non-Resident Enrollment Fee (U.S. Citizen) $216 per unit ($90.00 per unit, plus $26.00 per unit enrollment fee)

Non-Resident Enrollment Fee (Non-U.S. Citizen) $241.00 per unit ($190.00 per unit, plus $25.00 capital outlay charge, plus $26.00 per unit enrollment fee)

HEALTH SERVICES FEE
$17.00 Fall and Spring; $14.00 Summer. This fee funds the Student Health Services Program. Certain laboratory tests and medications may require an additional fee.

Usual clinic hours are 7:30 a.m. to 4:30 p.m., Monday through Friday. Evening appointments may be available. Services of physicians, nurse practitioners, and counselors are available by appointment by calling (909) 652-6331.

COLLEGE SERVICES FEE (Optional)
$8.00 Fall and Spring; $5.00 Summer. This fee funds Associated Students of Chaffey College (ASCC) programs and activities throughout the academic term, including (but not limited to):

- $125,000 in annual scholarships (applications are available in the Office of Student Activities at the beginning of Spring semester)
- Lectures, special cultural events, and a variety of service projects for students and the community.
- Discount tickets to major attractions
- Opportunity drawings and giveaways
- $75,000 emergency book grants
- Campus improvements
- $40,000 in department grants

PARKING (required on the Rancho Cucamonga, Chino, and Fontana Campuses)
- Auto Parking: $40.00 Fall and Spring;

$20.00 Summer;
$20.00 Fee Waiver Students
- Motorcycle Parking: $15.00
- Daily Permits: $2.00

SUPPLEMENTAL
(this is not a complete list of fees; complete list is available from the Budgeting Services Office)
- Catalog: $3.00 purchased in Bookstore; $5.00 mailed; Send request to Catalog/Schedule Coordinator
- Library materials replacement: $25.00; library materials reissuing: $15.00
- Replacement of diploma or certificate: $10.00
- Returned check fee and/or stop payment fee: $25.00
- Schedule of Classes: Free at the Rancho Cucamonga, Chino, and Fontana Campus, and at in-district public libraries: $2.00 mailed; Send request to Catalog/Schedule Coordinator.

MATERIALS FEES
Most courses require a material/instructional usage fee. Charges vary and are subject to change. Students should consult the current Schedule of Classes for fee amounts, which are noted under the appropriate class description. Material fees are due at the time of registration and are not subject to waiver.

REFUND POLICY
Refunds are issued automatically for classes dropped by the refund deadline date, cancelled classes, and BOGW (fee waiver) reimbursements. A student must officially drop or withdraw from a class before ten percent (10%) of the class length has passed to be eligible for a refund of the applicable enrollment, health, materials, college service, and non-resident tuition fees paid. Parking permits must be returned to the Cashier’s Office on or before the appropriate refund deadline to receive a refund. No refunds are issued for an enrollment change made after ten percent (10%) of the class length has passed. If the college cancels a class, students will receive a refund for the cancelled class. Students who paid for classes prior to receiving a BOGW waiver will receive a refund once their BOGW waiver is processed, however, the BOGW waiver must be processed and approved by the end of that term. There is no processing fee deduction on any refunds (California Code of Regulations, Title 5, Section 58508). Refund deadlines are printed on the student’s registration statement.

All refunds will be processed after the last day to add full term classes and will be received within 3 - 4 weeks. If payment was made with cash or check, a check will be mailed to the student’s address on record. If payment was made with a credit card, a credit will be issued on the credit card. Students must have a current address on file in the Admissions and Records Office to avoid delays in receiving refunds. Address updates can be made using My ChaffeyVIEW.

FINANCIAL RESPONSIBILITY
Student grades, transcripts, enrollment and degree verifications, diplomas, and registration privileges will be withheld pending settlement of any outstanding obligation to the college. Past due fees must be paid by cash, money order, cashier’s check, Visa, or Mastercard. Failure to pay any outstanding balances will result in the student’s name being submitted to the Franchise Tax Board for collection.

FINANCIAL AID

The Financial Aid Office administers various federal and state financial aid programs in order to ensure that Chaffey College is accessible, regardless of a student’s ability to pay for college. Financial aid services are available at all three campus locations in Rancho Cucamonga, Chino and Fontana. Hours of service may be found on the Financial Aid Office website at www.chaffey.edu/finaid and in the schedule of classes.

FINANCIAL AID PROGRAMS

The financial aid programs that Chaffey College participates in include:

- Board of Governor’s Enrollment Fee Waiver (BOGW)
- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant (SEOG)
- Federal Workstudy
- Federal Direct Loan Program
- Academic Competitiveness Grant
- Cal Grant
- Chaffey Grant for Foster Youth
- Americorps

FINANCIAL AID APPLICATION PROCESS AND DEADLINES

Students may apply for financial aid annually by completing the Free Application for Federal Student Aid (FAFSA) online at www.fafsa.ed.gov. Chaffey College’s School Code is 001163. The Chaffey College priority filing deadline is March 2nd of each year. *Students who apply for financial aid by the March 2nd priority filing deadline are given priority consideration for financial aid programs that have limited allocations and therefore, are provided the best opportunity to receive the most financial aid.
In addition to the Free Application for Federal Student Aid, students may complete a Grade Point Average Verification Form in order to be considered for the Cal Grant program. The deadline for the FAFSA Application and GPA Verification Form is March 2nd. Please refer to the Grade Point Average Verification Form for instructions for completing this form.

**VERIFICATION**

Some students who apply for financial aid are randomly selected by the Department of Education for a process called “Verification”. Students who are selected for verification are notified of any additional documents required in order to complete the verification process. Documents required for verification may include a Verification Worksheet and a Federal Tax Return or statement of benefits, etc. Students selected for verification must submit all requested documents in order for financial aid eligibility to be determined. Students who fail to comply with requests for additional documentation required for verification will not be awarded financial aid as this is a federal requirement.

**ELIGIBILITY CRITERIA**

In order to qualify for most financial aid programs, students must:

- Be enrolled in an eligible academic program such as a Certificate, Associates degree program, or Transfer program.
- Have a high school diploma or equivalent, or pass an Ability to Benefit test
- Maintain the Standards for Satisfactory Academic Progress
- Be a United States Citizen or Eligible Non-Citizen
- Not be in default on a federal student loan or owe a financial aid overpayment

**LOAN ENTRANCE/EXIT COUNSELING**

Loan Entrance Counseling is a federal requirement for all first time student borrowers at Chaffey College. Loan Entrance Counseling workshops are offered throughout the academic year to inform students of their rights and responsibilities of the Federal Student Loan Program. Date, time, and location of Loan Entrance Counseling Workshops are available in the Financial Aid Office and on the Financial Aid Office website at www.chaffey.edu/financialaid. Loan funds will not be disbursed until a student has satisfied the requirement to complete Loan Entrance Counseling.

Students who have borrowed under the Federal Family Educational Loan Program or the Federal Direct Loan Program are required to complete Loan Exit Counseling in the event that they graduate, withdraw, drop below half-time enrollment, or transfer to another college or university. Loan Exit Counseling materials will be mailed to graduated, withdrawn, or transfer students who do not satisfy this requirement by attending an Exit Counseling Workshop or completing an online Loan Exit Counseling session as this is a federal requirement.

**FINANCIAL AID DISBURSEMENTS**

All financial aid disbursements are made via electronic fund transfer (EFT). Students must provide bank account information in order for funds to be transferred into their personal bank account. Students who do not have a bank account or do not provide this information in a timely manner will be issued a free ATM account through the Chaffey Federal Credit Union for the purpose of disbursing financial aid funds. Funds may be transferred out of the Chaffey Federal Credit Union to a preferred account by contacting Chaffey Federal Credit Union.

**SATISFACTORY ACADEMIC PROGRESS**

Students who receive financial aid at Chaffey College must maintain the Standards for Satisfactory Academic Progress. The Chaffey College Standards for Satisfactory Academic Progress measure a student's qualitative and quantitative progress toward the certificate or degree program for which they are receiving financial aid. Students may lose eligibility for some aid programs for failure to satisfy the minimum qualitative and quantitative requirements as outlined in the Standards for Satisfactory Academic Progress.

It is imperative that students understand their responsibility to maintain the Standards for Satisfactory Academic Progress. Students are encouraged to meet with an academic counselor to develop a Student Educational Plan and adhere to the plan in order to ensure compliance with this requirement.

**RETURN TO TITLE IV**

In the event that a financial aid applicant at Chaffey College enrolls in coursework and then completely withdraws from all coursework, federal regulations require the Financial Aid Office to perform a calculation to determine how much financial aid a student has earned. This calculation is called a “Return to Title IV” calculation. (Title IV refers to Federal Financial Aid Programs.) The Financial Aid Office uses a federal formula to determine how much aid a student earned based on his/her last day of attendance. The Financial Aid Office performs this calculation within 45 days of the date that it became aware of a student’s withdrawn status.

In the event that a student has not earned all of the aid that was disbursed, he or she may be required to return some of the financial aid received. Students will be notified in writing of the requirement to return financial aid funds. Students who fail to repay aid as required within the established timeframe will be reported to the Department of Education and will be ineligible for financial aid at any institution until the amount owed is paid in full.

**POST WITHDRAWAL DISBURSEMENTS**

In some cases, when a Return to Title IV calculation is performed, the Financial Aid Office may determine that a student earned more financial aid than was disbursed prior to the student’s last day of attendance. In this case, a student may qualify for a “Post Withdrawal Disbursement”. The Financial Aid Office will disburse funds within 45 days of the determination that the student is eligible to receive a Post Withdrawal Disbursement. This process is in compliance with regulatory requirements that govern the federal financial aid programs.

**EXIT COUNSELING FOR WITHDRAWN STUDENTS**

Withdrawn students who have borrowed under the Federal Family Educational Loan Program or Direct Loan Program are required to complete Loan Exit Counseling and may be subject to enter repayment on their student loan, regardless of graduation status.

Financial aid recipients who may need to withdraw from classes are encouraged to discuss the consequences of their withdrawal with a financial aid advisor.

Students who fail to attend classes are not eligible for federal financial aid and must repay all financial aid funds received for the term in which they failed to attend.

**HIGH SCHOOL DUAL ENROLLMENT**

High school students may enroll at Chaffey College through dual enrollment to pursue advanced scholastic or vocational education (Education Code 48800(a)). Eligible students must have completed the 10th grade and have a minimum cumulative GPA of 2.5. New high school students (those attending Chaffey College for the first time) must complete an online application, and submit official transcripts, the High School Certification Form, the Parental Advisory Form, and the Emergency Contact/Internet Usage and Waiver of Liability Forms. Continuing high school students do not need to reapply online each semester, but must update and resubmit the forms listed above for each semester of attendance.
Home schooled students must have a signature of a school affiliate on their High School Certification Form. Home schooled students who are not able to obtain a school affiliate signature must achieve the following scores in each area of the Chaffey College assessment test: Reading 55, English 60, Arithmetic 34. If the preceding scores are not achieved, the student may not retake the test until the following semester.

The student’s registration date, student ID number, and a link to the High School Registration Packet will be included in their registration letter, which is sent by e-mail. Students may not register until they have completed all the steps in the registration packet, which includes returning all required documents and completing assessment, orientation, and counseling. The High School Certification Form must be completed by the high school principal or designee. Only this person may complete the area of the form listing the recommended courses, which cannot be remedial in nature (courses numbered 500-599). In addition, high schools students are limited to a single section of the PE activity cardio-fit course PEACT-30 (1 unit) or PEACT-30a (.05 unit) per term. PETEAM courses are not available to high school students. Both the principal or designee and the student must sign the Certification Form.

The Parental Advisory Form must be completed and signed by the parent or legal guardian. The Emergency Contact/Internet Usage and Waiver of Liability Forms must be completed and signed by the parent or legal guardian and the student. All of the above required documents must be returned to the Admissions Office - along with official high school transcripts - by the deadline date listed in the High School Registration Packet.

High school students must register in person in the Admissions and Records Office at any Chaffey College campus on or after their assigned registration date. Up to eight units may be taken per term, selected from the recommended courses on the High School Certification Form. Enrollment, health, and college service fees are waived for high school students who reside in and/or attend a high school within the Chaffey College District. Other costs (e.g., materials fees, books, parking) must be paid by the student.

High school students who reside in California but outside of the Chaffey College District must pay all fees including resident enrollment, health, and college service fees. High school students classified as non-residents of California (for tuition purposes) and/or the United States must also pay out-of-state tuition fees. All high school students participating in dual enrollment must attend the first day of class. For more information on high school dual enrollment, visit our Web site at www.chaffey.edu and select the High School Partnership link. For more information on assessment, orientation and counseling, contact the Counseling Department at (909) 652-6200.

HIGH SCHOOL APPEALS PROCESS

The appeals process is for high school students (9-12 grade) who do not meet the admissions criteria but have strong potential for academic success in a college setting. For more information on the appeals process, visit our Web site at www.chaffey.edu and select the High School Partnership link.

HIGH SCHOOL TECH PREP PROGRAM

High school students participating in Tech Prep courses may be eligible to receive Chaffey College placement or credit. For additional information, contact the high school counselor or the Chaffey College Articulation/Tech Prep Office at (909) 652-6510.

STUDENT CLASSIFICATIONS AND PROGRAMS

AIR FORCE RESERVE OFFICER TRAINING CORPS

Air Force Reserve Officer Training Corps (AFROTC) is offered through an agreement with the University of Southern California (USC). The program is open to most students pursuing an undergraduate or graduate degree with at least 2.5 years of school remaining. Competitive one- to four-year scholarships valued at up to 100% of tuition and fees are available to qualified applicants. Additionally, students may be eligible to receive money to cover the cost of books as well as a monthly tax-free stipend of up to $500 per month. Classes are offered on the USC and Harvey Mudd College campuses and include one hour of academics for freshmen and sophomores and three hours of academics for juniors and seniors. All students will also participate in two hours of leadership laboratory and undergo practical leadership training and development as Air Force officer candidates. Students who successfully complete the program will commission as an officer into the United States Air Force upon graduation. Students who qualify for and are selected to enter competitive programs including Air Force pilot, navigator, air battle manager, medical, and nursing career fields will be given specialized training following entry into the Air Force. For more information contact the USC Department of Aerospace Studies at (213) 740-2670 or visit www.usc.edu/afrotc.

AMAN/AWOMAN

“Connect to Succeed” is the philosophy of the AMAN/AWOMAN Project. This project is a culturally responsive approach to reaching students and providing an environment to survive and thrive. Participants receive a variety of tools and resources that will assist them in navigating the Chaffey College campus and completing their goals. Through mentoring and counseling, students from a wide variety of backgrounds are connected to strategies and activities that promote achievement and self-esteem. Although the program is specifically designed to assist African-American students, all students are welcome to join. For more information, contact Donna Colondres at (909) 652-6226.

CALIFORNIA INSTITUTION FOR WOMEN (CIW)

The college has partnered with the California Institution for Women in Chino (a state correctional facility) to provide education to a select cohort. The students follow an educational plan which leads to an Associate of Arts degree in Communication Studies and prepares them for transfer to four-year institutions. All courses are taught through distance education by Chaffey faculty (e.g., taped lectures on campus and written correspondence) because of state restrictions on face-to-face instruction in a facility closed to the public. By working through the Extended Opportunities for Students (EOPS) program, the college ensures that the CIW students receive the same services traditional students enjoy. The prison has a Success Center, tutors and a small computer lab available to increase academic success.

COORDINATE EDUCATION (WORK EXPERIENCE)

Cooperative Education/Work Experience provides students with the opportunity to use their part-time, full-time, or internship position to earn elective credit. On-campus work-study positions also qualify. Students obtain practical on-the-job experience and knowledge related to their career or educational goals. Students gain an understanding of the relationship between classroom theory and the world of work and improve their career development skills and their employment opportunities while enrolled in Cooperative Education. Under the supervision of college faculty and the job supervisor, students prepare a job-related learning agreement which serves as a guide to their Cooperative Education experience.

Chaffey College offers two types of Cooperative Education programs: Career Field Studies requires the student’s job be related to their declared major and General Work Experience is for students whose job is not related to their major. The Cooperative Education staff offers an entire list of career exploration seminars each semester.
EARTH ALERT
In order to assist students when they need support, Chaffey College uses an Early Alert System that allows an instructor to notify students if their success in a course appears to be in jeopardy. This system is designed to provide students with individualized attention, while there is still time to successfully complete their course. The Early Alert Office may send a letter or email, followed up with a telephone call, to discuss classroom performance and on-campus resources.

GATEWAYS TO TEACHING PROGRAM
Gateways to Teaching provides support services and programs to help students prepare for a career as a K-12 teacher. Any Chaffey College student interested in teaching may apply to the program. Benefits of the program include free CBEST workshops, academic planning with a Gateways counselor, and newsletters that provide up-to-date information on special events, scholarships, transfer programs, and credentialing. Education courses provide students with an opportunity to develop a teaching portfolio and gain hands-on experience working with teachers in elementary and secondary school classrooms. The Gateway to Teaching office is located on the Rancho Cucamonga campus in room AD-180D. For more information or to obtain an office hours, contact the Education Office at (909) 652-6190 to schedule an appointment or to obtain office hours.

HONORS PROGRAM
The Honors Program offers enriching experiences to improve the quality of education, provide challenges, and motivate academically talented students who strive for advanced academic achievement toward established long-range educational goals. Students are offered courses with particular rigor and subject enrichment, along with opportunities for involvement in service activities. Additionally, these students may be given guaranteed transfer priority to those colleges with articulated agreements with Chaffey. Transcripts of graduating honors students document that students have earned honors credits — records are highly regarded by any accredited college or university. Chaffey College has articulated Honors Program agreements with UCI, UCLA, UC, UCSC, CSUSB, San Diego State University, Occidental College, Pitzer College, Pomona College, Chapman College, Pepperdine University, University of La Verne.

Affiliation
Chaffey is a member of the National Collegiate Honors Council, the Western Regional Honors Council, and the Honors Transfer Council.

Criteria for Enrollment
- High school GPA of 3.25 or college GPA of 3.00 after the minimum of 12 units of transferable courses.

Plus one of the following:
- Two letters of reference from high school or college faculty members which address a student’s academic abilities and motivation.
- Combined SAT score of 1000 or above, or ACT score of 26.
- Successful completion of two Chaffey honors courses with grades of A or B, or completion of three advanced placement classes in high school.
- Evidence of special competence or creativity.
- Nomination by a Chaffey faculty member.

Criteria for Fulfillment of Honors Program
- GPA of 3.00 in transferable courses.
- GPA of 3.00 in honors courses.
- Completion of 18 semester units in Chaffey Honors Program (up to 6 units may be accepted from another institution).
- Completion of Associate Degree, or fulfillment of admissions requirements to a 4-year institution.
- Submission of “Intent to Complete Honors Transfer Program” form.
- Community service and enrichment activities.

Student Honor Society
Phi Theta Kappa is the national student honor society. Honor students with a 3.50 cumulative GPA may become members of Phi Theta Kappa and may graduate with honors.

INTERNATIONAL STUDENTS
Chaffey College welcomes students from all over the world. Approximately 200 students from 57 countries are enrolled at Chaffey College and provide cultural enrichment to the college community. An international student is defined as a student who has entered the United States temporarily and solely for the purpose of study, and has a permanent residence in another country that he/she has no intention of abandoning. These individuals must contact the International Student Office in Wargin Hall 181 on the Rancho Cucamonga Campus or check the program’s website at www.chaffey.edu/international before starting the registration process. A variety of services are provided to international students, including guidance and assistance to maintain F-1 (student visa) status, information and assistance regarding change of status processes, academic guidance, career development, housing/homestay referrals, social and cultural activities and many other services geared to meet the specific needs of international students attending Chaffey College.

MATRICULATION PROCESS

For appointments and information regarding the program, students may call the International Student Office at (909) 652-6195 or (909) 652-6197, or e-mail the office at intlstudents@chaffey.edu.

Transcript Evaluation for Foreign Students:
Chaffey College accepts the following Transcript Evaluation Services for foreign students:
- Academic and Professional International Evaluations, Inc.
- Academic Credentials Evaluation Institute
- American Education Research Corporation (AERCl
- Educational Credential Evaluators, Inc.
- Educational Records Evaluation Service
- Institute for International Credentials Evaluation at CSU Fresno
- International Education Research Foundation, Inc. (IERF)
- World Education Services, Inc. (WES)

Note: Credits from an evaluation service are counted as earned credits only. Grade point averages from foreign institutions are not included on the Chaffey academic transcript. For specific information, contact the Admissions and Records Office.
ONLINE TO COLLEGE
Chaffey College’s Online to College program is a collaboration among the Montclair Community Collaborative, City of Montclair, Ontario-Montclair School District, Chaffey College Foundation, Montclair businesses, and participating schools.

The program is designed to prepare and educate the community that attending college is a viable option for their youth. Beginning in 5th grade, students from Lehigh, Kingsley, and Monte Vista elementary schools are introduced to college through classroom presentations and Chaffey College campus tours. As students enter Vernon or Serrano Middle schools, age- appropriate curriculum is introduced to students and their parents to enhance their knowledge about college. When students enter Montclair High School, the Chaffey College Online to College team is ready to assist them with the transition into college through workshops, assessment testing, educational planning, after-school college courses and weekend programs. Since the introduction of the program, and having the first cohort graduate from high school in 2005-2006, the college-going rate for Montclair students has increased 24%. Over 3,100 students participate annually in the Online to College program. For more information about the program, please call (909) 652-6455.

OPENING DOORS TO EXCELLENCE
Chaffey College offers a comprehensive program to assist students experiencing academic difficulty. Opening Doors assists students on second level probation. Smart Start assists students whose assessment results indicate that they could benefit from additional assistance in transitioning to the college experience. Project Second Chance provides support for individuals who did not graduate from high school and want to continue their education at Chaffey College.

These programs offer specialized counseling, orientation and information sessions, guidance courses and directed learning activities at the Success Centers to help students overcome the challenges of attaining good standing with the college. For more information, contact the Opening Doors to Excellence program at (909) 652-6201.

PUENTE PROJECT
An outgrowth of the Puente Project founded in 1981 at Chabot College in Hayward, the Puente Project is designed to provide individual assistance to students interested in transferring to four-year colleges and universities. Puente students are provided with intensive English instruction, focused personal counseling, introductory tours of UC and Cal State campuses, and helpful personal mentoring. Every element is an essential part of the Puente experience.

Prospective students must be eligible for English 450 at the time of application, and must write an essay describing their academic and career goals, and how participation in Puente would assist in their success. Applications and essays are evaluated by the Puente Program faculty, who select 30 students each year for participation in the program.

More information and application forms are available in the Counseling Department at the Rancho Cucamonga Campus. Puente Project contacts are Professor Monica Molina at (909) 652-6208. Students may also visit www.chaffey.edu/puente and apply online.

VETERANS
Veterans and dependents eligible for chapter benefits should apply for those benefits in the Admissions and Records Office.

The Veterans Administration (VA) specifies a minimum load for educational benefits (these apply to full term classes only; see Veterans Certifying Official for information regarding short-term classes):

- FALL AND SPRING
  - 12 units or more: Full-time Student
  - 9-11 units: 3/4 time Student
  - 6-8 units: 1/2 time Student
  - Less than 6 units: Less than half time

- SUMMER: see Veteran’s officer in Admissions and Records for unit requirements.

All veterans and eligible dependents who wish to receive VA educational benefits while attending Chaffey College are required to meet with a counselor for a Veteran’s Program Check. Official transcripts of all previous college work must be evaluated prior to this meeting.

Veteran students may request priority registration; however, students wishing to collect benefits must first meet with the Veteran Certifying Office in Admissions and Records to begin the process. Students not wishing to collect benefits may request priority. For additional details, please go to www.chaffey.edu and click on Veteran Services.

If the grade point average of a student who is receiving VA educational benefits is below the graduation requirement of 2.0, the student will not be certified for VA educational benefits until his or her academic status is restored to good standing. Students with GPAs less than 2.0 may be certified for one semester under probationary status. The student may be certified for up to two terms on probation, provided the student has shown marked improvement upon completion of the probationary term as defined in the Conditions for Improvement. If after the second probationary term the student’s cumulative grade point average does not meet the graduation requirement of 2.0, the student will not be certified until the Conditions of Re-entry for Students Receiving VA Educational Benefits have been met.

Conditions for Improvement: If the student’s probationary term grade point average is 2.0 or above, the student may be certified for an additional probationary term, even if the cumulative grade point average does not yet meet the graduation requirement of 2.0.

Conditions of Re-entry for Students Receiving VA Educational Benefits: The student will be granted re-entry for the purposes of VA educational benefits after the student has restored his or her grade point average to the graduation requirement of 2.0.

- Program Changes
  Veterans and eligible dependents are considered the same as all other students in regard to attendance and academic requirements by Chaffey College.

- Military Credit
  A veteran may request credit for military science and tactics. If this is approved, the student may be granted 2 semester units of elective credit towards graduation for every 180 days of active service (including basic training), to a maximum of 8 semester units (E.C. 78230). Military credit does not exclude the student from meeting physical education requirements at Chaffey College. A copy of the DD214 or other official documents must be submitted to the Admissions and Records Office to verify length of service and honorable discharge.

Elective credit toward graduation from Chaffey College for service schools completed while serving in the Armed Forces, Armed Forces Reserve, or National Guard may also be requested. A separate request for evaluation must be submitted for each school completed and exact information must be provided to complete a proper evaluation and verify completion of service school training. A maximum of 15 semester units for basic training plus service schools completed may be granted to a veteran toward graduation from Chaffey College.
ACADEMIC INFORMATION

DEFINITIONS

CATALOG RIGHTS/MATRICULATION
Requirements shown in this catalog apply to any student entering (matriculating) Chaffey College during the Fall 2009, Spring 2010, or Summer 2010 terms. Catalog rights apply only to the courses comprising the General Education requirements. Other requirements such as minimum grade point average for admission to a program, course prerequisites and corequisites, textbooks, course content, software, etc., may change over time at the discretion of the college.

UNIT OF CREDIT
The California State Education Code defines a college unit of credit as approximately one hour of class plus two hours of study per week, or three hours of laboratory per week, carried through the term.

HOURS AND UNITS OF CREDIT

<table>
<thead>
<tr>
<th>Class</th>
<th>Unit of Credit</th>
<th>Hours per Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>1</td>
<td>16-18</td>
</tr>
<tr>
<td>Laboratory</td>
<td>1</td>
<td>48-54</td>
</tr>
<tr>
<td>(including open-entry)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent Study</td>
<td>1</td>
<td>16-18</td>
</tr>
<tr>
<td>Studio</td>
<td>1</td>
<td>32-36</td>
</tr>
<tr>
<td>Work Experience</td>
<td>1</td>
<td>60 (unpaid) 75 (paid)</td>
</tr>
</tbody>
</table>

UNIT LOAD
The number of units a student enrolls in each semester. An average of 15 units each semester is necessary for a student to progress at a rate which may lead to graduation in four semesters (two years).

To be considered a full-time student, a student must carry a minimum of 12 units per semester.

ATTENDANCE AND PARTICIPATION

GENERAL
Ideally, students are expected to attend every meeting of every class for which they are enrolled.

Instructors may develop specific policies and procedures related to attendance and participation for their individual classes. These policies and procedures are distributed to students, in writing, at the beginning of the term, and it is expected that students will adhere to the standards set forth.

FIRST CLASS MEETING
Students are required to attend the first meeting of each class in which they are registered or they may be dropped from the class. Students taking online classes are required to log in on their required day and time to satisfy the first class meeting requirement.

NOTE: Please remember, it is a student's responsibility to drop or withdraw from classes in which they are registered but cannot attend.

ABSENCE FROM CLASS
The student is responsible for completion of the required assignments. Should a student find it necessary to be absent from class, he or she should make arrangements with the instructor before the absence to complete all assignments for the class missed. It is an instructor’s option to provide makeup quizzes, examinations, lectures, or lab work missed due to absence.

DISTANCE EDUCATION
Chaffey College has an extensive course listing in several different distance education modalities and offers several certificates that can be obtained via distance education. Distance education courses are taught by distinguished Chaffey faculty and fulfill general education, elective and/or major requirements. They are academically equivalent to on-campus courses, with some classes transferable to four-year institutions. Chaffey offers two basic types of distance education classes: online and hybrids. In online classes, students attend classes via the internet. While these classes have due dates and times for assignments, students can attend class anytime or anywhere a computer with internet capabilities is accessible. Hybrid courses are a combination of face-to-face and online instruction. Students meet on-campus on the designated days and times, as well as receive instruction online.

For more information about Distance Education and to determine if you, as a student, are ready for Distance Education class contact the Chaffey College Distance Education office at (909) 652-6975; via e-mail at OnlineEd@chaffey.edu; or visit the Chaffey College website at www.chaffey.edu/onlineed.

FINAL EXAMINATIONS

Final examination hours and dates are published in the Schedule of Classes. Final examinations for short-term classes are given during the last class meeting or during finals week as published in the schedule of classes.

The established final examination schedule cannot be changed without approval from the Vice President of Instruction.

Students may petition to take a final examination at a non-scheduled time due to exceptional circumstances. Petition forms are available in each school office, and must include the instructor’s approval and signature.

SCHOLASTIC ACHIEVEMENT

RECOGNITION
Scholastic achievement, leadership, and community service are recognized by Chaffey College through a variety of honors and awards. The majority of these are sponsored by college and campus organizations; however, a number are made possible by community organizations.

HONOR LISTS
Two scholastic honor lists are prepared each fall and spring semester.

Exemplary Achievement List:
Students who complete a standard semester with a 4.00 GPA in 12 or more degree applicable units.

Dean's Honor List:
Students who complete a standard semester with a 3.50 GPA in 12 or more degree applicable units.

Students in each category receive a Certificate of Merit for their achievement from the Office of Student Activities.

HONORS AT GRADUATION
Students with a cumulative 3.50 GPA or above in degree applicable units will graduate with honors. GPA for Honors at Graduation (listed in commencement ceremony booklet) is computed after the Fall semester grades are recorded on the transcript.
VALEDICTORIAN FOR SPRING COMMENCEMENT CEREMONIES
To be eligible for selection as valedictorian for Spring commencement ceremonies, students must have earned a cumulative 4.00 GPA in degree applicable units and have completed a minimum of 12 degree applicable units at Chaffey College each consecutive term, except the first term in college may be fewer than 12 units.

CREDIT BY EXAMINATION

PRIOR EXPERIENCE
Registered students who have substantial prior experience in the content of college-level courses and who can present evidence may petition to receive credit for courses listed in the college catalog which are approved for Credit by Examination. There are four options:

1. College Entrance Examination Board (CEEB)
Chaffey College recognizes the Advanced Placement Program of the College Entrance Examination Board. Students who have completed the course work and testing in high school may be eligible for credit by examination.

2. College Level Examination Program (CLEP)
Chaffey College recognizes the College Level Examination Program (CLEP) of the College Entrance Examination Board. Students who have completed the course work and testing in high school may be eligible for credit by examination.

3. Chaffey College Testing
Any course listed in the course description section of the Chaffey College catalog bearing the designation [Cx] after the course title may be challenged for credit by examination with the consent of the instructor in the appropriate administrative unit and after admisions eligibility criteria are met. A department (discipline area) may establish a limit on the number of courses that may be challenged for credit by examination. Contact the subject area Dean’s office for more information. Credit by examination is subject to the following regulations:

a) The Chaffey Community College District will grant credit to any student who satisfactorily passes an examination in accordance with the credit by examination policy and procedure. Such credit will be granted only to a student who is registered in the Chaffey Community College District; who has earned at least 12 units* of credit from Chaffey College; who is in good standing (cumulative GPA 2.0); who has met all course prerequisites; who has not previously received a grade for the course; who is not currently enrolled in the course; and only for a course listed in the college catalog that specifies it may be challenged through the credit by examination policy.

b) Units earned through credit by examination shall not be counted toward the 12-unit residency requirement for graduation.

c) There is a $25 fee for credit by examination testing.

* The credit by examination [Cx] twelve unit course credit requirement is waived for high school students enrolled in articulated tech prep courses.

d) Applications for credit by examination are available in the Admissions Office at any of our three campus locations.

It is the policy of Chaffey College that only unit credit is granted upon successful completion of any of the four options offered above. A grade of P will be issued, which is equivalent to a C or better grade. No letter grade is assigned; no grade points are assigned; thus, it is not computed in the grade point average.

CREDIT FOR TRANSFER WORK

GRANTING OF CREDIT
Credit for college-level courses completed at other accredited education institutions will be evaluated for content quality upon receipt of an official transcript and completion of a Request for Unit Evaluation form in the Admissions and Records Office. Full unit credit normally will be granted. Further information regarding the following may be obtained from the Admissions and Records Office:

1. Any University of California
2. Any California State University
3. Other California community colleges
4. United States Armed Forces Institute (USAFI)
5. University of California Extension
6. Out-of-state colleges and universities
7. Nursing schools
8. Foreign colleges and universities
9. Correspondence courses
10. Military experience
11. Private colleges

<table>
<thead>
<tr>
<th>TABLE OF NONTRADITIONAL CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOURCES OF NONTRADITIONAL CREDIT</td>
</tr>
<tr>
<td>--</td>
</tr>
<tr>
<td>College Entrance Examination Board (CEEB)</td>
</tr>
<tr>
<td>Advanced Placement (AP) Examinations*</td>
</tr>
<tr>
<td>Military-sponsored programs:</td>
</tr>
<tr>
<td>a. USAFI college-level courses (DANTES)</td>
</tr>
<tr>
<td>b. Community College of the Air Force</td>
</tr>
<tr>
<td>Credit recommendations of the ACE Guide to Evaluation of Educational Experience in the Armed Services:</td>
</tr>
<tr>
<td>a. Military Service</td>
</tr>
<tr>
<td>b. Approved Academic Service Schools</td>
</tr>
<tr>
<td>College-Level Examination Program (CLEP)</td>
</tr>
<tr>
<td>general examinations*</td>
</tr>
<tr>
<td>a. English Composition</td>
</tr>
<tr>
<td>b. Humanities</td>
</tr>
<tr>
<td>c. Mathematics</td>
</tr>
<tr>
<td>d. Natural Sciences</td>
</tr>
<tr>
<td>e. Social Sciences</td>
</tr>
<tr>
<td>College-Level Examination Program (CLEP) subject examinations*</td>
</tr>
<tr>
<td>International Colleges and Universities</td>
</tr>
<tr>
<td>[Evaluation by approved agency required]</td>
</tr>
<tr>
<td>Colleges or Universities without Regional Accreditation</td>
</tr>
<tr>
<td>Religious coursework/sectarian</td>
</tr>
</tbody>
</table>

* See counselor for specific subject examination credit
@ See Counselor for credit for specific area general education requirement
OFFICIAL EVALUATION OF CREDIT COMPLETED AT OTHER SCHOOLS
Students who have completed course work at other institutions and wish to obtain a degree or certificate from Chaffey College or transfer to a CSU or UC, may request an official evaluation through the Counseling Department. The official evaluation will be completed once all official transcripts are received. Note: Chaffey College will only accept units from colleges/universities from Regional Institutional Accrediting Organizations. For specific information, please contact the Admissions and Records Office.

AUDITING
Pursuant to Education Code 76370, it is the policy of the district to provide students who are otherwise qualified to enroll in credit courses an opportunity to audit specific credit courses. An auditing fee of $15.00 per unit is charged. Auditing may be requested after the late application period is over. Not all classes are auditable and there are specific requirements that must be met in order to audit a course. Additional information is available from the Admissions and Records Office.

PROGRAM CHANGES

ADDS
Registered students may add one or more courses to their schedules during late registration. Open-entry, open-exit, and short-term classes may be added up to the 14th week of the fall/spring term. Adds cannot be processed by mail.

DROPS OR WITHDRAWAL
Drops or withdrawals must be done online via My ChaffeyVIEW. A student may drop or withdraw, or be dropped by an instructor, only before 75% completion of a class. Students may not drop or be dropped by an instructor after 75% completion of a class, and the instructor must issue a grade beyond this point. A student who drops a class or is dropped by an instructor on or prior to 30% of the course or the fourth week (whichever is less), will receive no entry on the student's permanent record for that class. However, the student is still responsible for payment of fees.

A student who drops a course or is dropped by an instructor after 30% of the course, and on or before 75% of the course, will receive a W grade for that class.

Students may be dropped for lack of attendance or for “good cause” as defined in the Education Code, Article 5, Section 76033.

STUDENTS SHOULD NOT RELY ON INSTRUCTORS TO DROP OR WITHDRAW THEM. Failure to officially drop or withdraw by the drop deadline may result in the assignment of an F (Failing) or FW (Unofficial Withdrawal) grade. Drops or withdrawals cannot be processed by mail.

PASS/NO PASS GRADING
Courses offered on a Pass/No Pass only basis and courses where Pass/No Pass grading is an option are clearly identified in the college catalog and schedule of classes. In courses with a letter grade or Pass/No Pass option, it is the student’s responsibility to request the Pass/No Pass option through an application process. Students who elect this option must pick up the appropriate application forms from the Admissions and Records Office. A student may reverse his/her enrollment from Pass/No Pass status to receive an evaluative grade provided the reversal is completed prior to the deadline to add classes for the section number in question. Note: short term classes add deadlines vary; see the schedule of classes for deadline information. Students may enroll in a maximum of eight optional Pass/No Pass units per semester; however, courses offered only on a Pass/No Pass basis are exempt from the eight unit maximum. A maximum of 16 units of credit for optional Pass/No Pass courses may apply toward graduation requirements; this does not apply to courses offered only on a Pass/No Pass basis.

IMPORTANT NOTICE TO TRANSFER STUDENTS: Transfer institutions may consider No Pass grades to be equivalent to “F” grades. Additionally, they may not accept course work for which a Pass grade has been issued. Students planning to transfer to a four-year institution should review the Pass/No Pass acceptance policy of the transfer institution before applying for the Pass/No Pass option.

GRADING

FINAL GRADES
Grades given for any course are determined by the instructor, and in the absence of mistake, fraud, bad faith, error, or incompetency, are final. The student has two years, via a petition process or by dealing directly with the instructor, following the semester in which the grade was recorded to request a change of grade. After the two-year limit, the grade is no longer subject to change.

If a grade has been incorrectly entered on a student’s permanent record during computer services procedures, the error will be corrected.

Withdrawn/Unofficially/Withdrawn Passing (W/U/WP) grades were authorized by the catalog from the 1939-40 school year through the 1969-70 school year. These grades will be changed to W (Withdrawn) on the student’s permanent record prior to the release of the transcript. No grade point average computation penalty is associated with the W grade.

GRADES AND GRADE POINT AVERAGES
The cumulative grade point average (GPA) is computed by dividing the total number of units a student has attempted into the total number of grade points the student has earned:

\[ \text{Grade Point Average (GPA)} = \frac{\text{Total grade points earned}}{\text{Total units attempted}} \]

<table>
<thead>
<tr>
<th>Attempted</th>
<th>Completed</th>
<th>Grade</th>
<th>Multiply</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Units</td>
<td>5 Units</td>
<td>A+/A (4 points)</td>
<td>5 x 4 = 20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A- (3.7 points)</td>
<td>5 x 3.7 = 18.5</td>
<td></td>
</tr>
<tr>
<td>4 Units</td>
<td>4 Units</td>
<td>B+ (3.3 points)</td>
<td>4 x 3.3 = 13.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>B (3 points)</td>
<td>4 x 3 = 12.0</td>
<td></td>
</tr>
<tr>
<td>3 Units</td>
<td>3 Units</td>
<td>C+ (2.3 points)</td>
<td>3 x 2.3 = 6.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>C (2 points)</td>
<td>3 x 2 = 6.0</td>
<td></td>
</tr>
<tr>
<td>2 Units</td>
<td>2 Units</td>
<td>D+ (1.3 points)</td>
<td>2 x 1.3 = 2.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>D (1 point)</td>
<td>2 x 1 = 2.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>D+ (.7 points)</td>
<td>2 x .7 = 1.4</td>
<td></td>
</tr>
<tr>
<td>1 Unit</td>
<td>1 Unit</td>
<td>F (0 points)</td>
<td>0 x 0 = 0.0</td>
<td></td>
</tr>
</tbody>
</table>

Example: 40 grade points earned
| 15 units attempted |

Grades earned in non-degree credit courses (numbered 500-599) are not included in the students’ degree applicable grade point average.
# MEANING OF GRADE SYMBOLS

Grades are based upon the quality of a student's work in credit classes within the framework of the college's philosophy, academic standards, and state regulations.

Grades, grade points awarded, and symbols used by Chaffey College are as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Points</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+, A</td>
<td>4.00</td>
<td>Excellent</td>
</tr>
<tr>
<td>A-</td>
<td>3.70</td>
<td>Excellent</td>
</tr>
<tr>
<td>B+</td>
<td>3.30</td>
<td>Good</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
<td>Good</td>
</tr>
<tr>
<td>B-</td>
<td>2.70</td>
<td>Good</td>
</tr>
<tr>
<td>C+</td>
<td>2.30</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>D+</td>
<td>1.30</td>
<td>Passing, less than satisfactory</td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
<td>Passing, less than satisfactory</td>
</tr>
<tr>
<td>D-</td>
<td>0.70</td>
<td>Passing, less than satisfactory</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
<td>Failing</td>
</tr>
<tr>
<td>FW</td>
<td>0</td>
<td>Student has both ceased participating in the course some time after the last day to officially withdraw from the course without having achieved a final passing grade, and the student has not received district authorization to withdraw from the course under extenuating circumstances.</td>
</tr>
<tr>
<td>CR</td>
<td>N/A</td>
<td>Credit. At least satisfactory. CR grades are not used in calculating GPA. (Only assigned for courses with CR/NC designation and credit by exam.)</td>
</tr>
<tr>
<td>*P</td>
<td>N/A</td>
<td>Passing; At least satisfactory. P grades are not used in calculating GPA. (Only assigned for course with P/NP designation and credit by exam)</td>
</tr>
<tr>
<td>NC</td>
<td>N/A</td>
<td>No credit. Student did not fulfill academic requirements of course. NC grades are not used in calculating GPA. (Only assigned for courses with CR/NC designation.)</td>
</tr>
<tr>
<td>*NP</td>
<td>N/A</td>
<td>No Pass; Less than satisfactory or failing. (Only assigned for course with P/NP designation)</td>
</tr>
<tr>
<td>W</td>
<td>N/A</td>
<td>Withdrawal. Assigned for students who officially withdraw from a class after 30% and before 75% of the course has elapsed. &quot;W&quot; grades are not used in calculating GPA, but are used as factors in probation and dismissal procedures.</td>
</tr>
<tr>
<td>I</td>
<td>N/A</td>
<td>Incomplete academic work due to unforeseeable emergency and justifiable reason at the end of the term. Students do not re-enroll in the class but make arrangements with the instructor to complete coursework and receive a final grade. Coursework must be completed within one year or the I grade will default to an alternate grade indicated by the instructor (usually substandard). I grades are not used in calculating GPA or units attempted.</td>
</tr>
<tr>
<td>IP</td>
<td>N/A</td>
<td>In progress. Grade awaits completion of course work which extends beyond the end of the term. Students must re-enroll in the class the following semester. The IP may be assigned only one time for each class. Coursework must be completed the following semester or the IP grade will default to an alternate grade indicated by the instructor (usually substandard). IP grades are not use in calculating GPA.</td>
</tr>
<tr>
<td>RD</td>
<td>N/A</td>
<td>Report delayed. Grade can only be assigned by the registrar when there is a delay in reporting a student's grade. It is a temporary symbol, replaced by a permanent symbol as soon as possible and therefore is not used in calculating GPA.</td>
</tr>
<tr>
<td>MW</td>
<td>N/A</td>
<td>Military withdrawal. Students who receive military orders compelling withdrawal from classes may be permitted to withdraw at any time during a term with no adverse impact on academic records or enrollment status. Upon verification of such orders, the MW symbol shall be assigned, and upon request, enrollment fees will be refunded.</td>
</tr>
</tbody>
</table>

*Chaffey College began using the P/NP (Pass/No Pass) grading symbol in Fall 2008.*
COURSE REPETITION

COURSE REPETITION IN A NON-REPEATABLE COURSE
1. Students who received a satisfactory grade ("A", "B", "C", "CR", or "P") may not normally repeat the course. Exceptions exist for recency, extraordinary circumstances, and legally-manded training requirements as a condition of continued paid or volunteer employment (see exceptions below for details). Such exceptions require a petition, available from the Admissions and Records Office.

2. Students who have received an incomplete grade ("I") may not repeat the course. Required coursework must be completed within one year, or the "I" grade will default to an alternate grade indicated by the instructor (usually substandard).

3. Students who have received an In-Progress grade ("IP") must repeat the course by enrolling in it in the next subsequent term (excluding summer). Coursework must be completed in that semester or the "IP" grade will default to an alternate grade indicated by the instructor (usually substandard). "IP" grades are most commonly issued for open-entry/open-exit courses, courses which are skills based and where a student making satisfactory progress has not yet mastered the required skills to complete the course requirements, or team-sports that have seasons that overlap semesters.

4. Students who have received an unsatisfactory grade ("D", "F", "FW", "NC", or "NP") or have withdrawn from the course ("W") may repeat the course once. If unsuccessful in the second attempt, the student must file a petition to be considered for a third or subsequent attempt at the course. Petitions are obtained from the Admissions and Records Office. The academic dean over the subject area being petitioned evaluates and approves/disapproves each petition on a case-by-case basis.

5. Students who have withdrawn for verified military service ("MW") may repeat course(s) from which they have withdrawn. The "MW" grade does not affect GPA, nor does it count toward the permitted number of repetitions.

COURSE REPETITION IN A REPEATABLE COURSE
Repeatable courses are those in which course content differs each time offered, the course is an activity or performance where the student gains skills or enhanced proficiencies by supervised repetition, or where active participatory experience in individual study or group assignments is the basic means by which course learning objectives are obtained.

1. Repeatable courses are identified in the description for each course so designated. Courses may be repeated only for the number of times specified. In addition, certain activity courses have collective limitations on the number of repeats based on the entire group/cluster of courses (for example, when an activity subject has both beginning and advanced course levels.)

2. All attempts at a repeatable course count in the limitation on repeats, including any that result in an unsatisfactory grade ("D", "F", "FW", "NC", and "NP") or a withdrawal annotation ("W") on the student's permanent record.

3. When a repeatable course is taken and a substandard grade ("D", "F", "FW", "NC", and "NP") earned, a student may elect to have the satisfactory grade earned in the first subsequent repeat of the course used to alleviate the substandard grade. Forms for this election are available in the Admissions and Records Office.

EXCEPTIONS TO REPETITION RESTRICTIONS:
Recency: A student may petition to repeat a course that is not designated as repeatable and in which he or she has received a satisfactory grade ("A", "B", "C", "CR", or "P") when the student's level of competency in the course material has diminished over a period of time. The most recent grade is considered an unofficial repeat, therefore, units and grade points earned in the latest repetition of the course will not be used in calculations of units earned or grade point average.

Extraordinary circumstance: A student may repeat a course in which the previous grade is, at least in part, the result of extenuating circumstances (verified cases of accidents, illness, or other circumstances beyond the control of the student).

Training Requirement: A student may repeat a course in which he or she earned a satisfactory grade when such repetition is necessary for the student to meet a legally mandated training requirement as a condition of continued paid or volunteer employment. Each repeat under this designation is considered an official repeat; therefore, units and grade points earned will be used in calculations of units earned and grade point averages.

VETERANS
The college's course repetition policy may be different from that of the Veterans Administration. Students receiving Veterans' educational benefits should check with the Veterans Certifying Official in the Admissions and Records Office before repeating any course.

ACADEMIC PROBATION
A student who has attempted at least 12 semester units as shown by the official academic record shall be placed on academic probation if the student has earned a cumulative grade point average below 2.00 in all units.

PROGRESS PROBATION
A student who has enrolled in a total of at least 12 semester units as shown by the official academic record shall be placed on progress probation when the percentage of W, I, NC, and/or NP grades reaches or exceeds fifty percent (50%) of all units in which the student has enrolled.

Students placed on either academic or progress probation may be subject to a block from registration.

REMOVAL FROM PROBATION
A student on academic probation for a grade point deficiency shall be removed from probation when the student's accumulated grade point average is 2.00 or higher.

A student on progress probation because of an excess of units for which W, I, NC, and/or NP grades are recorded will be removed from probation when the percentage of units in this category drops below 50%.

APPEAL
A student who wishes to appeal probationary status may do so through the Coordinator of the Opening Doors to Excellence program at (909) 652-6201.

Students placed on academic or progress probation will be notified by mail.

ACADEMIC DISMISSAL
A student who is on academic probation shall be subject to academic dismissal if the student earns a cumulative grade point average of less than 2.00 in all units attempted in each of three consecutive semesters, excluding summer session.

A student who has been placed on progress probation shall be subject to probation dismissal upon receipt of recorded grades of W, I, NC, or NP in 50% or more of all enrolled units during three consecutive semesters, excluding summer session.

Note to Veterans:
Rules regarding academic probation and dismissal apply to VA students.
ACADEMIC INFORMATION

REINSTATEMENT
A student who has been dismissed may apply for readmission after one semester following the date of dismissal. A student may appeal a dismissal or apply for readmission by filing a Petition for Readmission. The petition, along with instructions on how to complete the process, are mailed to students upon notification of their dismissed standing. Petitions are also available at the Opening Doors to Excellence program office in the Counseling Department on the Rancho Cucamonga Campus.

A student readmitted after academic dismissal will remain on academic probation until the student’s grade point average reaches 2.00, or the percentage of units for which grades of W, I, or NC, or NP drops below 50%.

SPECIAL PROBATION
A student readmitted on Special Probation after academic dismissal will remain on academic probation until the student’s grade point average reaches 2.00 or the percentage of units for which grades of W, I, NC or NP drops below 50%. The readmitted student on Special Probation will complete a Readmission Contract for dismissed students. The contract requires that the student on Special Probation list courses to complete in the subsequent term and agree to pass all courses with grades of C or better and not withdraw with a grade of W. Students on a special probation contract are subject to dismissal for one or more semesters if the provisions of their contract are not satisfied.

Dismissed students in violation of their special probation contract are subject to administrative withdraw of subsequent terms of enrollment upon verification of grades earned for the contracted term.

MISCELLANEOUS
For the purpose of this section on academic dismissal, semesters are considered consecutive on the basis of student enrollment.

• Dismissal is defined as the denial of the opportunity to attend college to a student.
• Dismissal is for one semester, unless the student is allowed to re-enter under Special Probation.
• Dismissed students will be notified by mail and are encouraged to confer with a counselor.
• Students will be dismissed according to the following stipulations:

  A. Students whose Fall grades subject them to academic dismissal will be notified in the Spring semester and will be dismissed for the Fall semester.
  B. Students whose Spring semester grades subject them to academic dismissal will be notified during the Summer and will be dismissed for the Spring semester.

In computing the grade point average, classes taken on a credit/no credit or pass/no pass basis will be disregarded, since they do not count as units attempted or toward grade points earned. Grades of W, MW, I, IP, and RD are disregarded for the same reason.

REGULATIONS FOR DISMISSED STUDENTS
A student applying for admission to Chaffey College who is under academic dismissal from another community college, college, or university is subject to the same reinstatement policies and procedures as a student who is under academic dismissal from Chaffey College. If it is determined that the student is subject to dismissal under Chaffey College standards, the student will not be eligible for admission for a period of one semester.

ACADEMIC RENEWAL WITHOUT COURSE REPETITION
The purpose of Academic Renewal (Sections 55764 and 55765 of the California Administrative Code) is to disregard students’ previously recorded substandard academic performance, when such work does not reflect current demonstrated ability. As a consequence, Academic Renewal allows students the benefits of their current level of ability and performance and does not permanently penalize them for poor performance in the past.

The Academic Renewal procedure is intended to facilitate the completion of requirements necessary for an academic degree or certificate at Chaffey College.

Approval of the request for Academic Renewal is subject to the following conditions:

A. Academic Renewal would be applicable for work completed at any institution up to a maximum of two semesters (or three quarters) and a summer session, which need not be consecutive.
B. A time period of at least two years must have elapsed since the end of the term of substandard work to be disregarded.
C. Evidence of academic ability since the semester (or quarter) in question shall include one of the following:

1. 16 semester units with a minimum of 3.0 GPA.
2. 20 semester units with a minimum of 2.5 GPA.
3. 24 semester units with a minimum of 2.0 GPA.
D. Work taken during the disregarded semester(s), even if satisfactory, will not be applied toward unit requirements. However, subject credit will be allowed for any course satisfactorily completed.
E. A student must include all work, including academic renewal term(s), in the computation of cumulative grade point average toward honors at graduation.
F. The permanent academic record shall be annotated in such a manner that all work remains legible, ensuring the true and complete academic history.
G. A student may petition only once to eliminate grade point calculations and credits from portions of previous college work.

Students should be aware that other colleges and universities may have different policies concerning academic renewal and may not honor this policy.
PHILOSOPHY AND CRITERIA FOR ASSOCIATE DEGREE AND GENERAL EDUCATION

The philosophy and criteria for the Associate Degree and general education should address the considerations contained in Title 5, Section 55061 and Accreditation Standard II.A.3. These include, but are not limited to:

- The programs of the District are consistent with the institutional mission, purposes, demographics and economics of its community.
- The philosophy and criteria regarding the Associate Degree references the policy of the Board of Governors that the Associate Degree symbolizes a successful student’s journey through patterns of learning experiences designed to develop certain competences and insights, including:
  - integrate critical thinking skills with effective written and oral exposition and argument;
  - employ practical applications for problem solving using mathematical principles;
  - investigate various modes of scientific research and methodology;
  - develop an awareness of the role of arts in contemporary society;
  - develop a sensitivity to diversity and a respect for differences among individuals;
  - gain perspective of various view points relative to historical developments;
  - develop ethical and moral frameworks to interpret contemporary society;
  - develop self-understanding.

- The philosophy and criteria regarding general education references the policy of the Board of Governors that general education should lead to better self-understanding, including:
  - introducing students to the variety of means through which people comprehend the modern world;
  - introducing the content and methodology of the major areas of knowledge and provides an opportunity for students to develop intellectual skills, information technology facility, affective and creative capabilities, social attitudes, and an appreciation for cultural diversity.

— The Chaffey College Faculty Senate
GRADUATION REQUIREMENTS

The minimum requirements for graduation with the degree of Associate in Arts or Associate in Science are specified by the Board of Governors of the California Community Colleges and the Chaffey College Governing Board. The Associate Degree will be granted upon completion of 60 semester units of work and the fulfillment of the specific requirements listed below.

“All degree requirements including General Education must be completed with an overall grade point average of 2.0 (C) or better. In addition, all courses that count toward the Associate Degree major or area of emphasis must be satisfactorily completed with grades of A, B, C, or P.” (Title 5, 55063)

UNIT AND SUBJECT REQUIREMENTS FOR THE ASSOCIATE DEGREE

I. GENERAL EDUCATION (minimum 18 units; see list of approved courses on next page)
Complete the requirements stated under “General Education.” (Note: Students who are qualified to be certified for the CSU General Education pattern of classes or the IGETC pattern of classes also fulfill the Associate Degree General Education for Chaffey College.)

II. MAJOR REQUIREMENTS (minimum 18 units)
• Complete an associate degree program as described under “Programs of Study” in the Chaffey College catalog.

III. MULTI-CULTURAL/GENDER STUDIES (minimum 3 units: see list of approved courses on next page)

IV. PHYSICAL EDUCATION, RECREATION, AND WELLNESS (minimum 2 units: see list of approved courses on next page)

V. ELECTIVES (any additional units necessary to meet minimum degree unit requirement)

MINIMUM TOTAL UNITS REQUIRED FOR DEGREE — 60 UNITS

BASIC SKILLS COMPETENCY REQUIREMENTS FOR GRADUATION

I. WRITING
Successful completion of the composition course English 1A.

II. READING
Reading proficient or placement into Reading 1 as determined by the Chaffey assessment process, or successful completion of Reading 550 or a more advanced level reading course.

III. MATHEMATICS
Placement into Mathematics 25 or higher as determined by the Chaffey assessment process, or successful completion of one of the intermediate algebra or higher level math or statistics courses listed below:
Mathematics 425, 430, 4, 25, 31, 60, 61, 65A, 65B, 75, 81, 85
Social Science 10
Statistics 10

V. COMPUTER LITERACY
1 Satisfactory completion of any one of the following courses:
Art 63, 82
Business and Office Technology 30, 40A, 40B, 60A, 60B, 61, 62, 63, 63A, 63B, 64A, 64B, 410A, 410B, 444, 460, 462A, 462B, 470
Computer Information Systems (CIS): Core 1, 15, 68
CIS: Programming 3, 403, 430
CIS: Internet & Web Development 70
Computer Science 1, 21
Drafting 20, 41, 43, 53
Geographic Information Systems 1, 1A, 1B, 401
Health Science 405
ID 427
Music 12
Photography 9
Social Science 11
Theatre Arts 30, 427
2 Pass, with a minimum grade of B, an appropriately articulated high school course.
3 Pass a computer literacy examination (both written and hands-on) administered by the college.

OTHER REQUIREMENTS FOR GRADUATION

I. SCHOLARSHIP REQUIREMENTS FOR GRADUATION
A minimum grade point average (GPA) of 2.00 (C average) in degree applicable units attempted.

II. RESIDENCE REQUIREMENTS FOR GRADUATION
A minimum of 12 units must be earned at Chaffey College.

III. APPLICATION FOR GRADUATION
Students must file a formal application for graduation in the College Counseling Center. Students may graduate at the end of any semester or Summer session. Refer to the schedule of classes for application deadline dates.

IV. CONTINUOUS ATTENDANCE
The preceding graduation requirements apply to students during the 2009-2010 school year. Students who enrolled prior to Fall 2009 and who have maintained continuous attendance (attendance in at least one semester or two quarters, excluding Summer sessions, each calendar year - January 1 through December 31 - as indicated on a permanent record) at any accredited college, have the option of meeting the current requirements or those in effect at the time continuous attendance began. In the event that required courses have been discontinued, students may petition for substitution by making an appointment with a counselor in the Counseling Center.
I. GENERAL EDUCATION

A. LANGUAGE AND RATIONALITY (minimum of 2 courses)

ENGLISH COMPOSITION
English 1A

COMMUNICATION AND ANALYTICAL THINKING
(one course)
Communication Studies 2, 4, 6, 8, 72
Computer Information Systems 1
Computer Science 1
English 1B
Mathematics 4, 25, 31, 60, 61, 65A, 65B, 75, 81, 85, 425, 430
Philosophy 75, 76
Social Science 10
Statistics 10

B. NATURAL SCIENCES (one laboratory science course)
Anthropology 1 & 1L
Astronomy 35, 36
Biology 1, 2, 3, 4, 5, 10 & 10L, 20, 22, 23 & 23L, 50, 424 & 424L
Chemistry 7, 9, 10, 21 & 21L1 & 21L2
Earth Science 1 & 1L, 5 & 5L
Geography 4 & 5
Geology 1, 2
Physical Science 10
Physics 5 & 6, 20A, 30A, 44, 45

C. HUMANITIES (minimum 4 units)
At least two courses required, one from each of the following categories

C1 ARTS (one course)
Art 1, 3, 5, 6, 7, 8, 9, 10, 11, 12, 14, 16, 18, 20, 62A, 63, 64, 82
Broadcasting 3
Cinema 25, 26
Communication Studies 14
Dance 1
Fashion Design 20, 45, 421
Fine Arts 50
Interior Design 11,12,13
Music 1, 2A, 2B, 3A, 4, 12, 21, 22, 26, 32, 33, 60, 62A, 62B, 67, 68
Photography 1, 7, 9, 10, 13
Theatre Arts 1, 4, 5, 10, 12, 64

C2 HUMANITIES (one course)
American Sign Language 1, 2, 3, 4, 16
Arabic 1, 2
Biology 16
Chinese 1, 2
Economics 8
English 1C, 7A, 7B, 7D, 7E, 30, 32, 33, 68, 70A, 70B, 71, 74, 75A, 75B, 76, 79, 80A, 80B, 81
French 1, 2, 3, 4
German 1, 2
History 1, 2, 5, 6, 7, 9, 10
Humanities 5, 6, 20
Philosophy 70, 72, 77, 78, 80, 81, 82
Spanish 1, 1A, 1B, 1SS, 2, 2A, 2B, 2SS, 3, 4, 7, 8, 13

D. SOCIAL AND BEHAVIORAL SCIENCES (minimum 4 units)
At least two courses required, one from each of the following categories

D1 AMERICAN INSTITUTIONS (one course)
Consumer Studies 11
Economics 1, 2, 4

Geography 10
History 12, 16, 17, 18, 25, 50, 51, 70, 71
Political Science 1, 2, 3, 7, 10, 11, 21, 25, 32

D2. BEHAVIORAL SCIENCES (one course)
Anthropology 2, 3
Child Development and Education 2, 4
Communication Studies 12, 74, 76, 78
Correctional Science 8
Geography 1, 3, 11
Gerontology 11, 18, 21
History 4
Political Science 4
Psychology 1, 21, 25, 41, 65
Social Science 24, 25, 26
Sociology 10, 15, 18

Students completing the CSU General Education or IGETC General Education pattern must also complete the “Multi-Cultural/Gender Studies” and “Physical Education, Recreation, and Wellness” requirements as part of their 60-unit requirement to earn the associate degree

III. MULTICULTURAL/GENDER STUDIES (minimum 3 units)
May also meet other Associate Degree course requirements
American Sign Language 16
Anthropology 3
Art 1, 6, 7, 9, 11
Biology 11, 12
Business 61
Child Development and Education 6
Communication Studies 74, 76
Correctional Science 8, 409
English 70A, 70B, 74, 76, 79
Fashion Design 421
Geography 1, 10, 11
Gerontology 18, 22, 404
Health Science 404
History 4, 7, 9, 10, 16, 25, 50, 51, 70, 71
Humanities 20
Interior Design 13
Music 26, 67
Nutrition and Food 25
Philosophy 80, 81, 82
Political Science 21, 25
Social Science 22, 24, 25
Sociology 10, 14, 15, 18

IV PHYSICAL EDUCATION, RECREATION AND WELLNESS* (minimum 2 units)
May also meet other Associate Degree course requirements
Biology 12, 13, 14
Child Development and Education 5
Consumer Studies 40
Dance 4A, 4B, 6A, 6B, 10A, 10B, 20A, 30A, 30B, 50A, 50B, 60A, 60B
Gerontology 11, 22, 31, 404
Guidance 3
Health Science 404
Nutrition and Food 5, 15, 21
Physical Education Activity (all one-half and one-unit activity classes)
Physical Education Lecture 14, 15, 16, 17, 18, 32, 33, 413, 422
Physical Education Team (all team sports)
Psychology 5, 430
Social Science 17, 22
Sociology 16

*Graduates from the ADN and VN programs meet this requirement.
ADVANCED PLACEMENT (AP) EXAMINATIONS

Chaffey College grants academic credit to students who have successfully completed Advanced Placement (AP) examinations of the College Entrance Examination Board. Elective credit is awarded for all AP examinations in which a score of 3 or higher has been earned. AP examinations may fulfill general education category requirements for Chaffey College, the California State University (CSUGE or IGETC), and the University of California (IGETC). A comprehensive table of AP/General Education information is provided on page 27.

The institution to which a student transfers determines the total number of units awarded for successful completion of an AP examination, and the applicability of the examination to course equivalency, major, and other graduation requirements. Students planning to use AP credit toward transfer requirements are advised to consult with a Chaffey College counselor, the Transfer Center and the planned transfer institution for information on policies and procedures. Publications and on-line references for the CSU, UC and private institutions are available at the Chaffey College Transfer Center.

Chaffey College recognizes course equivalency for a limited number of AP tests as indicated on the table at right. Transfer students are reminded that the decision to determine course equivalency is the responsibility of the transfer institution regardless of Chaffey College recognition. Students should consult a counselor before enrolling in any course for which AP credit has been granted.

<table>
<thead>
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<th>Minimum AP Score</th>
<th>Recognized Chaffey College Courses</th>
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<td>Biology 50</td>
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<tr>
<td>Chemistry</td>
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<td>5</td>
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<td>Chemistry 22+ 22L1+ 22L2</td>
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<tr>
<td>English</td>
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<td>Spanish Language</td>
<td>3,4,5</td>
<td>3 units toward Humanities</td>
</tr>
<tr>
<td>Spanish Literature</td>
<td>3,4,5</td>
<td>3 units toward Humanities</td>
</tr>
<tr>
<td>Statistics</td>
<td>3,4,5</td>
<td>3 units toward Language and Rationality</td>
</tr>
<tr>
<td>Studio Art: 2D Design</td>
<td>3,4,5</td>
<td>N/A</td>
</tr>
<tr>
<td>Studio Art: 3D Design</td>
<td>3,4,5</td>
<td>N/A</td>
</tr>
<tr>
<td>Studio Art: Drawing</td>
<td>3,4,5</td>
<td>N/A</td>
</tr>
<tr>
<td>United States History</td>
<td>3,4,5</td>
<td>3 units toward Social/Behavioral Science &amp; Humanities</td>
</tr>
<tr>
<td>World History</td>
<td>3,4,5</td>
<td>3 units toward Social/Behavioral Science &amp; Humanities</td>
</tr>
</tbody>
</table>

Approved by Academic Senate of California Community Colleges April 2009.

*Chaffey’s interpretation of the CCC category placement is available in the counseling center. Expressed units are for semesters.
FOUR-YEAR UNIVERSITIES AND COLLEGES

Chaffey College offers programs of courses which parallel the first two years (lower division) in four-year colleges and universities. Because requirements vary among collegiate institutions, it is advantageous for students to choose the college or university to which they plan to transfer as early in their educational career as possible. Students should concentrate on meeting admissions, preparation for the major, prerequisites, and general education requirements while attending the community college. Information on many four-year colleges and universities is available in the Chaffey College Counseling Center. Students are advised to obtain information about the chosen transfer college from that college’s catalog and website, and information available online at:

- www.csumentor.com
- www.universityofcalifornia.edu/admissions
- http://uctransfer.universityofcalifornia.edu
- www.assist.org

Information about many independent colleges and universities in California is available online at www.aiccu.org. Students planning to transfer should be aware of dates and procedures in filing the application for admission. Students are required to apply online at the CSU or UC websites listed above. Students may also personally contact the appropriate campus or institution.

Cross Enrollment - California residents currently enrolled at a California community college may enroll in one undergraduate course per academic term at any CSU or UC campus, provided the student has met course prerequisites and approval is granted by both the home and the CSU or UC campus. A nominal enrollment fee plus any material/laboratory fees associated with the course may be charged. Cross enrollment does not constitute regular admission.

To cross-enroll, the student must:
- have completed at least one term at the home campus, and:
- have a minimum 2.0 GPA in work completed, and:
- be enrolled in at least six units at their home campus and have paid appropriate fees to the home campus for the term in which they wish to cross-enroll.

California State University
There are 23 state university campuses in California.

- CSU - Bakersfield (661) 654-2782 – www.csub.edu
- CSU - Channel Islands (805) 437-8520 – www.csuci.edu
- CSU - Chico (530) 898-4636 – www.csuchico.edu
- CSU - Dominguez Hills (310) 243-3696 – www.csudh.edu
- CSU - East Bay (510) 885-3000 – www.csueastbay.edu
- CSU - Fresno (559) 278-4240 – www.csufresno.edu
- CSU - Fullerton (714) 278-2011 – www.fullerton.edu
- Humboldt State University (707) 826-4402 – www.humboldt.edu
- CSU - Long Beach (562) 985-4111 – www.csulb.edu
- CSU - Los Angeles (323) 343-3000 – www.calstatela.edu
- California Maritime Academy (707) 654-1000 – www.csu低廉.edu
- CSU - Monterey Bay (831) 582-5100 – www.csumbo.edu
- CSU - Northridge (818) 677-1200 – www.csun.edu

California State Polytechnic University, Pomona (909) 869-7659 – www.csupomona.edu
- CSU - Sacramento (916) 278-6011 – www.csus.edu
- CSU - San Bernardino (909) 537-5000 – www.csusb.edu
- San Diego State University (619) 594-5200 – www.sdsu.edu
- San Francisco State University (415) 338-1111 – www.sfsu.edu
- San Jose State University (408) 283-7500 – www.sjsu.edu
- California Polytechnic State University, San Luis Obispo (805) 756-1111 – www.calpoly.edu
- CSU - San Marcos (760) 750-4848 – www.csusm.edu
- Sonoma State University (707) 664-2880 – www.sonoma.edu
- CSU - Stanislaus (209) 667-3122 – www.csustan.edu
Preparation for Advanced Standing

Each of the California State Universities accepts a maximum of 70 semester units of credit in transferable courses completed in the community college. Junior standing requires the completion of 60 semester units in transferable courses. The community college student who was eligible to enter a state university at graduation from high school may apply to transfer at any time with a 2.0 grade point average or higher in the community college. Eligibility from high school is based upon a combination of the grade point average of work completed in the last three years of high school (excluding physical education and military science) and the SAT total or the ACT composite score.

Admission Requirements for Freshman Applicants

Refer to the California State University website for detailed information: www.calstate.edu.

Admission Eligibility - Students are eligible for admission if they:

• Have/will have graduated from high school.
• Meet the eligibility index with grade point average and test scores.
• Complete, with grades of C or better, a comprehensive pattern of college preparatory study totaling 15 units.
  • 4 years: English
  • 3 years (4 years recommended): Mathematics
  • 2 years: History and Social Science, including one year of U.S. history and one year of social science
  • 2 years: Science with a laboratory: (one year biological and one year physical)
  • 2 years: Language other than English
  • 1 year: Visual and Performing Arts: Dance, Theatre/Drama, Music, or Visual Art
  • 1 year: Electives chosen from the subject areas listed above

NOTE: Students may have to meet higher academic requirements for impacted programs.

Waiver of “Language Other than English” Requirement - Students who can demonstrate competency in a language other than English may be allowed a waiver to the foreign language requirement. Students should contact the CSU campus to which they are applying for further information.

Admission Requirements for Transfer Applicants

A student who is not admissible upon high-school graduation, or has completed college units after the summer immediately following graduation from high school, is considered a transfer student.

• Students who have completed fewer than 60 semester college units (90 quarter units) are considered lower division transfer students.
• Students who have completed 60 or more transferable semester college units (90 quarter units) are considered upper-division transfer students.
• Students who completed college units before graduation from high school, or during the summer between high school graduation and CSU enrollment, are considered first-time freshmen and must meet those admission requirements.

Lower Division Transfer Admission Requirements

Students are eligible for admission as a lower division transfer student if they:

• Have a college grade point average of 2.00 or better in all transferable college units attempted.
• Are in good standing at the last college or university attended (i.e. eligible to re-enroll).
• Meet the admission requirements for a first-time freshman, or have successfully completed the courses necessary to make up the deficiencies.
• Meet the eligibility index required of a freshman.
• Some CSU campuses may require completion of English composition and general education mathematics.
• Students should contact the CSU campus of choice to determine if there are limits on admission as a lower-division transfer.

Upper Division Transfer Admission Requirements

Students are eligible for admission as an upper division transfer student if they:

• Have a college grade point average of 2.00 or better (2.40 for non-California residents) in all transferable college units completed.
• Are in good standing at the last college or university attended (i.e. eligible to re-enroll).
• Have completed, or will complete prior to transfer*, at least 30 semester units (45 quarter units) of courses equivalent to general education requirements, with grades of C or better. The 30 units must include all of the general education requirements in communication in the English language (Area A1: oral communication; Area A2: English composition; and Area A3: critical thinking) and at least one course of at least 3 semester units (4 quarter units) required in college level mathematics (Area B4: Mathematics).
• Have completed 60 units of transferable coursework prior to transfer. Individual CSU campuses may determine by which term required courses and the 60 transferable units must be completed. Refer to www.csumentor.edu for additional application and transfer information.

Chaffey College is authorized to certify a maximum of 39 units of the 48-unit state general education requirement. See page entitled “California State University General Education Certification Course Pattern” for Chaffey courses meeting this requirement. Students have an additional option for meeting general education requirements by fulfilling the Intersegmental General Education Transfer Curriculum (IGETC). See page entitled “Intersegmental General Education Transfer Curriculum (IGETC)” for courses which meet this requirement.

The Lower Division Transfer Pattern Project (LDTP)

The LDTP-by-major project is one of several ways that California Community College (CCC) students may use to prepare for study at the California State University (CSU). For students who know the major they wish to pursue at a specific CSU campus, traditional major preparation articulation and transfer admission agreements are valuable. However, for transfer students who are uncertain about which CSU campus they will attend, the LDTP provides flexibility and options. The LDTP may also provide articulation for students whose community college does not have existing CSU articulation.

Courses Transferable to the California State University

Courses numbered from 1-99 are transferable for baccalaureate degree credit at the California State University. All baccalaureate degree level courses transferable to the California State University are marked (CSU) in the “Course Descriptions” section of this catalog.
CALIFORNIA STATE UNIVERSITY GENERAL EDUCATION
CERTIFICATION COURSE PATTERN 2009-2010

Each candidate for the bachelor’s degree from a CSU institution shall complete a pattern of general education courses which total a minimum of 48 semester units. Chaffey may certify a maximum of 39 semester units toward meeting this requirement; the remaining 9 semester units must be completed at the CSU at the upper-division level. Full general education certification from Chaffey College requires a minimum of 39 units distributed as follows:

**AREA A**
9 units required (1)

**AREAS B, C, & D**
A minimum of 9 units is required in each area

**AREA E**
3 units required

(1) Courses in Areas A1, A2, A3, and B4 must be completed with a grade of C or better.

THE FOLLOWING CHAFFEY COLLEGE COURSES MEET THIS PATTERN:

**AREA A**
ENGLISH LANGUAGE COMMUNICATION AND CRITICAL THINKING
(Minimum 9 units)

A1 Oral Communication (one course)
Communication Studies 2, 4, 6, 8

A2 Written Communication (required)
English 1A

A3 Critical Thinking (one course)
Communication Studies 72
English 1B
Philosophy 76

**AREA B**
SCIENTIFIC INQUIRY AND QUANTITATIVE REASONING
(Minimum 9 units)
Choose at least one course from each area.
At least one of the physical science or life science courses must have a laboratory.

B1 Physical Science
Astronomy 25, 26, 35*, 36*
Chemistry 7*, 8, 9*, 10*, 12**, 21 & 21L1 & 21L2*
Earth Science 1, 1& 1L*, 5, 5 & 5L*, 8
Geography 4, 4 & 5*, 6*
Geology 1*, 2*, 6, 20*
Physical Science 10*
Physics 5, 5 & 6*, 20A*, 30A*, 44**,45*

B2 Life Science
Anthropology 1, 1& 1L*
Biology 1*, 2*, 3*, 4*, 5*, 10, 10 & 10L*, 11, 12, 20*, 22*, 23, 23 & 23L*, 50*
Geography 6*

B3 Laboratory Activity
This requirement is satisfied by completion of any course in B1 or B2 with a laboratory.
Those courses are identified with an asterisk (*).

B4 Mathematics
Mathematics 4, 25, 31, 60, 61, 65A, 81*
Social Science 10
Statistics 10

**AREA C**
ARTS AND HUMANITIES
(Minimum 9 units—choose at least one course from each area)

C1. Arts
Art 1, 3, 5, 6, 7, 8, 9, 10, 11, 12, 14, 16, 18, 20, 44, 64
Communication Studies 14
Dance 1
Fashion Design 20, 45
Fine Arts 50
Interior Design 11, 12
Music 1, 2A, 2B, 3A, 4, 21, 22*, 26
Photography 1, 10
Theatre Arts 1, 4, 5, 10, 12, 64

C2 Humanities
American Sign Language 1*, 2, 3, 4
Arabic 1, 2
Chinese 1, 2
English 1C, 30, 32, 33, 68, 70A, 70B, 71, 74, 75A, 75B, 76, 79, 80A, 80B, 81
French 1, 2, 3, 4
German 1, 2
History 1, 2, 4*, 7, 16*, 20, 40*
Humanities 5, 6, 20
Philosophy 70, 72, 73, 77, 78, 80, 81, 82
Spanish 1 or 1SS* or 1A and 1B, 2 or 2SS or 2A and 2B, 3, 4, 7, 8, 13

C3 Humanities
American Sign Language 1+, 2, 3, 4
Arabic 1, 2
Chinese 1, 2
English 1C, 30, 32, 33, 68, 70A, 70B, 71, 74, 75A, 75B, 76, 79, 80A, 80B, 81
French 1, 2, 3, 4
German 1, 2
History 1, 2, 4*, 7, 16*, 20, 40*
Humanities 5, 6, 20
Philosophy 70, 72, 73, 77, 78, 80, 81, 82
Spanish 1 or 1SS* or 1A and 1B, 2 or 2SS or 2A and 2B, 3, 4, 7, 8, 13

**AREA D**
SOCIAL SCIENCES
(Minimum 9 units—choose courses from two different disciplines)

Administration of Justice 1+
American Sign Language 16
Anthropology 2, 3
Child Development and Education 2, 4, 6
Communication Studies 12, 74, 76, 78
Consumer Studies 11
Economics 1, 2, 4, 8
Geography 1, 3, 10, 11*,
Gerontology 11, 18, 21, 22
History 1, 2, 4, 5, 6, 7, 9, 10, 12, 16, 17, 18, 20, 40*, 50, 51, 70, 71
Political Science 1, 2, 4, 7, 10, 11, 25
Psychology 1, 2, 20, 21, 25, 65
Social Science 22, 24, 25, 26
Sociology 10, 14, 15, 16*,18

**AREA E**
LIFELONG LEARNING AND SELF-DEVELOPMENT
(Minimum 3 units)

Biology 14
Child Development and Education 2º
Consumer Studies 40
Gerontology 22
Guidance 3
Nursing and Public Health 5, 15, 21
Physical Education Lecture 15
Psychology 5, 25
Social Science 17, 22
Sociology 16

#=Course must be completed Spring 2003 or later.
+=Course must be completed Fall 2003 or later.
**Course must be completed Fall 2005 or later.
•Course must be completed Fall 2006 or later.
•Course must be completed Fall 2007 or later.

COURSES COUNT IN ONE AREA ONLY.

**CSU REQUIREMENT**
The State Requirement in U.S. HISTORY, CONSTITUTION AND AMERICAN IDEALS may be met by completion of History 17 or 18, and Political Science 1 or 11
**INTERSEGMENTAL GENERAL EDUCATION**

**TRANSFER CURRICULUM (IGETC) 2009-2010**

Completion of the Intersegmental General Education Transfer Curriculum (IGETC) will permit a student to transfer from Chaffey College to a campus in either the California State University (CSU) or University of California (UC) system without the need, after transfer, to take additional lower-division general education courses to satisfy campus general education. Depending on a student’s major and field of interest, the student may find it advantageous to take courses fulfilling either the CSU’s general education requirements or those of the UC campus or college to which the student plans to transfer.

Courses used for certification must be completed with grades “C” or better (C- grades are not acceptable), and be a minimum of 3 semester/4-5 quarter units. A course can not be certified unless it was on the IGETC list during the year in which it was taken by the student. Students beginning in Fall 2009 must follow the 2009-2010 IGETC requirements.

Partial IGETC certification is allowed with a maximum of two courses missing, which have to be completed after transfer. Students need Areas 1 and 2 of the transfer curriculum completed to meet minimum transfer admission requirements. Partial certification acknowledging a deficiency in Area 1 and/or Area 2 may also indicate a student does not meet the minimum transfer requirements.

### AREA 1 ENGLISH COMMUNICATION

**Group A:** English Composition *(CSU & UC - Required)*
- English 1A

**Group B:** Critical Thinking-English Composition *(CSU & UC - Required)*
- English 1B

**Group C:** Oral Communication *(CSU Requirement Only - 1 course)*
- Communication Studies 2, 6, 8

### AREA 2 MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING *(CSU & UC - 1 course required)*
- Mathematics 25#*, 60, 61*, 65A, 65B, 75, 81#, 85
- Statistics 10#

### AREA 3 ARTS AND HUMANITIES *(CSU & UC – 3 courses minimum, with at least one course from Arts and one from Humanities)*

**ARTS:**
- Art 1, 3, 5, 6, 7, 9, 11
- Cinema 25, 26
- Dance 1
- Fine Arts 50
- Music 2A, 2B, 3A, 3B, 4, 21*, 22*, 26*
- Theatre Arts 1, 4, 5

**HUMANITIES:**
- American Sign Language 3, 4
- English 1C, 30, 32, 33, 68, 70A, 70B, 71, 74#, 75A, 75B, 76, 79, 80A, 80B, 81
- French 3, 4
- History 1, 2, 4#, 5, 6, 7, 9, 10, 16#, 20, 25, 40#, 50, 51, 70, 71
- Humanities 5, 6, 20
- Philosophy 70, 72, 73, 80, 81, 82
- Social Science 40X
- Spanish 3, 4, 7, 8, 13

### AREA 4 SOCIAL AND BEHAVIORAL SCIENCES *(CSU & UC – 3 courses minimum, from at least two disciplines)*

**American Sign Language 16**

**Anthropology 2, 3**

**Child Development and Education 2*, 4**

**Communication Studies 12, 74**

**Economics 1*, 2, 4, 8**

**Geography 1*, 3, 10, 11*, 18**

**Gerontology 18**

**History 4#, 5, 6, 7, 9, 10, 16#, 17, 18, 20, 40#, 50, 51, 70, 71**

**Political Science 1, 2, 4, 7, 10, 11, 25**

**Psychology 1*, 20*, 25*, 65**

**Social Science 24, 25, 26**

**Sociology 10, 14, 15, 16*, 18*, 70**

### AREA 5 PHYSICAL AND BIOLOGICAL SCIENCES *(CSU & UC – 2 courses minimum, with at least one Physical Science course and one Biological Science course, one of which must include a laboratory. Lab courses are underlined.)*

**PHYSICAL SCIENCES:**
- Astronomy 29*, 26, 35
- Chemistry 8*, 9*, 10*, 12*, 21 & 21L1 & 21L2*, 22 & 22L1 & 22L2*, 70, 75A, 75B
- Earth Science 1, 1 & 1L, 5*, 5 & 5L*, 8*
- Geography 4, 4 & 5, 6*, 11*
- Geology 1, 2, 20, 80, 85
- Physical Science 10
- Physics 5*, 5 & 6*, 20A*, 20B*, 30A*, 30B*, 44*, 45*, 46*, 47*

**BIOLOGICAL SCIENCES:**
- Anthropology 1, 1 & 1L
- Biology 1*, 2, 4*, 5, 10*, 11, 12, 20, 22, 23, 23 & 23L, 50, 52*, 55, 56, 63

**LANGUAGE OTHER THAN ENGLISH UC Requirement Only**

Complete 2 years of the same foreign language of high school level work with a grade of C or better, OR earn a score of 3 or higher on the Foreign Language Advanced Placement Test, OR 550 on the College Board Achievement Test in Foreign Language, OR complete, with grades of C or better, two years of formal schooling at the sixth grade level or higher, in an institution where the language of instruction is not English, OR complete one of the following courses:

- American Sign Language 2
- Arabic 2
- Chinese 2
- French 2*
- German 2*
- Spanish 2*, 2B*, 25S*
- (American Sign Language 3 or 4, or French 3 or 4, or Spanish 3 or 4 may be used to validate this requirement.)

COURSES MAY COUNT IN ONLY ONE AREA

**GRADUATION REQUIREMENT IN U.S. HISTORY, CONSTITUTION, AND AMERICAN IDEALS** *(CSU requirement only. Not part of IGETC; may be completed prior to transfer.)*

CSU requires 2 courses, one from Group 1 and one from Group 2.

**Group 1 Political Science 1 or 11**

**Group 2 History 17 or 18**

Courses used to meet this requirement may not be used to satisfy requirements for IGETC. Please consult with a counselor for additional information.
Partial Certification of the Intersegmental General Education Transfer Curriculum (IGETC)

Partial certification is defined as having completed all but two (2) courses on the IGETC pattern. The student petitions for certification and either the complete or partial certification is sent by the CCC to the UC or CSU. Each UC or CSU campus informs students that have submitted a partially certified IGETC of the specific timelines and courses needed to complete the IGETC. The UC or CSU is responsible for verifying completion of the missing IGETC course(s). The student may complete the missing courses in one or more of the following ways, or in some other manner acceptable to the receiving institution:

1. Take an approved IGETC course in the area(s) to be completed, at any California Community College, at a time that does not require concurrent enrollment such as during the summer.
2. Take a course approved by the UC or CSU campus of attendance in the area(s) to be completed, at a U.S. regionally accredited institution, at a time that does not require concurrent enrollment such as during the summer.
3. Take an approved IGETC course in the area(s) to be completed, at any California Community College, while concurrently enrolled at a UC or CSU campus. The student will be subject to the UC or CSU campus rules regarding concurrent enrollment, so this option may not be available.
4. Take a course approved by the UC or CSU campus of attendance in the area(s) to be completed, at a United States regionally accredited institution, while concurrently enrolled at a UC or CSU campus. The student will be subject to the UC or CSU campus rules regarding concurrent enrollment, so this option may not be available.
5. Take a comparable course at a UC or CSU campus in the area(s) to be completed. This option is at the discretion of each UC or CSU campus, so it may not be a choice available to the student.

WARNING: Students need Areas 1 and 2 completed to meet minimum transfer admission requirements. Therefore, partial certification that acknowledges a deficiency in Area 1 and/or Area 2 may also indicate a student who does not meet minimum transfer requirements.

UNIVERSITY OF CALIFORNIA

The University of California includes nine general campuses throughout the state and a tenth campus in San Francisco that offers graduate and professional programs in the health sciences.

1. University of California, Davis - Q
   1 Shields Avenue, Davis, CA 95616
   (530) 752-1011 – www.ucdavis.edu

2. University of California, San Francisco - Q
   600 16th Street
   San Francisco, CA 94107
   (415) 476-9000 – www.ucsf.edu

3. University of California, Berkeley - S
   2200 University Ave.
   Berkeley, CA 94720
   (510) 642-6000 – www.berkeley.edu

4. University of California, Santa Cruz - Q
   1156 High Street, Santa Cruz, CA 95064
   (831) 459-0111 – www.ucsc.edu

5. University of California, Santa Barbara - Q
   1210 Chanticleer Hall
   Santa Barbara, CA 93106
   (805) 999-8000 – www.ucsb.edu

6. University of California, Los Angeles - Q
   405 Hilgard Ave.
   Los Angeles, CA 90095
   (310) 825-4321 – www.ucla.edu

7. University of California, Riverside - Q
   900 University Ave.
   Riverside, CA 92521
   (909) 787-1012 – www.ucr.edu

8. University of California, Irvine - Q
   Irvine, CA 92697
   (949) 824-5011 – www.uci.edu

9. University of California, San Diego - Q
   9500 Gilman Drive, La Jolla, CA 92039
   (858) 534-2230 – www.ucsd.edu

10. University of California, Merced - S
    5200 N. Lake Road
    Merced, CA 95343
    (209) 724-4400 – www.ucmerced.edu

Transfer Eligibility Requirements

(Excerpted from the University of California Pamphlet “Answers for Transfer”)

A transfer applicant, according to the University, is a student who has graduated from high school and enrolled in a regular session at another college or university. A student who meets this definition cannot disregard their college record and apply as a freshman.

The requirements described below represent the minimum academic standards students must attain to be eligible for admission to the University. However, meeting the minimum eligibility requirements does not guarantee admission, as admission to the campus and program of choice often require students to meet more demanding standards.

California Residents - To qualify for admission to the University as a transfer student, a student must meet one of the three sets of requirement described below. The pathway the student follows depends upon whether they were eligible for admission to the University when they graduated from high school. California residents...
must have at least a C (2.0) average in all transferable college coursework. Subject, Scholarship, and Examination requirements referred to below are described in detail in the “Answers for Transfers” pamphlet in the chapter on Admission as a Freshman.*

Options for meeting admission requirements are:

1. Students who were eligible for admission to the University when they graduated from high school – meaning they satisfied the Subject, Scholarship, and Examination requirements, or were identified by the University during the senior year in high school as eligible under the Eligibility in the Local Context (ELC) program – are eligible to transfer if they have a C (2.0) average in transferable coursework.

2. Students who met the Scholarship Requirement, but not the Subject Requirement, when they graduated from high school must take transferable college courses in the missing subject areas, earning a C or better in each required course, and have an overall C average in all transferable coursework.

3. Students who were not eligible for admission to the University when they graduated from high school because they did not meet the Scholarship Requirement must:

   A. Complete 60 semester units or 90 quarter units of transferable college credit with a grade point average of at least 2.4 (no more than 14 semester/21 quarter units may be taken pass/not-pass), and

   B. Complete the following course pattern, earning a grade of C or better in each course:

   - two transferable college courses (3 semester or 4-5 quarter units each) in English composition; and
   - one transferable college course (3 semester or 4-5 quarter units) in mathematical concepts and quantitative reasoning; and
   - four transferable college courses (3 semester or 4-5 quarter units each) chosen from at least two the following subject areas: arts and humanities, social and behavioral sciences, and physical and biological sciences.

(Students who satisfy the Intersegmental General Education Transfer Curriculum [IGETC] prior to transfer to the University will satisfy Option 3B above. Refer to the “Answers for Transfers” pamphlet * and the Chaffey College Counseling Department for additional information.)

Non-Residents - The minimum admission requirements for non-residents are very similar to those for residents. Students are advised to consult with the Admissions Office at the desired University of California campus for details. In all cases, however, non-residents must have a grade point average of 2.8 or higher in all transferable college coursework.

Deadlines for Completing Courses Required for Admission - Prospective transfer applicants planning to meet the University of California’s minimum admission requirements using Option 3 described earlier, must satisfy certain aspects of the requirements by the end of the spring term preceding fall enrollment at some UC campuses. Students should contact the UC campus Admissions Office for information about course completion deadlines when applying for the winter and spring terms.

Transfer GPA - In 2007, the average GPA of transfer students admitted to the University of California was 3.3. However, the average GPA varies widely by campus and by major, and the GPA is only one factor by which an applicant is evaluated. Other factors, such as course patterns, are also considered. The criteria used to select students for impacted programs - those where the number of applicants exceeds the number of spaces available - are described for each campus in the “Answers for Transfers” pamphlet.*

Grades of D - A grade of D in a transferable course is acceptable and may be counted toward the units described under Option 3A, however, D grades are not acceptable to clear subject requirements described in Options 1, 2, and 3B. In some cases, grades of D are not acceptable in courses used to satisfy major or general education requirements.

Admission by Exception - Because all students have not had the same opportunities to prepare for higher education, the University gives special consideration to a limited number of applicants who show potential to succeed at the University even though they do not meet the minimum admission requirements. Decisions on admission by exception are made at the individual campus level. More information may be obtained from the Admissions Office at the campus where the student wishes to attend.

Selection Criteria - The University of California makes every effort to provide a place on one of its campuses for all California resident applicants who meet the minimum admission requirements and file an application during the appropriate period. However in recent years, the number of applicants for some campuses and some majors has far exceeded the number of spaces available. When a campus cannot admit all eligible applicants, it uses standards to select students that are more demanding than the minimum requirements. These standards, called selection criteria, identify students who have demonstrated the capacity for high academic achievement and who have a variety of other qualities that can contribute to the strength and diversity of the campus community.

*Available at the Chaffey College Counseling Office, at University of California campuses, and on the UC website at www.universityofcalifornia.edu/admissions.

Courses Transferable to the University of California

All baccalaureate degree level courses transferable to the University of California are marked (UC) in the “Course Descriptions” section of this catalog.

Some courses are marked as (UC credit limitations). This caveat may be due to a restriction on units or to variable unit special topics, internship, and/or independent study courses. Credit for such courses is given only after a review of the scope and content of the course by the enrolled UC campus. This usually occurs after transfer and may require recommendations from faculty. UC does not grant credit for variable topics courses in Journalism, Photography, Health, Business Administration, Architecture, Administration of Justice (Criminology) or Library departments because of credit restrictions in these areas.

Private Colleges and Universities

Admission requirements to private colleges and universities vary with each institution. Consult with the transfer school catalog and/or website for specific information. Students are encouraged to visit the Chaffey Transfer Center to review transfer college publications, meet with a representative and become familiar with the Transfer Center resources and website.
PROGRAMS OF STUDY

DEGREE AND CERTIFICATE PROGRAMS

These are the Associate Degree majors/areas of emphasis and Certificates currently available at Chaffey. The courses to fulfill the requirements for each listed program are detailed in the following pages. All courses used to fulfill Associate Degree majors and state- or locally-approved Certificates must be completed with a minimum grade of C. All programs are subject to change; students should consult with a counselor for further information.

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<td></td>
<td></td>
</tr>
<tr>
<td>Coaching</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Science</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Physics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Science</td>
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<tr>
<td>Psychology</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Radiologic Technology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real Estate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real Estate Salesperson</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theatre Arts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University Studies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts and Humanities Emphasis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences Emphasis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics and Science Emphasis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business and Technology Emphasis</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Accounting program is designed to: (1) prepare non-transfer accounting students for entry level positions by making the accounting certificate and/or the two-year degree in accounting available to them; (2) prepare transfer accounting students with appropriate background for upper division courses; and (3) provide non-accounting majors with sufficient expertise to enable them to make intelligent use of accounting information.

To obtain an Associate's Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

**Major requirements for the Associate in Science Degree:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>ACCTG 1A Principles of Accounting I</td>
</tr>
<tr>
<td>4</td>
<td>ACCTG 1B Principles of Accounting II</td>
</tr>
<tr>
<td>3</td>
<td>ACCTG 70 Cost Accounting (or ACCTG 430*, Accounting for Governmental and Not-for-Profit Organizations, 4, or ACCTGFS 453*, U.S. and California Income Tax Preparation, 4)</td>
</tr>
<tr>
<td>3</td>
<td>BUS 28A Business Law I (or BUSOT 63A, Microsoft Office Excel, Specialist 1.5, and BUSOT 63B, Microsoft Office Excel - Expert, 1.5)</td>
</tr>
<tr>
<td>3</td>
<td>BUSOT 63 Microsoft Office Excel - Comprehensive</td>
</tr>
<tr>
<td>3</td>
<td>CIS 1 Introduction to Computer Information Systems</td>
</tr>
<tr>
<td>4</td>
<td>STAT 10 Elementary Statistics</td>
</tr>
</tbody>
</table>

**Total units for the major** 24-25

**Requirements for the Accounting Certificate:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>ACCTG 1A Principles of Accounting I</td>
</tr>
<tr>
<td>4</td>
<td>ACCTG 1B Principles of Accounting II</td>
</tr>
<tr>
<td>3</td>
<td>BUSOT 60A Microsoft Office Word - Specialist</td>
</tr>
<tr>
<td>3</td>
<td>BUSOT 63 Microsoft Office Excel - Comprehensive</td>
</tr>
<tr>
<td>3</td>
<td>BUSOT 455 Fundamentals of English for Business</td>
</tr>
<tr>
<td>3</td>
<td>CIS 1 Introduction to Computer Information Systems</td>
</tr>
<tr>
<td>1.5</td>
<td>ACCTG 430 Accounting for Governmental and for Not-for-Profit Organizations</td>
</tr>
<tr>
<td>1.5</td>
<td>ACCTG 459 Simplified Commercial Accounting Software</td>
</tr>
<tr>
<td>1.5</td>
<td>ACCTG 460 Commercial Accounting Software</td>
</tr>
<tr>
<td>1.5</td>
<td>ACCTG 461 Advanced Commercial Accounting Software</td>
</tr>
<tr>
<td>1.5</td>
<td>ACCTG 462 Advanced Techniques in Accounting Programs</td>
</tr>
<tr>
<td>4</td>
<td>ACCTGFS 453 U.S. and California Income Tax Preparation</td>
</tr>
<tr>
<td>4</td>
<td>ACCTGFS 454 Introduction to the Taxation of Corporations and Partnerships</td>
</tr>
<tr>
<td>1.5</td>
<td>CIS 68 Using the Internet</td>
</tr>
</tbody>
</table>

**Total units for the certificate** 33-34

*ACCTG 430 and ACCTGFS 453 may not be counted twice

**Accounting for Government and Not-For-Profit Organizations**

This program is intended for individuals desiring employment in government or not-for-profit organizations. Upon the successful completion of this certificate, candidates will be proficient in fund and not-for-profit accounting and possess the ability to perform basic accounting functions.

**Requirements for the Accounting for Government and Not-For-Profit Organizations Certificate (Non-transcripted):**

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>ACCTG 1A Principles of Accounting I</td>
</tr>
<tr>
<td>4</td>
<td>ACCTG 430 Accounting for Governmental and Not-For-Profit Organizations</td>
</tr>
<tr>
<td>3</td>
<td>ACCTG 435 Payroll Accounting</td>
</tr>
<tr>
<td>1.5</td>
<td>ACCTG 459 Simplified Commercial Accounting Software</td>
</tr>
<tr>
<td>1.5</td>
<td>ACCTG 462 Advanced Techniques in Accounting Programs</td>
</tr>
<tr>
<td>3</td>
<td>ACCTG 460 Commercial Accounting Software</td>
</tr>
<tr>
<td>3</td>
<td>ACCTG 461 Advanced Commercial Accounting Software</td>
</tr>
<tr>
<td>3</td>
<td>ACCTG 462 Advanced Techniques in Accounting Programs</td>
</tr>
<tr>
<td>4</td>
<td>ACCTGFS 453 U.S. and California Income Tax Preparation</td>
</tr>
</tbody>
</table>

**Total units for the certificate** 14

**Accounting Paraprofessional**

*(Computer Software Emphasis)*

This program is designed to develop the skills and concepts necessary to obtain entry-level positions in small businesses which use computerized accounting systems.

**Requirements for the Accounting Paraprofessional Certificate:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>ACCTG 1A Principles of Accounting I</td>
</tr>
<tr>
<td>4</td>
<td>ACCTG 1B Principles of Accounting II</td>
</tr>
<tr>
<td>3</td>
<td>BUSOT 60A Microsoft Office Word - Specialist</td>
</tr>
<tr>
<td>3</td>
<td>BUSOT 63 Microsoft Office Excel - Comprehensive</td>
</tr>
<tr>
<td>3</td>
<td>BUSOT 455 Fundamentals of English for Business</td>
</tr>
<tr>
<td>3</td>
<td>CIS 1 Introduction to Computer Information Systems</td>
</tr>
<tr>
<td>1.5</td>
<td>ACCTG 430 Accounting for Governmental and for Not-for-Profit Organizations</td>
</tr>
<tr>
<td>1.5</td>
<td>ACCTG 459 Simplified Commercial Accounting Software</td>
</tr>
<tr>
<td>1.5</td>
<td>ACCTG 460 Commercial Accounting Software</td>
</tr>
<tr>
<td>1.5</td>
<td>ACCTG 461 Advanced Commercial Accounting Software</td>
</tr>
<tr>
<td>1.5</td>
<td>ACCTG 462 Advanced Techniques in Accounting Programs</td>
</tr>
<tr>
<td>4</td>
<td>ACCTGFS 453 U.S. and California Income Tax Preparation</td>
</tr>
</tbody>
</table>

**Total units for the certificate** 26
ACCOUNTING AND FINANCIAL PLANNING

Financial Planning

The Financial Planning certificate provides students with basic accounting skills combined with training in financial planning. Students completing this certificate can assist individuals and companies within the areas of budgeting, taxes, and financial planning. This certificate also serves as an excellent foundation for students wishing to take the National Association of Securities Dealers series 6 and 7 examinations.

Requirements for the Financial Planning Certificate (Non-transcripted):

Units

- ACCTGFS 440 Introduction to Financial Planning 3
- ACCTGFS 442 Fundamentals of Finance and Investing 3
- ACCTGFS 453 U.S. and California Income Tax Preparation 4
- ACCTGFS 465 Financial Accounting for the Non-Accounting Major (or ACCTG 1A, Principles of Accounting I, 4)

Plus three units from the following:

- ACCTG 459 Simplified Commercial Accounting Software 1.5
- ACCTG 462 Advanced Techniques in Accounting Software Programs 1.5
- ACCTGFS 450 Tax Preparation for Small Business 1.5
- BUS 60 Business Ethics 3

Total units for the certificate 16-17

Payroll and Income Tax Preparer

This program is intended for individuals desiring to enter the tax preparation and/or payroll field with a minimum of course requirements. Upon successful completion of this Chaffey certificate, candidates will possess the knowledge and analytical tools necessary to use accounting data effectively. Additionally, by completing the tax class they will be recognized by the State of California as a Registered Tax Preparer.

Requirements for the Payroll and Income Tax Preparer Certificate:

Units

- ACCTG 1A Principles of Accounting I 4
- ACCTG 435 Payroll Accounting 3
- ACCTGFS 454 U.S. and California Income Tax Preparation (or ACCTGFS 454. Introduction to the Taxation of Corporations and Partnerships)

Plus one course from the following:

- ACCTG 459 Simplified Commercial Accounting Software 1.5
- ACCTG 462 Advanced Techniques in Accounting Software Programs 1.5
- ACCTG 460 Commercial Accounting Software 3

Total units for the major 14

ADMINISTRATION OF JUSTICE

The Administration of Justice major prepares students for a variety of careers in the criminal justice system. Courses within the program acquaint students with the American Justice system, crime causes, the role of law enforcement, roles of administration of justice practitioners, procedural and constitutional rights of defendants, legal defenses, criminal courtroom procedure, evidence procedures, juvenile procedures, and misdemeanor and felony violations of criminal law.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

Units

- AJ 1 Introduction to the Criminal Justice System 3
- AJ 2 Concepts of Criminal Law 3
- AJ 3 Principles and Procedures of the Justice System 3
- AJ 4 Community-Based Problem Solving and the Justice System 3
- AJ 5 Legal Aspects of Evidence 3
- AJ 406 Juvenile Procedures 3
- AJ 407 Substantive Law 3

Plus one course from the following:

- AJ 408 Patrol Operations 3
- AJ 409 Criminal Investigation 3
- AJ 410 Narcotics and Vice Investigation 3
- AJ 412 Writing for Criminal Justice Professionals 3
- AJ 413 Police Supervision, Leadership, and Management 3
- AJ 414 Criminology 3
- AJ 415 Principles and Practices of Interviewing and Investigation 1.5
- AJ 416 Crime Scene Sketching and Notetaking 1.5

Total units for the major 22.5-24

Requirements for the Administration of Justice Certificate:

Same as the major requirements for the A.S. Degree.

Total units for the certificate 22.5-24
ANTHROPOLOGY

Anthropology is the study of people, ranging from the origin and biological evolution of our species to tracing the prehistory and history of cultures to defining group behavior in non-western and western cultures. Thus, anthropology is considered to be the most holistic of the social sciences. The goal of anthropology is to answer the question, “What is humankind?” from a biological, prehistoric, and behavioral perspective. The integrative approach to the discipline links anthropology with the life and social sciences, and has strong ties with disciplines ranging from biology and psychology to political science, history, and the arts, providing a humanistic perspective. Anthropology is particularly suited to persons with a wide range of interests as well as offering specific insights to others in more specialized disciplines. The study of anthropology offers preparation for careers in teaching, law enforcement, medicine and health care, and museums, to name just a few. Increasingly, business and industry leaders are employing anthropologists in key positions because their holistic perspective and broad cultural understanding prepare them to address modern-day challenges.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Arts Degree:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ANTHRO 1 Introduction to Physical Anthropology</td>
</tr>
<tr>
<td>1</td>
<td>ANTHRO 1L Laboratory for Physical Anthropology</td>
</tr>
<tr>
<td>3</td>
<td>ANTHRO 2 Introduction to Archaeology</td>
</tr>
<tr>
<td>3</td>
<td>ANTHRO 3 Introduction to Social and Cultural Anthropology</td>
</tr>
</tbody>
</table>

Plus one course from the following:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>SCSCI 10 Statistics for Social Science</td>
</tr>
<tr>
<td>4</td>
<td>STAT 10 Elementary Statistics</td>
</tr>
</tbody>
</table>

Plus three units from the following:

Communication Studies 2, 12, 72, 74, 76
Fine Arts 50

Plus four units from the following:

Biology 1, 11, 12, 50
Chemistry 10, 21 & 21L1 & 21L2, 22 & 22L1 & 22L2
Geography 1, 4, 5
Geology 1, 2
Physics 5 & 6, 20A

Plus three units from the following:

Economics 1, 2
History 5, 6
Philosophy 70, 76, 80, 81, 82
Political Science 7, 10
Psychology 1
Sociology 10

Total units for the major 24

NOTE: A modern language is highly recommended for transfer students.

ART

The Art program provides preparation for university and college transfer and/or careers in fine arts, visual communications, and graphic communications/digital media, with an emphasis on individual creativity and development.

To transfer, students should consult with the intended transfer institution to obtain a list of appropriate courses to complete at Chaffey College. For the Associate in Arts degree, students follow the program listed for one of the following areas of emphasis.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Arts Degree:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>ART 10 Fundamentals of Design in Two Dimensions</td>
</tr>
<tr>
<td>4</td>
<td>ART 12 Fundamentals of Design in Three Dimensions</td>
</tr>
<tr>
<td>3</td>
<td>ART 14 Introduction to Drawing</td>
</tr>
<tr>
<td>3</td>
<td>ART 480 Portfolio and Presentation</td>
</tr>
</tbody>
</table>

(Take ART 480 near the end of program.)

Plus completion of one of the following emphases:

Art Emphasis

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>ART 16 Introduction to Painting</td>
</tr>
<tr>
<td>3</td>
<td>ART 18 Introduction to Ceramics</td>
</tr>
</tbody>
</table>

(or ART 20, Ceramic Sculpture, 4)

PHOTO 10 Beginning Photography

(or PHOTO 7, Introduction to Digital Photography)

Plus one course from the following:

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ART 3 Contemporary Art: 1950-Present</td>
</tr>
<tr>
<td>3</td>
<td>ART 5 Art History of Western World: 1400 - Contemporary</td>
</tr>
<tr>
<td>3</td>
<td>ART 6 Women Artists in History</td>
</tr>
<tr>
<td>3</td>
<td>ART 8 Contemporary Media, Art and Visual Language</td>
</tr>
<tr>
<td>3</td>
<td>ART 11 Asian Art History</td>
</tr>
<tr>
<td>3</td>
<td>ART 407 History of Design</td>
</tr>
</tbody>
</table>

Ceramics Studio Emphasis

<table>
<thead>
<tr>
<th>Units</th>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>14</td>
<td>ART 1 Contemporary Art: 1950-Present</td>
</tr>
<tr>
<td>3</td>
<td>ART 18 Introduction to Ceramics</td>
</tr>
<tr>
<td>4</td>
<td>ART 20 Ceramic Sculpture</td>
</tr>
<tr>
<td>3</td>
<td>ART 35 Intermediate Ceramics</td>
</tr>
<tr>
<td>3</td>
<td>ART 44 Mixed-Media Studio and Theory</td>
</tr>
</tbody>
</table>

Total units for the major 30-32

Recommended Courses: ART 3 & 5 (above), ART 44

Note: Approved special topics (ART 92A-H) with emphasis in ceramics may be substituted for one ceramics course with prior approval from the school dean or designee.

Recommended Courses: ART 9, 16, 40, 410, 412
### Drawing/Painting Studio Emphasis

**Units**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1</td>
<td>Contemporary Art: 1950 - Present</td>
<td>3</td>
</tr>
<tr>
<td>ART 16</td>
<td>Introduction to Painting</td>
<td>3</td>
</tr>
<tr>
<td>ART 30</td>
<td>Figure Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 32</td>
<td>Intermediate Drawing</td>
<td>4</td>
</tr>
<tr>
<td>ART 34</td>
<td>Intermediate Painting</td>
<td>4</td>
</tr>
</tbody>
</table>

Total units for the major: **31**

**Recommended Courses:** ART 8, 44, 62A, PHOTO 7, 9, 10

### New Media Emphasis

**Units**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ART 1</td>
<td>Contemporary Art: 1950 - Present</td>
<td>3</td>
</tr>
<tr>
<td>ART 8</td>
<td>Contemporary Media, Art and Visual Language</td>
<td>3</td>
</tr>
<tr>
<td>ART 44</td>
<td>Mixed-Media Studio and Theory</td>
<td>3</td>
</tr>
<tr>
<td>ART 63</td>
<td>Introduction to Graphic Design</td>
<td>4</td>
</tr>
</tbody>
</table>

Total units for the major: **27**

**Recommended Courses:** ART 6, 82; BRDCAST 3; CINEMA 25; COMSTD 12; MUSIC 4; PHOTO 1, 7, 9, 10; THEATRE 1, 10

### ART/DIGITAL MEDIA

The Digital Media program is a cross-discipline program designed to prepare students for employment in the fields of Web Design, Graphic Design, Motion Graphics, Sound Design, and Interactive Multimedia. Both degrees and certificates are offered in three separate digital media career field emphases.

### Major requirements for the Associate in Arts Degree:

**Units**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 10</td>
<td>Fundamentals of Design in Two Dimensions</td>
<td>4</td>
</tr>
<tr>
<td>ART 63</td>
<td>Introduction to Graphic Design</td>
<td>4</td>
</tr>
<tr>
<td>ART 82</td>
<td>Introduction to Multimedia</td>
<td>4</td>
</tr>
<tr>
<td>ART 480</td>
<td>Portfolio and Presentation</td>
<td>3</td>
</tr>
</tbody>
</table>

(Take ART 480 near the end of program.)

### Plus completion of one of the following emphases:

#### Computer Graphic Design for Print Media Emphasis

**Units**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1</td>
<td>Contemporary Art: 1950 - Present</td>
<td>3</td>
</tr>
<tr>
<td>ART 14</td>
<td>Introduction to Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 73</td>
<td>Typography and Layout</td>
<td>4</td>
</tr>
<tr>
<td>ART 83</td>
<td>Internet and Web Design</td>
<td>4</td>
</tr>
<tr>
<td>ART 407</td>
<td>History of Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 474</td>
<td>Identity System Design</td>
<td>4</td>
</tr>
<tr>
<td>PHOTO 10</td>
<td>Beginning Photography</td>
<td>4</td>
</tr>
</tbody>
</table>

(Take ART 73, 83, 407, 474 near the end of program.)

Total units for the major: **40**

### Requirements for the Computer Graphic Design for Print Media Certificate:

Same as the major requirements for the A.A. Degree (core + emphasis)

Total units for the certificate: **40**

**Recommended Courses:** ART 5, 8, 12; PHOTO 9, 410

#### Design for Multimedia Emphasis

**Units**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1</td>
<td>Contemporary Art: 1950 - Present</td>
<td>3</td>
</tr>
<tr>
<td>ART 14</td>
<td>Introduction to Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 83</td>
<td>Internet and Web Design</td>
<td>4</td>
</tr>
<tr>
<td>ART 482</td>
<td>Editing Digital Media</td>
<td>4</td>
</tr>
<tr>
<td>ART 484</td>
<td>2D Motion Graphic Animation</td>
<td>4</td>
</tr>
</tbody>
</table>

**Plus one of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 8</td>
<td>Contemporary Media, Art and Visual Language</td>
<td>3</td>
</tr>
<tr>
<td>ART 400</td>
<td>Fundamentals of Animation</td>
<td>4</td>
</tr>
<tr>
<td>CINEMA 25</td>
<td>Survey of World Cinema</td>
<td>3</td>
</tr>
<tr>
<td>PHOTO 10</td>
<td>Beginning Photography</td>
<td>4</td>
</tr>
</tbody>
</table>

(Take PHOTO 10 near the end of program.)

Total units for the major: **36-37**

**Requirements for the Design for Multimedia Certificate:**

Same as the major requirements for the A.A. Degree (core + emphasis)

Total units for the certificate: **36-37**

**Recommended Courses:** ART 5, 12, 407; CINEMA 26

#### Web Design Emphasis

**Units**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHOTO 7</td>
<td>Beginning Photography</td>
<td>4</td>
</tr>
</tbody>
</table>

(Take PHOTO 7 near the end of program.)

Total units for the major: **26**

**Requirements for the Web Design Certificate:**

Same as the major requirements for the A.A. Degree (core + emphasis)

Total units for the certificate: **26**

**Recommended Courses:** ART 407, 484; PHOTO 9

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**Chaffey College CATALOG 2009-2010**

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**PROGRAMS OF STUDY**

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PROGRAMS OF STUDY

ART/VISUAL COMMUNICATION:

ILLUSTRATION

The Illustration program develops students’ ability to express concepts and ideas in varied visual forms. Primary emphasis is on concepts and skill development to facilitate student preparation of a portfolio for use in conjunction with employment interviews and/or transfer to a four-year institution.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree: Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 8 Contemporary Media, Art and Visual Language</td>
<td>3</td>
</tr>
<tr>
<td>ART 14 Introduction to Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 30 Figure Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART 62A Illustration I</td>
<td>3</td>
</tr>
<tr>
<td>ART 63 Introduction to Graphic Design</td>
<td>4</td>
</tr>
<tr>
<td>ART 73 Typography and Layout</td>
<td>4</td>
</tr>
<tr>
<td>ART 480 Portfolio and Presentation</td>
<td>3</td>
</tr>
</tbody>
</table>

(Take ART 480 near the end of program)

Plus one course from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1 Contemporary Art: 1950 – Present</td>
<td>3</td>
</tr>
<tr>
<td>ART 5 Art History of Western World: 1400 – Contemporary</td>
<td>3</td>
</tr>
<tr>
<td>ART 6 Women Artists in History</td>
<td>3</td>
</tr>
<tr>
<td>ART 12 Fundamentals of Design in Three Dimensions</td>
<td>4</td>
</tr>
<tr>
<td>ART 16 Introduction to Painting</td>
<td>3</td>
</tr>
<tr>
<td>ART 32 Intermediate Drawing</td>
<td>4</td>
</tr>
<tr>
<td>ART 34 Intermediate Painting</td>
<td>4</td>
</tr>
<tr>
<td>ART 62B Illustration II</td>
<td>3</td>
</tr>
<tr>
<td>ART 407 History of Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 478 Illustration on the Computer</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the major: 26-27

Required General Education course:

ART 10 Fundamentals of Design in Two Dimensions 4

Requirements for the Illustration Certificate:

[TO45/04782/1013.00]

Same as the major requirements for the A.S. Degree and general education requirements above, plus:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 12, 16, and one additional course from above list</td>
<td>10-11</td>
</tr>
</tbody>
</table>

Total units for the certificate: 40-42

ART HISTORY

The Art History program prepares students for transfer to four-year colleges and universities and for careers in education, museums, research, and related fields. Students learn the major theories and artistic movements in Art and Architecture from the ancient to the modern world, and evaluate the influences that social, political, and religious institutions have in the creation of art. The program addresses the dynamic fields of both Western and Non-Western Art and Architecture, as well as the critical roles that Photography, Contemporary Art, and Graphic Design have in shaping our society. Students should consult with the intended transfer institution to determine the appropriate courses to complete at Chaffey.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Arts Degree: Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 1 Contemporary Art: 1950 - Present</td>
<td>3</td>
</tr>
<tr>
<td>ART 3 Art History of the Western World: Ancient - 1400</td>
<td>3</td>
</tr>
<tr>
<td>ART 5 Art History of the Western World: 1400 - Contemporary</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus one Studio course: ART 10, 12, 14, 18; PHOTO 7, 10 3-4

Plus one course from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 9 Art of the Pre-Columbian Americas (Non-Western)</td>
<td>3</td>
</tr>
<tr>
<td>ART 11 Asian Art History (Non-Western)</td>
<td>3</td>
</tr>
<tr>
<td>ID 13 Non-European Architecture and Design (Non-Western)</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the major: 21-24

* Courses may not be counted twice.

AUTOMOTIVE COLLISION REPAIR TECHNOLOGY

Automotive collision repair technicians restore damaged motor vehicles by straightening bent frames, removing dents, welding torn metal, and replacing defective parts. Special equipment is used to align marred frames and body sections. Pneumatic panel cutters are utilized to remove ruined body panels and new sections are welded in place. Large dents are pushed out with hydraulic jacks, hand-prying bars, hand tools, or pneumatic hammers. Plastic or solder is used to fill small dents that cannot be worked out of metals. Following restoration, surfaces are sanded and painted.

The Associate in Science Degree in Automotive Collision Repair includes all repair phases of damaged bodies and fenders, including painting. This program prepares students for employment in the industry.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree: Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACRT 400 Basic Automotive Collision Repair</td>
<td>5</td>
</tr>
<tr>
<td>ACRT 410 Advanced Automotive Collision Repair</td>
<td>5</td>
</tr>
<tr>
<td>ACRT 420 Basic Automotive Collision Refinishing</td>
<td>5</td>
</tr>
<tr>
<td>ACRT 430 Advanced Automotive Collision Refinishing</td>
<td>5</td>
</tr>
<tr>
<td>ACRT 450 Pinstriping, Flame, and Graphics</td>
<td>4</td>
</tr>
<tr>
<td>AUTOTEC 426A Basic Automotive Air Conditioning Systems</td>
<td>2</td>
</tr>
</tbody>
</table>

Total units for the major: 24

Requirements for the Automotive Collision Repair Technology Certificate:

[LO50/04771/0949.00]

Same as the major requirements for the A.S. Degree.

Total units for the certificate: 24
AUTOMOTIVE TECHNOLOGY

The Automotive Technology curriculum is designed to provide students with the skills and knowledge necessary to succeed as technicians in the automotive service industry. The Automotive Technology program at Chaffey College is certified by the National Automotive Technician Education Foundation (NATEF). Students who successfully complete the requirements for the Master Automotive Technician Associate of Science Degree or Certificate will be qualified to take the examinations required for certification as an Automotive Master Technician and will receive credit for one year of related work experience towards certification.

To obtain an Associate's Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Master Automotive Technician

Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTOTEC 10</td>
<td>Service and Repair</td>
<td>4</td>
</tr>
<tr>
<td>AUTOTEC 15</td>
<td>Automotive Electricity and Electronics</td>
<td>2</td>
</tr>
<tr>
<td>AUTOTEC 28</td>
<td>Automotive Electrical Systems</td>
<td>5</td>
</tr>
<tr>
<td>AUTOTEC 417</td>
<td>Brakes</td>
<td>4</td>
</tr>
<tr>
<td>AUTOTEC 418</td>
<td>Suspension and Steering Systems</td>
<td>4</td>
</tr>
<tr>
<td>AUTOTEC 419</td>
<td>Manual Drive Trains</td>
<td>4</td>
</tr>
<tr>
<td>AUTOTEC 422</td>
<td>Fuel, Ignition and Emission Control Systems</td>
<td>5</td>
</tr>
<tr>
<td>AUTOTEC 423</td>
<td>Engine Management Systems and Drivability</td>
<td>4</td>
</tr>
<tr>
<td>AUTOTEC 425</td>
<td>Automatic Transmissions and Transaxles</td>
<td>5</td>
</tr>
<tr>
<td>AUTOTEC 426A</td>
<td>Basic Automotive Air Conditioning Systems</td>
<td>2</td>
</tr>
<tr>
<td>AUTOTEC 426B</td>
<td>Advanced Automotive Air Conditioning and Climate Control Systems</td>
<td>4</td>
</tr>
<tr>
<td>AUTOTEC 427</td>
<td>Engine Operation and Service</td>
<td>5</td>
</tr>
</tbody>
</table>

Total units for the major 48

Requirements for the Master Automotive Technician Certificate:

[TO55/04770/0948.00]
Same as the major requirements for the A.S. Degree.

Total units for the certificate 48

Automotive Electrical Systems

The Automotive Electrical Systems Certificate prepares the student for employment as an automotive electrical systems specialist. Students with the certificate are qualified to take Automotive Service Excellence (ASE) examination for certification in Electricity/Electronics and Air Conditioning.

Requirements for the Automotive Electrical Systems Certificate:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTOTEC 10</td>
<td>Service and Repair</td>
<td>4</td>
</tr>
<tr>
<td>AUTOTEC 15</td>
<td>Automotive Electricity and Electronics</td>
<td>2</td>
</tr>
<tr>
<td>AUTOTEC 28</td>
<td>Automotive Electrical Systems</td>
<td>5</td>
</tr>
<tr>
<td>AUTOTEC 426A</td>
<td>Basic Automotive Air Conditioning Systems</td>
<td>2</td>
</tr>
<tr>
<td>AUTOTEC 426B</td>
<td>Advanced Automotive Air Conditioning and Climate Control Systems</td>
<td>4</td>
</tr>
</tbody>
</table>

Total units for the certificate 17

Engine Performance (Smog Check) Technician

The Engine Performance Certificate provides the training required by the California Smog Check program and qualifies the student to take the Smog Check Technician license examination.

Requirements for the Engine Performance (Smog Check) Technician Certificate:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTOTEC 10</td>
<td>Service and Repair</td>
<td>4</td>
</tr>
<tr>
<td>AUTOTEC 15</td>
<td>Automotive Electricity and Electronics</td>
<td>2</td>
</tr>
<tr>
<td>AUTOTEC 28</td>
<td>Automotive Electrical Systems.</td>
<td>5</td>
</tr>
<tr>
<td>AUTOTEC 422</td>
<td>Fuel, Ignition and Emission Control Systems</td>
<td>5</td>
</tr>
<tr>
<td>AUTOTEC 423</td>
<td>Engine Management Systems and Drivability</td>
<td>4</td>
</tr>
<tr>
<td>AUTOTEC 443</td>
<td>Clean Air Emission Control Control, 2</td>
<td>4</td>
</tr>
</tbody>
</table>

Total units for the certificate 24

Engine Rebuilding

The Engine Rebuilding Certificate prepares students for employment as an automotive machinist.

Requirements for the Engine Rebuilding Certificate (Non-transcripted):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTOTEC 430</td>
<td>Engine Rebuilding - Upper Engine</td>
<td>5</td>
</tr>
<tr>
<td>AUTOTEC 431</td>
<td>Engine Rebuilding - Lower Engine</td>
<td>5</td>
</tr>
</tbody>
</table>

Total units for the certificate 10

General Automotive Service Technician

This program prepares students for entry level employment as automotive service and repair technicians. Basic automotive maintenance and service operations are stressed to allow students to be immediately productive on the job. Safety and environmental protection are also stressed. Consumer protection and professional ethics are covered in depth.

Requirements for the General Automotive Service Technician Certificate:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTOTEC 450</td>
<td>General Automotive Technician A</td>
<td>12</td>
</tr>
<tr>
<td>AUTOTEC 455</td>
<td>General Automotive Technician B</td>
<td>12</td>
</tr>
</tbody>
</table>

Total units for the certificate 24
### High Performance Engines Building and Blueprinting

The High Performance Engines Building and Blueprinting Certificate signifies that the student has developed skills in advanced engine machining and modification for improved performance. Students build on the skills developed in engine rebuilding courses to learn how to build and blueprint engines that exceed the manufacturer’s original horsepower and torque ratings.

**Requirements for the High Performance Engines Certificate:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>AUTOTEC 430 Engine Rebuilding – Upper Engine</td>
</tr>
<tr>
<td>5</td>
<td>AUTOTEC 431 Engine Rebuilding – Lower Engine</td>
</tr>
<tr>
<td>5</td>
<td>AUTOTEC 435 High Performance Engine Building and Blueprinting</td>
</tr>
<tr>
<td></td>
<td>(or AUTOTEC 435A, High Performance Engine Blueprinting – Cylinder Heads, 2.5)</td>
</tr>
<tr>
<td></td>
<td>(or AUTOTEC 435B, High Performance Engine Rebuilding and Blueprinting – Cylinder Block, 2.5)</td>
</tr>
</tbody>
</table>

**Total units for the certificate** 15

### AVIATION MAINTENANCE TECHNOLOGY

This program provides the training needed to become an Aviation Maintenance Technician. Students who successfully complete the program will have the experience required by the Federal Aviation Administration for certification as an Airframe or Powerplant Mechanic. Airframe and Powerplant technicians are in demand by airlines and aviation maintenance providers. The Aviation Maintenance Technology program at Chaffey College is fully approved by the Federal Aviation Administration (FAA) to provide the 1900 hours of experience required to become an Airframe or Powerplant technician. Students may earn an Associate degree and/or separate college certificates in Airframe or Powerplant.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

**Major requirements for the Associate in Science Degree:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5</td>
<td>AMT 10 Aviation Materials, Processes, Inspections, Regulations &amp; Safety</td>
</tr>
<tr>
<td>4.5</td>
<td>AMT 11 Aeronautical Science</td>
</tr>
<tr>
<td>1.5-1.5</td>
<td>AMT 13AB General Aeronautics Laboratory</td>
</tr>
<tr>
<td>1-1-1-1</td>
<td>AMT 14ABCD General Aeronautics Laboratory</td>
</tr>
</tbody>
</table>

**Plus completion of one of the following emphases:**

**Airframe**

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5</td>
<td>AMT 30 Airframe Structures</td>
</tr>
<tr>
<td>4.5</td>
<td>AMT 31 Airframe Primary Structures</td>
</tr>
<tr>
<td>4.5</td>
<td>AMT 32 Airframe Auxiliary Systems</td>
</tr>
<tr>
<td>1.5-1.5</td>
<td>AMT 33ABC Airframe Laboratory</td>
</tr>
<tr>
<td>1-1-1-1-1</td>
<td>AMT 34ABCD Airframe Laboratory</td>
</tr>
</tbody>
</table>

**Total units for the major** 40

**Requirements for the Airframe Certificate:**

Same as the major requirements for the Airframe A.S. Degree (core + emphasis)

**Total units for the certificate** 40

### Powerplant

**[S010/04773/0950.20]**

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5</td>
<td>AMT 20 Powerplant Theory and Maintenance</td>
</tr>
<tr>
<td>4.5</td>
<td>AMT 21 Powerplant Systems and Components I</td>
</tr>
<tr>
<td>4.5</td>
<td>AMT 22 Powerplant Systems and Components II</td>
</tr>
<tr>
<td>1.5-1.5-1.5</td>
<td>AMT 23ABC Powerplant Aeronautics Laboratory</td>
</tr>
<tr>
<td>1-1-1-1-1-1</td>
<td>AMT 24ABCD Powerplant Aeronautics Laboratory</td>
</tr>
</tbody>
</table>

**Total units for the major** 40

**Requirements for the Powerplant Certificate:**

Same as the major requirements for the Powerplant A.S. Degree (core + emphasis)

**Total units for the certificate** 40

### BIOLOGY

The Biological Science major prepares students for a wide variety of professional and paraprofessional occupations in both the applied and academic fields.

Concepts and procedures of biology courses provide the knowledge and practices essential for those interested in agriculture, biology, botany, microbiology, zoology, entomology, fish and wildlife, ecology, plant breeding, animal and plant physiology, medical technology in public and private institutions and labs, bacteriological areas of industry, prerequisites for allied health programs, physical therapy, undergraduate preparation for medicine, dentistry, veterinary medicine, landscape design, graduate programs leading to teaching and research, and natural resource management including game warden, Bureau of Land Management, wildfire control, wilderness rescue, fisheries, forestry, park ranger, wildlife and land management, and natural resources.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

**Major requirements for the Associate in Science Degree:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>BIOL 52 General Botany</td>
</tr>
<tr>
<td>5</td>
<td>BIOL 55 Vertebrate Zoology</td>
</tr>
<tr>
<td>4</td>
<td>BIOL 63 Population Biology</td>
</tr>
</tbody>
</table>

**Plus seven units from the following:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>BIOL 5 Introduction to Cell and Molecular Biology</td>
</tr>
<tr>
<td>3</td>
<td>BIOL 11 Evolution, Sex, and Behavior</td>
</tr>
<tr>
<td>3</td>
<td>BIOL 23 General Microbiology</td>
</tr>
<tr>
<td>2</td>
<td>BIOL 23L General Microbiology Laboratory</td>
</tr>
<tr>
<td>4</td>
<td>BIOL 56 Invertebrate Zoology</td>
</tr>
</tbody>
</table>

**Total units for the major** 21

**Required General Education Course:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>BIOL 50 Core Biology</td>
</tr>
</tbody>
</table>

**Total units for the certificate** 40
Broadcasting and Cinema

The Broadcasting and Cinema degree program is a challenging and technology driven learning environment designed for students who want to enhance, refine, and polish their storytelling creations. Courses of study follow the traditional modes of the production process while providing students with a dynamic and innovative learning environment. Students may arrange their own program of courses in broadcasting and cinema production, including cinema studies, producing, broadcast audio, television and radio announcing, radio production, scriptwriting, post-production editing, TV production, cinema, and HDTV production.

The Broadcasting and Cinema certificate program is for students to learn and apply the processes involved in the creative, collaborative business of producing radio, motion picture, and television productions. Focus is on how to craft ideas into storytelling materials, put them together, and manage the process through completion. This certificate prepares students for various career opportunities in screenwriting, directing, producing, announcing, audio recording, cinematography, camera operation, and other vocations in the motion picture, radio, television, and broadcast industries.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRDCAST 3</td>
<td>3</td>
</tr>
<tr>
<td>BRDCAST 474</td>
<td>3</td>
</tr>
<tr>
<td>CINEMA 20</td>
<td>3</td>
</tr>
<tr>
<td>CINEMA 25</td>
<td>3</td>
</tr>
<tr>
<td>CINEMA 30</td>
<td>3</td>
</tr>
<tr>
<td>CINEMA 80</td>
<td>3</td>
</tr>
<tr>
<td>FINART 50</td>
<td>3</td>
</tr>
<tr>
<td>Plus nine additional units in Broadcasting or Cinema courses:</td>
<td></td>
</tr>
<tr>
<td>BRDCAST 55, 60, 62, 65, 70, 92A-H, 92LA-H; CINEMA 26, 96ABCD</td>
<td></td>
</tr>
</tbody>
</table>

Total units for the major 30

Requirements for the Broadcasting and Cinema Certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRDCAST 3</td>
<td>3</td>
</tr>
<tr>
<td>BRDCAST 55</td>
<td>3</td>
</tr>
<tr>
<td>BRDCAST 60</td>
<td>3</td>
</tr>
<tr>
<td>BRDCAST 65</td>
<td>2</td>
</tr>
<tr>
<td>CINEMA 20</td>
<td>3</td>
</tr>
<tr>
<td>Plus one course from the following:</td>
<td></td>
</tr>
<tr>
<td>BRDCAST 62</td>
<td>3</td>
</tr>
<tr>
<td>BRDCAST 70</td>
<td>3</td>
</tr>
<tr>
<td>BRDCAST 474</td>
<td>3</td>
</tr>
<tr>
<td>CINEMA 30</td>
<td>3</td>
</tr>
<tr>
<td>CINEMA 80</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate 17

Business Administration

The Business Administration Associate in Science Degree is designed for the student transferring to a four-year institution. Students are advised to consult with a counselor for transfer requirements to specific universities. In addition, the Associate Degree/Certificate is intended for the student interested in entering the field of business upon completion of the Certificate and/or the Associate Degree.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTG 1A</td>
<td>4</td>
</tr>
<tr>
<td>ACCTG 1B</td>
<td>4</td>
</tr>
<tr>
<td>BUS 10</td>
<td>3</td>
</tr>
<tr>
<td>BUS 28A</td>
<td>3</td>
</tr>
<tr>
<td>BUSMGT 40</td>
<td>3</td>
</tr>
<tr>
<td>ECON 2</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1A</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the major 23

Requirements for the Business Administration Certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 28B</td>
<td>3</td>
</tr>
<tr>
<td>BUS 40</td>
<td>3</td>
</tr>
<tr>
<td>BUS 45</td>
<td>3</td>
</tr>
<tr>
<td>BUS 49</td>
<td>3</td>
</tr>
<tr>
<td>BUS 61</td>
<td>3</td>
</tr>
<tr>
<td>BUS 435</td>
<td>3</td>
</tr>
<tr>
<td>BUS 55</td>
<td>3</td>
</tr>
<tr>
<td>BUS 49</td>
<td>3</td>
</tr>
<tr>
<td>BUS 80</td>
<td>3</td>
</tr>
<tr>
<td>BUS 61</td>
<td>3</td>
</tr>
<tr>
<td>BUS 435</td>
<td>3</td>
</tr>
<tr>
<td>BUS 55</td>
<td>3</td>
</tr>
<tr>
<td>CSE 1</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate 32

Business Administration/Marketing

The Marketing Certificate prepares students for marketing and management training positions that require a working knowledge of marketing, advertising, and sales.

Requirements for the Business Administration/Marketing Certificate (Non-transcripted):

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 13</td>
<td>3</td>
</tr>
<tr>
<td>BUS 40</td>
<td>3</td>
</tr>
<tr>
<td>BUS 55</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate 15
BUSINESS ADMINISTRATION / SMALL BUSINESS ENTREPRENEUR

According to a Dun and Bradstreet report of small businesses, inadequate management is a major contributor to business failures. The purpose of this curriculum is to enhance the success rate of entrepreneurs by providing managerial techniques and information that will be useful to anyone who wants to start a business or improve conditions in an established business.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>ACCTG 459 Simplified Commercial Accounting Software</td>
</tr>
<tr>
<td>1.5</td>
<td>ACCTGFS 450 Tax Preparation for Small Business</td>
</tr>
<tr>
<td>3</td>
<td>ACCTGFS 465 Financial Accounting for the Non-Accounting Major (or ACCTG 1A, Principles of Accounting I, 4)</td>
</tr>
<tr>
<td>3</td>
<td>BUS 10 Introduction to Business</td>
</tr>
<tr>
<td>3</td>
<td>BUS 40 Marketing Principles</td>
</tr>
<tr>
<td>3</td>
<td>BUS 45 Small Business Ownership and Management</td>
</tr>
<tr>
<td>3</td>
<td>BUS 402 Introduction to Import/Export</td>
</tr>
<tr>
<td>1.5</td>
<td>BUSMGT 40 Introduction to Management</td>
</tr>
<tr>
<td></td>
<td>Plus nine units from the following:</td>
</tr>
<tr>
<td></td>
<td>ACCTG 435 Payroll Accounting</td>
</tr>
<tr>
<td></td>
<td>BUS 13 Professional Selling</td>
</tr>
<tr>
<td></td>
<td>BUS 28A Business Law I</td>
</tr>
<tr>
<td></td>
<td>BUS 28B Business Law II</td>
</tr>
<tr>
<td></td>
<td>BUS 55 Advertising</td>
</tr>
<tr>
<td></td>
<td>BUS 60 Business Ethics</td>
</tr>
<tr>
<td></td>
<td>BUS 61 Introduction to Global Business</td>
</tr>
<tr>
<td></td>
<td>BUSMGT 42 Human Resource Management</td>
</tr>
<tr>
<td></td>
<td>BUSMGT 44 Introduction to Human Relations</td>
</tr>
<tr>
<td></td>
<td>BUSMGT 40 Introduction to Management</td>
</tr>
<tr>
<td></td>
<td>BUSMGT 42 Human Resource Management</td>
</tr>
<tr>
<td></td>
<td>BUSMGT 44 Introduction to Human Relations</td>
</tr>
<tr>
<td></td>
<td>BUSOT 88 Written Communication for Business</td>
</tr>
<tr>
<td></td>
<td>Total units for the major 31.5-32.5</td>
</tr>
</tbody>
</table>

Requirements for the Small Business Entrepreneur Level I Certificate (Non-transcripted):

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ACCTGFS 465 Financial Accounting for the Non-Accounting Major (or ACCTG 1A, Principles of Accounting I, 4)</td>
</tr>
<tr>
<td>3</td>
<td>BUS 10 Introduction to Business</td>
</tr>
<tr>
<td>3</td>
<td>BUS 28A Business Law I</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 40 Introduction to Management</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 42 Human Resource Management</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 44 Introduction to Human Relations</td>
</tr>
<tr>
<td>3</td>
<td>BUSOT 88 Written Communication for Business</td>
</tr>
<tr>
<td></td>
<td>Total units for the certificate 15-16</td>
</tr>
</tbody>
</table>

Requirements for the Management Level One Certificate:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ACCTGFS 465 Financial Accounting for the Non-Accounting Major (or ACCTG 1A, Principles of Accounting I, 4)</td>
</tr>
<tr>
<td>3</td>
<td>BUS 10 Introduction to Business</td>
</tr>
<tr>
<td>3</td>
<td>BUS 28A Business Law I</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 40 Introduction to Management</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 44 Introduction to Human Relations</td>
</tr>
<tr>
<td></td>
<td>Total units for the certificate 33-34</td>
</tr>
</tbody>
</table>

Requirements for the Small Business Entrepreneur Level II Certificate:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ACCTGFS 465 Financial Accounting for the Non-Accounting Major (or ACCTG 1A, Principles of Accounting I, 4)</td>
</tr>
<tr>
<td>3</td>
<td>BUS 10 Introduction to Business</td>
</tr>
<tr>
<td>3</td>
<td>BUS 28A Business Law I</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 40 Introduction to Management</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 44 Introduction to Human Relations</td>
</tr>
<tr>
<td></td>
<td>Total units for the certificate 31.5-32.5</td>
</tr>
</tbody>
</table>

BUSINESS: MANAGEMENT

Management is the process of adapting to change and visualizing today and the future as it applies to the individual organization's use of current and proposed limited or scarce resources (i.e., money, machines, manpower, and materials). This curriculum introduces basic elements of management practiced in today’s organizations.

To obtain a Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ACCTGFS 465 Financial Accounting for the Non-Accounting Major (or ACCTG 1A, Principles of Accounting I, 4)</td>
</tr>
<tr>
<td>3</td>
<td>BUS 10 Introduction to Business</td>
</tr>
<tr>
<td>3</td>
<td>BUS 28A Business Law I</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 40 Introduction to Management</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 42 Human Resource Management</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 44 Introduction to Human Relations</td>
</tr>
<tr>
<td>3</td>
<td>BUSOT 88 Written Communication for Business</td>
</tr>
<tr>
<td></td>
<td>Total units for the major 33-34</td>
</tr>
</tbody>
</table>

Requirements for the Management Level One Certificate (Non-transcripted):

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ACCTGFS 465 Financial Accounting for the Non-Accounting Major (or ACCTG 1A, Principles of Accounting I, 4)</td>
</tr>
<tr>
<td>3</td>
<td>BUS 10 Introduction to Business</td>
</tr>
<tr>
<td>3</td>
<td>BUS 28A Business Law I</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 40 Introduction to Management</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 44 Introduction to Human Relations</td>
</tr>
<tr>
<td></td>
<td>Total units for the certificate 15-16</td>
</tr>
</tbody>
</table>

Requirements for the Management Level Two Certificate:

Same as the major requirements for the A.S. Degree.

Total units for the certificate 33-34
BUSINESS: MANAGEMENT - LOGISTICS

The Logistics Management program prepares students for a career in the logistics industry. Students gain a working knowledge of transportation, warehousing, and supply chain management in addition to the skills needed to efficiently operate a warehouse.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:  

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>BUS 49 Business Decisions Using Basic Quantitative Tools</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 13 Supply Chain Management</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 14 Transportation Management</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 40 Introduction to Management</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 430 Warehouse Management and Material Handling</td>
</tr>
<tr>
<td>2</td>
<td>BUSMGT 440 Principles of Leadership</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 480 Principles of Supervision</td>
</tr>
<tr>
<td>3</td>
<td>BUSOT 88 Written Communication for Business</td>
</tr>
</tbody>
</table>

Plus one course from the following:  

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>BUS 60 Business Ethics</td>
</tr>
<tr>
<td>3</td>
<td>BUS 402 Introduction to Import/Export</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 460 Quality Management Principles</td>
</tr>
</tbody>
</table>

Total units for the major  26

Requirements for the Logistics Management Certificate:  

[LS289/16802/0510.00]  

Same as the major requirements for the A.S. Degree.

Total units for the certificate  26

BUSINESS: MANAGEMENT - RETAIL

Retail Management prepares students for employment in all aspects of retailing related to merchandise buying and management. Other career avenues are sales representatives for manufacturers, visual display, distribution, importing and exporting, and sales promotions.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:  

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>ACCTG 1A Principles of Accounting I (or BUSOT 452, Office Financial Recordkeeping, 3)</td>
</tr>
<tr>
<td>3</td>
<td>BUS 40 Marketing Principles</td>
</tr>
<tr>
<td>3</td>
<td>BUS 49 Business Decisions Using Basic Quantitative Tools</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 11 Retail Merchandising and Management</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 40 Introduction to Management</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 42 Human Resource Management</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 440 Principles of Leadership</td>
</tr>
<tr>
<td>3</td>
<td>BUSOT 88 Written Communication for Business</td>
</tr>
<tr>
<td>3</td>
<td>CIS 1 Introduction to Computer Information Systems</td>
</tr>
<tr>
<td>3</td>
<td>COMSTD 4 Fundamentals of Interpersonal Communication</td>
</tr>
</tbody>
</table>

Total units for the major  29-30

Requirements for the Retail Management Certificate:  

[LS295/04759/0506.50]  

Same as the major requirements for the A.S. Degree.

Total units for the certificate  29-30

BUSINESS: MANAGEMENT - SUPERVISION

The Supervision Program is designed for aspiring, newly appointed, or practicing first-line supervisors who serve as links between middle management and operative employees. The program integrates new theories with current practices to facilitate practical as well as theoretical application of techniques necessary to the development of today’s supervisor.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:  

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>BUSMGT 40 Introduction to Management</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 42 Human Resource Management</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 44 Introduction to Human Relations</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 440 Principles of Leadership</td>
</tr>
<tr>
<td>3</td>
<td>BUSMGT 480 Principles of Supervision</td>
</tr>
<tr>
<td>3</td>
<td>BUSOT 88 Written Communication for Business</td>
</tr>
<tr>
<td>3</td>
<td>COMSTD 4 Fundamentals of Interpersonal Communication</td>
</tr>
</tbody>
</table>

Plus two courses from the following:  

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>BUS 10 Introduction to Business</td>
</tr>
<tr>
<td>3</td>
<td>BUS 28A Business Law I</td>
</tr>
<tr>
<td>3</td>
<td>BUS 28B Business Law II</td>
</tr>
<tr>
<td>3</td>
<td>BUS 60 Business Ethics</td>
</tr>
<tr>
<td>3</td>
<td>BUS 61 Introduction to Global Business</td>
</tr>
<tr>
<td>1.5</td>
<td>CIS 68 Using the Internet</td>
</tr>
</tbody>
</table>

Total units for the major  27.5-29

Requirements for the Supervision Level I Certificate (Non-transcripted):  

[LS410/14401/0506.30]  

Total units for the certificate  14

Requirements for the Supervision Level II Certificate:  

[LS410/14401/0506.30]  

Same as the major requirements for the A.S. Degree.

Total units for the certificate  27.5-29
BUSINESS: PARALEGAL STUDIES

The Paralegal Studies certificate program is intended to prepare students for employment as paralegals in various legal sectors. The American Bar Association (ABA) By-Laws, Section 21.12 uses the terms "paralegal" and "legal assistant" interchangeably referring to persons who, although not members of the legal profession, are qualified through education, training, or work experience, and are employed or retained by a lawyer, law office, governmental agency, or other entity in a capacity or function which involves the performance under the direction and supervision of an attorney, of specifically delegated substantive legal work.

The Paralegal Studies certificate program emphasizes practical application and the development of up-to-date paralegal related job skills in addition to teaching legal theory. The program is designed to enhance the ability of students to reason, understand and apply correct principles of law by teaching analytical and critical thinking skills. Graduates of the program will possess skills to enter the paralegal profession. It also allows those already in the paralegal line of work to improve their understanding of the paralegal profession.

California State statute requires all paralegals to be certified by an accredited educational institution. Chaffey College’s Paralegal Studies certificate program meets and exceeds such mandates because Chaffey College is approved by the California Department of Education and the Western Association for Schools and Colleges, and the certificate is awarded to students who have successfully completed 27 semester units in law-related courses. Chaffey College’s Paralegal Studies certificate program also exceeds the American Bar Association’s guideline for paralegal educational requirement.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Requirements for the Paralegal Studies Certificate: 

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 28A</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 28B</td>
<td>Business Law II</td>
<td>2</td>
</tr>
<tr>
<td>BUS 410</td>
<td>International Business Law</td>
<td>2</td>
</tr>
<tr>
<td>BUSPL 400</td>
<td>Introduction to Paralegal Studies</td>
<td>3</td>
</tr>
<tr>
<td>BUSPL 401</td>
<td>Legal Research and Writing</td>
<td>3</td>
</tr>
<tr>
<td>BUSPL 402</td>
<td>Civil Litigation</td>
<td>2</td>
</tr>
<tr>
<td>BUSPL 403</td>
<td>Evidence</td>
<td>3</td>
</tr>
<tr>
<td>BUSPL 404</td>
<td>Law Office Operations</td>
<td>3</td>
</tr>
<tr>
<td>Total units for the major</td>
<td>27</td>
<td></td>
</tr>
</tbody>
</table>

BUSINESS AND OFFICE TECHNOLOGIES

The Business and Office Technologies program (1) prepares students for employment as office support personnel, administrative assistants, and office managers; (2) develops computer competencies for the workplace, educational advancement, and personal use; and (3) provides a foundation for developing workplace and lifelong learning, skills, and knowledge. The program offers Associate in Science Degrees, Program Certificates, and Proficiency Certificates.

Data Entry

The Data Entry Certificate prepares students for positions using microcomputers. Students develop skills and knowledge in alphanumeric keyboarding and computer competencies.

Requirements for the Data Entry Certificate (Non-transcripted):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 29</td>
<td>Fundamentals of Computer Keyboarding</td>
<td>1.5</td>
</tr>
<tr>
<td>BUS 30</td>
<td>Fundamentals of Microsoft Word</td>
<td>1.5</td>
</tr>
<tr>
<td>BUS 50</td>
<td>Filing and Records Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 400</td>
<td>Job Search and Interviewing Techniques</td>
<td>1.5</td>
</tr>
<tr>
<td>BUS 452</td>
<td>Office Financial Recordkeeping</td>
<td>3</td>
</tr>
<tr>
<td>BUS 455</td>
<td>Fundamentals of English for Business</td>
<td>3</td>
</tr>
<tr>
<td>Total units for the certificate</td>
<td>13.5-15</td>
<td></td>
</tr>
</tbody>
</table>

Recommended:

BUSOT 496ABCD Internships in Business and Office Technologies 1-4

Plus a minimum keyboarding speed of 40 wpm for five minutes verified by the Business and Office Technologies Department Proficiency Certificate.

General Office Assistant

The General Office Assistant Certificate offers professional preparation for entry-level business and office positions. Emphasis on developing the essential skills for today’s workplace: computer keyboarding and word processing, records management, language skills, and interpersonal skills. General Office Assistants may be employed as general clerks, receptionists, word processors, and in other entry-level positions.

Requirements for the General Office Assistant Certificate:

Level One (Non-transcripted)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 28A</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 410</td>
<td>International Business Law</td>
<td>2</td>
</tr>
<tr>
<td>BUSPL 400</td>
<td>Introduction to Paralegal Studies</td>
<td>3</td>
</tr>
<tr>
<td>BUSPL 401</td>
<td>Legal Research and Writing</td>
<td>3</td>
</tr>
<tr>
<td>BUSPL 402</td>
<td>Civil Litigation</td>
<td>2</td>
</tr>
<tr>
<td>BUSPL 403</td>
<td>Evidence</td>
<td>3</td>
</tr>
<tr>
<td>BUSPL 404</td>
<td>Law Office Operations</td>
<td>3</td>
</tr>
<tr>
<td>Total units for the certificate</td>
<td>13.5-15</td>
<td></td>
</tr>
</tbody>
</table>

Recommended:

BUSOT 496ABCD Internships in Business and Office Technologies 1-4

Level Two (Non-transcripted)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 410</td>
<td>International Business Law</td>
<td>2</td>
</tr>
<tr>
<td>BUSPL 400</td>
<td>Introduction to Paralegal Studies</td>
<td>3</td>
</tr>
<tr>
<td>BUSPL 401</td>
<td>Legal Research and Writing</td>
<td>3</td>
</tr>
<tr>
<td>BUSPL 402</td>
<td>Civil Litigation</td>
<td>2</td>
</tr>
<tr>
<td>BUSPL 403</td>
<td>Evidence</td>
<td>3</td>
</tr>
<tr>
<td>BUSPL 404</td>
<td>Law Office Operations</td>
<td>3</td>
</tr>
<tr>
<td>Total units for the certificate</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Recommended:

BUSOT 496ABCD Internships in Business and Office Technologies 1-4

Plus a minimum keyboarding speed of 35 wpm for 5 minutes verified by the Business and Office Technologies Department Proficiency Certificate.
Medical Insurance Billing

The Medical Insurance Billing Certificate offers a study of the medical front office, including office procedures, medical law and ethics, scheduling appointments and surgeries, billing and collection, records management, and physical coding for insurance billing.

Requirements for the Medical Insurance Billing Certificate:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 30</td>
<td>Beginning Medical Terminology 3</td>
</tr>
<tr>
<td>BIOL 424</td>
<td>Anatomy and Physiology 3</td>
</tr>
<tr>
<td>BUSOT 40B</td>
<td>Computer Keyboarding: Speed and Accuracy Development 3</td>
</tr>
<tr>
<td>BUSOT 60A</td>
<td>Microsoft Office Word - Specialist 3</td>
</tr>
<tr>
<td>BUSOT 475</td>
<td>Medical Office Procedures 3</td>
</tr>
<tr>
<td>BUSOTMD 410</td>
<td>Basic CPT4 Coding 3</td>
</tr>
<tr>
<td>BUSOTMD 420</td>
<td>Basic ICD-9 CM Coding 3</td>
</tr>
<tr>
<td>BUSOTMD 430</td>
<td>Intermediate Level ICD-9 CM/CPT4 Coding 3</td>
</tr>
<tr>
<td>BUSOTMD 440</td>
<td>Medical Billing, Reimbursement and Compliance 3</td>
</tr>
<tr>
<td>BUSOT 63</td>
<td>Microsoft Office Excel – Specialist 1.5</td>
</tr>
<tr>
<td>BUSOT 452</td>
<td>Office Financial Recordkeeping 3</td>
</tr>
<tr>
<td>BUSOT 50</td>
<td>Filing and Records Management 3</td>
</tr>
<tr>
<td>BUSOT 61</td>
<td>Microsoft Office PowerPoint 1.5</td>
</tr>
<tr>
<td>BUSOT 62</td>
<td>Microsoft Office Outlook 1.5</td>
</tr>
<tr>
<td>BUSOT 63A</td>
<td>Microsoft Office Excel - Specialist 1.5 (or BUSOT 63, Microsoft Office Excel – Comprehensive, 3)</td>
</tr>
<tr>
<td>BUSOT 410A</td>
<td>Microsoft Office Publisher – Specialist 1.5</td>
</tr>
<tr>
<td>BUSOT 410B</td>
<td>Microsoft Office Publisher – Expert 1.5</td>
</tr>
<tr>
<td>BUSOT 64B</td>
<td>Microsoft Office Access – Specialist 1.5</td>
</tr>
<tr>
<td>BUSOT 40</td>
<td>Job Search and Interviewing Techniques 1.5</td>
</tr>
<tr>
<td>BUSOT 64A</td>
<td>Microsoft Office Access - Specialist 1.5</td>
</tr>
<tr>
<td>BUSOT 400</td>
<td>Job Search and Interviewing Techniques 1.5</td>
</tr>
</tbody>
</table>

Plus three units from the following:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSOT 60A</td>
<td>Microsoft Office Word – Specialist 3</td>
</tr>
<tr>
<td>BUSOT 61</td>
<td>Microsoft Office PowerPoint 1.5</td>
</tr>
<tr>
<td>BUSOT 64A</td>
<td>Microsoft Office Access – Specialist 1.5</td>
</tr>
<tr>
<td>BUSOT 444</td>
<td>Concepts and Techniques of Data Entry 2</td>
</tr>
</tbody>
</table>

Total units for the certificate 30

Plus a minimum keyboarding speed of 35 wpm for five minutes verified by the Business and Office Technologies Department Proficiency Certificate.

Medical Transcribing
(See Transcriptionist)

Microsoft Office Excel Applications

The Microsoft Office Excel Applications Certificate offers in-depth competency in utilizing current business spreadsheet software to organize, manipulate, and graph numeric data. This program will prepare students for positions requiring expertise in the use of Microsoft Excel.

Requirements for the Microsoft Office Excel Applications Certificate:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSOT 40A</td>
<td>Beginning Computer Keyboarding 3</td>
</tr>
<tr>
<td>BUSOT 63</td>
<td>Microsoft Office Excel – Comprehensive 3</td>
</tr>
<tr>
<td>BUSOT 452</td>
<td>Office Financial Recordkeeping 3</td>
</tr>
</tbody>
</table>

Plus three units from the following:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 49</td>
<td>Business Decisions Using Basic Quantitative Tools 3</td>
</tr>
<tr>
<td>BUSOT 60A</td>
<td>Microsoft Office Word – Specialist 3</td>
</tr>
<tr>
<td>BUSOT 61</td>
<td>Microsoft Office PowerPoint 1.5</td>
</tr>
<tr>
<td>BUSOT 64A</td>
<td>Microsoft Office Access – Specialist 1.5</td>
</tr>
<tr>
<td>BUSOT 444</td>
<td>Concepts and Techniques of Data Entry 2</td>
</tr>
</tbody>
</table>

Total units for the certificate 10.5-13

Microsoft Office Specialist

The Microsoft Office Specialist certificate program is designed to provide students with core-level competency in the Microsoft Office Suite, the most commonly found business software applications program in the current electronic workplace. Students with this certificate possess competencies in the basic functions and features of word processing, spreadsheet applications, database management, presentations, and desktop publishing programs within the Microsoft Office Suite.

Requirements for the Microsoft Office Specialist Certificate:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSOT 40B</td>
<td>Computer Keyboarding: Speed and Accuracy Development 3</td>
</tr>
<tr>
<td>BUSOT 60A</td>
<td>Microsoft Office Word – Specialist 3</td>
</tr>
<tr>
<td>BUSOT 61</td>
<td>Microsoft Office PowerPoint 1.5</td>
</tr>
<tr>
<td>BUSOT 63A</td>
<td>Microsoft Office Excel - Specialist 1.5 (or BUSOT 63, Microsoft Office Excel – Comprehensive, 3)</td>
</tr>
<tr>
<td>BUSOT 410A</td>
<td>Microsoft Office Publisher – Specialist 1.5</td>
</tr>
</tbody>
</table>

Total units for the certificate 13.5-15

Plus a minimum keyboarding speed of 35 wpm for five minutes verified by the Business and Office Technologies Department Proficiency Certificate.

Microsoft Office Expert

The Microsoft Office Expert certificate program is designed to provide students with expert-level competency in the Microsoft Office Suite, the most commonly found business software applications program in the current electronic workplace. Students with this certificate possess expert competencies in the advanced functions and features of word processing, spreadsheet applications, database management, presentations, and desktop publishing programs within the Microsoft Office Suite.

Requirements for the Microsoft Office Expert Certificate:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSOT 60B</td>
<td>Microsoft Office Word – Expert 3</td>
</tr>
<tr>
<td>BUSOT 62</td>
<td>Microsoft Office Outlook 1.5</td>
</tr>
<tr>
<td>BUSOT 63B</td>
<td>Microsoft Office Excel – Expert 1.5 (or BUSOT 63, Microsoft Office Excel – Comprehensive, 3)</td>
</tr>
<tr>
<td>BUSOT 64B</td>
<td>Microsoft Office Access – Expert 1.5</td>
</tr>
<tr>
<td>BUSOT 410B</td>
<td>Microsoft Office Publisher – Expert 1.5</td>
</tr>
</tbody>
</table>

Total units for the certificate 22.5

Recommended:

BUSOT 496ABCD Internships in Business and Office Technologies 1-4

Plus a minimum keyboarding speed of 40 wpm for five minutes verified by the Business and Office Technologies Department Proficiency Certificate.
Microsoft Word Specialist

The Microsoft Word Specialist Certificate offers in-depth competency in utilizing current business software. This program will prepare students for positions requiring expertise in the use of Microsoft Word.

Requirements for the Microsoft Word Specialist Certificate:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSOT 40B</td>
<td>Computer Keyboarding:</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 60A</td>
<td>Microsoft Office Word - Specialist</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 60B</td>
<td>Microsoft Office Word - Expert</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 455</td>
<td>Fundamentals of English for Business</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate 12

Recommended:  
BUSOT 496ABCD Internships in Business and Office Technologies 1-4

Office Management

The Office Management Program prepares students for business office careers, including those in middle/administrative management. Students develop abilities that create opportunities for promotions, job transitions, and positions of greater responsibility in the workplace. Emphasis on supervision, leadership, and interpersonal skills.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSOT 40B</td>
<td>Computer Keyboarding:</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 50</td>
<td>Filing and Records Management</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 60B</td>
<td>Microsoft Office Word - Expert</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 63</td>
<td>Microsoft Office Excel – Comprehensive</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 88</td>
<td>Written Communication for Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 400</td>
<td>Job Search and Interviewing Techniques</td>
<td>1.5</td>
</tr>
<tr>
<td>BUSOT 452</td>
<td>Office Financial Recordkeeping</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 455</td>
<td>Fundamentals of English for Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 460</td>
<td>Proofreading: Text-Editing Skills</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 470</td>
<td>Electronic Office Procedures</td>
<td>3</td>
</tr>
</tbody>
</table>

Requirements for the Office Management Certificate:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSOT 40B</td>
<td>Computer Keyboarding:</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 50</td>
<td>Filing and Records Management</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 60B</td>
<td>Microsoft Office Word - Expert</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 63</td>
<td>Microsoft Office Excel – Comprehensive</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 88</td>
<td>Written Communication for Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 400</td>
<td>Job Search and Interviewing Techniques</td>
<td>1.5</td>
</tr>
<tr>
<td>BUSOT 452</td>
<td>Office Financial Recordkeeping</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 455</td>
<td>Fundamentals of English for Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 460</td>
<td>Proofreading: Text-Editing Skills</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 470</td>
<td>Electronic Office Procedures</td>
<td>3</td>
</tr>
</tbody>
</table>

Requirements for the Microsoft Word Specialist Certificate:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSOT 40B</td>
<td>Computer Keyboarding:</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 60A</td>
<td>Microsoft Office Access – Specialist</td>
<td>1.5</td>
</tr>
<tr>
<td>BUSOT 60B</td>
<td>Microsoft Office Access – Expert</td>
<td>1.5</td>
</tr>
<tr>
<td>BUSOT 455</td>
<td>Fundamentals of English for Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 460</td>
<td>Proofreading: Text-Editing Skills</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 465A</td>
<td>Beginning Speedwriting and Notetaking</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 496ABCD Internships in Business and Office Technologies</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Total units for the major 33-35.5

*Courses may not be counted twice.
Executive - Bilingual

**BUSOT 470** may not be counted twice

Medical

Total units for the major 39-46.5

Requirements for the Professional Administrative Assistant Certificate:

Same as the major requirements for the A.S. Degree.

Total units for the certificate 39-46.5

Transcriptionist

The Transcriptionist Certificate provides computer competencies, language skills, interpersonal skills and knowledge to obtain positions using word processing systems, equipment, and current business software programs. Emphasizes developing workplace competencies in transcribing in general or medical offices.

Requirements for the General Transcriptionist Certificate:

Total units for the certificate 21

Specialization for the Medical Transcriptionist Certificate:

Total units for the certificate 27

*Students must take BUSOT 462B with the specific emphasis (general or medical) for each desired certificate, and must complete specialty courses before enrolling in BUSOT 462B.

Chemistry

Chemistry is the science of matter, its characterization, composition, and its transformations. It is a vital, growing enterprise as opposed to a mere accumulation of knowledge. An understanding of chemistry is basic to the physical and biological sciences and fundamental in a variety of occupations. Specialized fields of chemistry are inorganic, organic, physical, nuclear, biochemistry, and chemical engineering. Chaffey College offers the first two years of the baccalaureate degree chemistry curriculum.

To obtain an Associate's Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

Total units for the major 33

Required General Education courses:

Note: Students should consult the transfer institution regarding the transferability of the Organic Chemistry sequence (CHEM 75A, 75B) as lower division.
PROGRAMS OF STUDY

CHILD DEVELOPMENT AND EDUCATION

The Child Development and Education program provides students with competencies needed for employment as teacher assistants in public child development classrooms, and as teachers or directors in government-funded or private child care centers. Courses are designed to acquaint students with basic issues in child development, curriculum design, parenting, and the impact of family, community, and schools on the growing child. Courses are useful for parents or any adults interested in children’s issues.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree: 35 units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDE 1</td>
<td>Introduction to Principles and Practices in Early Childhood</td>
<td>3</td>
</tr>
<tr>
<td>CDE 2</td>
<td>Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>CDE 3</td>
<td>Child Study and Observation</td>
<td>3</td>
</tr>
<tr>
<td>CDE 4</td>
<td>Child, Family and Community</td>
<td>3</td>
</tr>
<tr>
<td>CDE 5</td>
<td>Health and Safety of the Young Child</td>
<td>3</td>
</tr>
<tr>
<td>CDE 6</td>
<td>The Child in a Multicultural Society</td>
<td>3</td>
</tr>
<tr>
<td>CDE 23</td>
<td>Introduction to Children with Special Needs</td>
<td>3</td>
</tr>
<tr>
<td>CDE 24</td>
<td>Curriculum Theory I: Principles and Practices</td>
<td>2</td>
</tr>
<tr>
<td>CDE 24W</td>
<td>Supervised Occupational Work Experience Practicum</td>
<td>1</td>
</tr>
<tr>
<td>CDE 25</td>
<td>Curriculum Theory II: Advanced Principles and Practices</td>
<td>2</td>
</tr>
<tr>
<td>CDE 25W</td>
<td>Supervised Occupational Work Experience Practicum</td>
<td>1</td>
</tr>
<tr>
<td>CDE 26</td>
<td>Community Internship Seminar: Child Development and Education</td>
<td>2</td>
</tr>
<tr>
<td>CDE 415</td>
<td>Dynamics of Play</td>
<td>3</td>
</tr>
<tr>
<td>CDE 416</td>
<td>Brain Research and Implications for Classroom Teaching</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the major: 35

Recommended Courses: ENGL 450, MATH 410

Child Development Permits (Assistant, Associate, Teacher, Master Teacher, Site Supervisor, and Program Director) are issued by the State Commission on Teacher Credentialing. Please consult with the department for the requirements.

COMMUNICATION STUDIES

An interdisciplinary area of inquiry with a foundation in traditional rhetoric and contemporary social-scientific theories of human communication. The program is suited to the needs of both two-year students and students who wish to transfer with a major or minor in Communication Studies or related fields. The curriculum is intended for students who wish to develop a fundamental understanding and knowledge of the functions of communication in their daily life and in the fabric of society.

A series of core courses is designed to provide students with the background needed to explore any of several fields in depth. Currently, these areas are public communication, leadership and group communication, and interpersonal/organizational communication.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Arts Degree: 31 units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMSTD 2</td>
<td>Fundamentals of Effective Speaking</td>
<td>3</td>
</tr>
<tr>
<td>COMSTD 4</td>
<td>Fundamentals of Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMSTD 6</td>
<td>Fundamentals of Small Group Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMSTD 72</td>
<td>Logic and Argumentation</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus a minimum of 11.5 units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTG 1A</td>
<td>Principles of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>CIS 20</td>
<td>Computer Security Basics</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 431</td>
<td>Project Management for Information Technology</td>
<td>3</td>
</tr>
<tr>
<td>CIS 435</td>
<td>Fundamentals of Microsoft Visio</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 470</td>
<td>Electronic Commerce</td>
<td>1.5</td>
</tr>
<tr>
<td>CISCO 1</td>
<td>Cisco Internetworking I</td>
<td>4</td>
</tr>
<tr>
<td>CISCO 2</td>
<td>Cisco Internetworking II</td>
<td>4</td>
</tr>
<tr>
<td>CISHDSP 401</td>
<td>Microcomputer Hardware</td>
<td>3</td>
</tr>
<tr>
<td>CISNWK 11</td>
<td>Microsoft Network Server</td>
<td>3</td>
</tr>
<tr>
<td>CISNWK 440</td>
<td>Introduction to Network Security Administration</td>
<td>3</td>
</tr>
<tr>
<td>CISPROG 403</td>
<td>Advanced Visual Basic Programming</td>
<td>3</td>
</tr>
<tr>
<td>CISNWK 416</td>
<td>Microsoft Access VBA Programming</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the major: 31

COMPUTER INFORMATION SYSTEMS

The Computer Information Systems program is designed to (1) prepare students for the employment market at the entry level in computer operations, computer programming, and computer systems design/analysis, (2) provide a foundation for those students who plan to complete a four-year program in computer information systems, and (3) provide computer literacy for non-computer information systems students.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree: 31 units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 6</td>
<td>Introduction to Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 4</td>
<td>Fundamentals of Microsoft Windows</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 15</td>
<td>Microsoft Access Database Design and Development</td>
<td>3</td>
</tr>
<tr>
<td>CIS 50</td>
<td>Introduction to Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CIS 68</td>
<td>Using the Internet</td>
<td>1.5</td>
</tr>
<tr>
<td>CISPROG 1</td>
<td>Introduction to Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>CISPROG 3</td>
<td>Fundamentals of Visual Basic Programming</td>
<td>3</td>
</tr>
<tr>
<td>CISWEB 70</td>
<td>Creating Web Pages with HTML</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Plus three courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMSTD 12</td>
<td>Mass Communication and Society</td>
<td>3</td>
</tr>
<tr>
<td>COMSTD 14</td>
<td>Oral Interpretation of Literature</td>
<td>3</td>
</tr>
<tr>
<td>COMSTD 74</td>
<td>Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMSTD 76</td>
<td>Gender and Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the major: 21

Required General Education courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMSTD 8</td>
<td>Fundamentals of Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1A</td>
<td>Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

Recommended Courses: ANTHRO 3, BRDCAST 3, SOC 10, 11, 14; THEATRE 1

CATALOG 2009-2010
COMPUTER INFORMATION SYSTEMS CERTIFICATE PROGRAMS

Cisco CCNA Examination Preparation, Levels I-IV

The Cisco CCNA Examination Preparation Certificates, Levels I-IV, confirm that the student possesses the industry-recognized knowledge and skills required for completion of each level in a four-course sequence. In completing the sequence, the student is qualified to take the Cisco CCNA examination, which is administered by an outside agency.

Requirements for the Cisco CCNA Examination Preparation Level I Certificate (Non-transcripted):

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1</td>
<td>3</td>
</tr>
<tr>
<td>CISCO 1</td>
<td>4</td>
</tr>
</tbody>
</table>

Total units for the certificate 7

Requirements for the Cisco CCNA Examination Preparation Level II Certificate (Non-transcripted):

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level I Certificate, or CISCO 1 or equivalent, plus: CISCO 2</td>
<td>0-7</td>
</tr>
<tr>
<td>CISCO 2</td>
<td>4</td>
</tr>
</tbody>
</table>

Total units for the certificate 4-11

Requirements for the Cisco CCNA Examination Preparation Level III Certificate (Non-transcripted):

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level II Certificate, or CISCO 2 or equivalent, plus: CISCO 3</td>
<td>0-11</td>
</tr>
<tr>
<td>CISCO 3</td>
<td>4</td>
</tr>
</tbody>
</table>

Total units for the certificate 4-15

Requirements for the Cisco CCNA Examination Preparation Level IV Certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level III Certificate, or CISCO 3 or equivalent, plus: CISCO 4</td>
<td>0-15</td>
</tr>
<tr>
<td>CISCO 4</td>
<td>4</td>
</tr>
</tbody>
</table>

Total units for the certificate 4-19

Cisco CCNP Examination Preparation, Levels V-VIII

Cisco professionals design, build, and maintain computer networks that use Cisco software and hardware to form the networking and Internet foundations for business and government agencies worldwide. The Cisco Certified Network Professional (CCNP) Examination Preparation Certificates Levels V-VIII confirms that the student possesses the industry-recognized knowledge and skills required for each of the CCNP components. Upon successful completion of all four levels (taken in any sequence), the student is qualified to take the Cisco CCNP examination which is administered by an outside agency.

Requirements for the Cisco CCNP Examination Preparation Level V Certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISCO 4</td>
<td>0-19</td>
</tr>
<tr>
<td>CISCO 415</td>
<td>4</td>
</tr>
</tbody>
</table>

Total units for the certificate 4-23

Requirements for the Cisco CCNP Examination Preparation Level VI Certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISCO 4</td>
<td>0-23</td>
</tr>
<tr>
<td>CISCO 416</td>
<td>4</td>
</tr>
</tbody>
</table>

Total units for the certificate 4-27

Requirements for the Cisco CCNP Examination Preparation Level VII Certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISCO 4</td>
<td>0-27</td>
</tr>
<tr>
<td>CISCO 417</td>
<td>4</td>
</tr>
</tbody>
</table>

Total units for the certificate 4-31

Requirements for the Cisco CCNP Examination Preparation Level VIII Certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISCO 4</td>
<td>0-31</td>
</tr>
<tr>
<td>CISCO 418</td>
<td>4</td>
</tr>
</tbody>
</table>

Total units for the certificate 4-35

Computer Foundations

The Computer Foundations certificate provides students with the basic hardware, software, operating system, Internet, and networking skills demanded for entry level positions in virtually any organization.

Requirements for the Computer Foundations Certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1</td>
<td>3</td>
</tr>
<tr>
<td>CIS 4</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 68</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 420</td>
<td>1.5</td>
</tr>
<tr>
<td>CISHDSP 420</td>
<td>1.5</td>
</tr>
<tr>
<td>CISNTWK 420</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Total units for the certificate 10.5-13.5

Computer Game Development

The Computer Game Development Certificate sets the foundation for a career in game development with the introduction of the programming and graphic elements of the field.

Requirements for the Computer Game Development Certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1</td>
<td>3</td>
</tr>
<tr>
<td>CISGAME 401</td>
<td>1.5</td>
</tr>
<tr>
<td>CISGAME 402</td>
<td>3</td>
</tr>
<tr>
<td>CISGAME 403</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate 10.5
Computer Information Systems

Requirements for the Computer Information Systems Certificate:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1</td>
<td>Introduction to Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 4</td>
<td>Fundamentals of Microsoft Windows</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 15</td>
<td>Microsoft Access Database Design and Development</td>
<td>3</td>
</tr>
<tr>
<td>CIS 50</td>
<td>Introduction to Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CIS 68</td>
<td>Using the Internet</td>
<td>1.5</td>
</tr>
<tr>
<td>CISPROM 1</td>
<td>Introduction to Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>CISPROM 3</td>
<td>Fundamentals of Visual Basic Programming</td>
<td>3</td>
</tr>
<tr>
<td>CISWEB 70</td>
<td>Creating Web Pages with HTML</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Plus a minimum of 11.5 units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTG 1A</td>
<td>Principles of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>CIS 420</td>
<td>Computer Security Basics</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 431</td>
<td>Project Management for Information Technology</td>
<td>3</td>
</tr>
<tr>
<td>CIS 435</td>
<td>Fundamentals of Microsoft Visio</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 470</td>
<td>Electronic Commerce</td>
<td>1.5</td>
</tr>
<tr>
<td>CISO 1</td>
<td>Cisco Internetworking I</td>
<td>4</td>
</tr>
<tr>
<td>CISO 2</td>
<td>Cisco Internetworking II</td>
<td>4</td>
</tr>
<tr>
<td>CISHDSP 401</td>
<td>Microcomputer Hardware</td>
<td>3</td>
</tr>
<tr>
<td>CI5NW 11</td>
<td>Microsoft Network Server</td>
<td>3</td>
</tr>
<tr>
<td>CISHDSP 440</td>
<td>Introduction to Network Security Administration</td>
<td>3</td>
</tr>
<tr>
<td>CISPROM 403</td>
<td>Advanced Visual Basic Programming</td>
<td>3</td>
</tr>
<tr>
<td>CISPROM 416</td>
<td>Microsoft Access VBA Programming</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate: 31

Computer Support Technician (A+)

The Computer Support Technician Certificate prepares the student for positions in industry supporting microcomputer users in hardware and software areas as well as to prepare for the Comp TIA A+ examination. The examination is administered by an outside agency.

Requirements for the Computer Support Technician Certificate (A+ Certification Preparation) (Non-transcripted):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1</td>
<td>Introduction to Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 4</td>
<td>Fundamentals of Microsoft Windows</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 50</td>
<td>Introduction to Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CIS 68</td>
<td>Using the Internet</td>
<td>1.5</td>
</tr>
<tr>
<td>CISHDSP 401</td>
<td>Microcomputer Hardware</td>
<td>3</td>
</tr>
<tr>
<td>CISHDSP 405</td>
<td>A+ Certification Preparation</td>
<td>1.5</td>
</tr>
<tr>
<td>CISHDSP 410</td>
<td>Desktop Support Certification Preparation</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate: 16.5

Database Specialist Level I

The Database Specialist Level I certificate prepares students for entry level positions involving the design and development of database systems in an organization.

Requirements for the Database Specialist Level I Certificate: (Non-transcripted)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1</td>
<td>Introduction to Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 15</td>
<td>Microsoft Access Database Design and Development</td>
<td>3</td>
</tr>
<tr>
<td>CIS 68</td>
<td>Using the Internet</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 420</td>
<td>Computer Security Basics</td>
<td>1.5</td>
</tr>
<tr>
<td>CISWEB 70</td>
<td>Creating Web Pages with HTML</td>
<td>1.5</td>
</tr>
<tr>
<td>CISWEB 436</td>
<td>Web Development: PHP/MySQL</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate: 13.5

Dreamweaver Web Developer

The Dreamweaver Web Developer Certificate prepares students for positions using Macromedia Dreamweaver to develop Internet and Intranet Web sites.

Requirements for the Dreamweaver Web Developer Certificate: (Non-transcripted)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1</td>
<td>Introduction to Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 4</td>
<td>Fundamentals of Microsoft Windows</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 68</td>
<td>Using the Internet</td>
<td>1.5</td>
</tr>
<tr>
<td>CISWEB 70</td>
<td>Creating Web Pages with HTML</td>
<td>1.5</td>
</tr>
<tr>
<td>CISWEB 423</td>
<td>Web Development: Dreamweaver</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate: 12

Electronic Commerce Generalist

The Electronic Commerce Generalist certificate prepares students to start or manage a business on the Internet, or to be employed by an Internet-based business.

Requirements for the Electronic Commerce Generalist Certificate: (Non-transcripted)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTG 459</td>
<td>Simplified Commercial Accounting Software</td>
<td>1.5</td>
</tr>
<tr>
<td>BUS 40</td>
<td>Marketing Principles</td>
<td>3</td>
</tr>
<tr>
<td>BUS 45</td>
<td>Small Business Ownership and Management</td>
<td>3</td>
</tr>
<tr>
<td>CIS 1</td>
<td>Introduction to Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 68</td>
<td>Using the Internet</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 420</td>
<td>Computer Security Basics</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 470</td>
<td>Electronic Commerce</td>
<td>1.5</td>
</tr>
<tr>
<td>CISWEB 70</td>
<td>Creating Web Pages with HTML</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Total units for the certificate: 16.5

Flash Game Developer

The Flash Game Developer certificate prepares students for a career in developing computer games with the Flash programming language.

Requirements for the Flash Game Developer Certificate: (Non-transcripted)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 68</td>
<td>Using the Internet</td>
<td>1.5</td>
</tr>
<tr>
<td>CISGAME 401</td>
<td>Fundamentals of Game Development</td>
<td>1.5</td>
</tr>
<tr>
<td>CISGAME 420</td>
<td>Game Development Using Flash</td>
<td>3</td>
</tr>
<tr>
<td>CISWEB 70</td>
<td>Creating Web Pages with HTML</td>
<td>1.5</td>
</tr>
<tr>
<td>CISWEB 420A</td>
<td>Web Development: Flash</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate: 13.5
Flash Web Developer

The Flash Web Developer certificate prepares students for positions using Macromedia Flash to develop Internet and Intranet Web sites.

Requirements for the Flash Web Developer Certificate: Units
[Non-transcripted]
- CIS 1 Introduction to Computer Information Systems 3
- CIS 68 Using the Internet 1.5
- CISIWEB 70 Creating Web Pages with HTML 1.5
- CISIWEB 410 WebMaster Tools 1.5
- CISIWEB 420A Web Development: Flash 3
- CISIWEB 420B Web Development: Flash ActionScript Programming 3
- CISIWEB 423 Web Development: Dreamweaver 3

Total units for the certificate: 16.5

Microsoft Access Programmer

The Microsoft Access Programmer designs, develops and maintains database systems that can be used by any size organization or Internet-based business.

Requirements for the Microsoft Access Programmer Certificate: Units
[Non-transcripted]
- CIS 1 Introduction to Computer Information Systems 3
- CIS 15 Microsoft Access Database Design and Development 3
- CIS 68 Using the Internet 1.5
- CIS 420 Computer Security Basics 1.5
- CISPROG 416 Microsoft Access VBA Programming 3

Total units for the certificate: 13.5

Internet Programmer Level I

The Internet Programmer Level I certificate prepares students for positions developing Internet sites requiring client and server-side programming.

Requirements for the Internet Programmer Level I Certificate: Units
[Non-transcripted]
- CIS 1 Introduction to Computer Information Systems 3
- CIS 414 JavaScript Programming 3
- CISIWEB 410 WebMaster Tools 1.5
- CISIWEB 430A Web Development: CGI/Perl Programming I 1.5
- CISIWEB 432A Web Development: Active Server Pages I 1.5
- CISIWEB 436 Web Development: PHP/MySQL 3.0

Total units for the certificate: 16.5

Microsoft Certified Desktop Support Technician (MCDST)

The Microsoft Certified Desktop Support Technician certificate prepares students for positions troubleshooting desktop environments running on the Microsoft Windows operating system in all size organizations. The certificate also helps students prepare for the MCDST certification examination. The examination is administered by an outside agency.

Requirements for the Microsoft Certified Desktop Support Technician Certificate: Units
[Non-transcripted]
- CIS 1 Introduction to Computer Information Systems 3
- CIS 4 Fundamentals of Microsoft Windows 1.5
- CIS 68 Using the Internet 1.5
- CISHDSP 401 Microcomputer Hardware 3
- CISHDSP 410 Desktop Support Certification Preparation 3

Total units for the certificate: 15

Internet Support Specialist (I-Net+)

The Internet Support Specialist certificate prepares the student to serve as a resource for any size organization in maintaining its Internet service or Web presence, as well as to prepare for the Comp TIA I-Net+ certification examination. The examination is administered by an outside agency.

Requirements for the Internet Support Specialist Certificate: Units
[I-net + Certification Preparation] [Non-transcripted]
- CIS 1 Introduction to Computer Information Systems 3
- CIS 50 Introduction to Computer Networks 3
- CIS 68 Using the Internet 1.5
- CIS 420 Computer Security Basics 1.5
- CIS 470 Electronic Commerce 1.5
- CISIWEB 70 Creating Web Pages with HTML 1.5
- CISIWEB 410 WebMaster Tools 1.5

Total units for the certificate: 13.5

Microsoft FrontPage Web Developer

The Microsoft FrontPage Web Developer Certificate prepares students for positions using FrontPage to develop Internet and Intranet Web sites.

Requirements for the Microsoft FrontPage Web Developer Certificate: Units
[Non-transcripted]
- CIS 1 Introduction to Computer Information Systems 3
- CISIWEB 70 Creating Web Pages with HTML 1.5
- CISIWEB 410 WebMaster Tools 1.5
- CISIWEB 412A Web Development: Microsoft FrontPage 1.5
- CISIWEB 412B Web Development: Advanced Microsoft FrontPage 1.5

Total units for the certificate: 12
Microsoft Network Specialist (MCSA)

The demand for networking professionals to administer and support computer networks far exceeds the supply and will continue to do so well into the twenty-first century. The Microsoft Network Specialist Certificate enables the student to specialize in Microsoft networking as well as to prepare for the Microsoft Certification exams. The examinations are administered by an outside agency.

Requirements for the Microsoft Network Specialist Certificate: (MCSA Certification Preparation) Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1</td>
<td>Introduction to Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 4</td>
<td>Fundamentals of Microsoft Windows</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 50</td>
<td>Introduction to Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CISHDSP 401</td>
<td>Microcomputer Hardware</td>
<td>3</td>
</tr>
<tr>
<td>CISNTWK 11</td>
<td>Microsoft Network Server</td>
<td>3</td>
</tr>
<tr>
<td>CISNTWK 414</td>
<td>Managing a Microsoft Network Environment</td>
<td>3</td>
</tr>
<tr>
<td>CISNTWK 415</td>
<td>Administering a Microsoft Network Infrastructure</td>
<td>3</td>
</tr>
<tr>
<td>CISNTWK 440</td>
<td>Introduction to Network Security Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate 22.5

Network Administrator (Network +)

The demand for networking professionals to administer and support computer networks far exceeds the supply and will continue to do so well into the twenty-first century. The Networking Administrator Certificate enables the student to acquire networking skills as well as to prepare for the CompTIA Network+ and Server+ examinations. The examinations are administered by an outside agency.

Requirements for the Network Administrator Certificate (Network +) (Non-transcripted) Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1</td>
<td>Introduction to Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 50</td>
<td>Introduction to Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CISHDSP 401</td>
<td>Microcomputer Hardware</td>
<td>3</td>
</tr>
<tr>
<td>CISNTWK 11</td>
<td>Microsoft Network Server</td>
<td>3</td>
</tr>
<tr>
<td>CISNTWK 440</td>
<td>Introduction to Network Security Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate 15

Recommended:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISNTWK 401</td>
<td>Network + Examination Preparation</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Project Management

The Project Management certificate prepares students for positions requiring the efficient management of information technology projects in organizations with respect to software, planning, time, costs, and other factors.

Requirements for the Project Management Certificate: (Non-transcripted) Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1</td>
<td>Introduction to Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 50</td>
<td>Using the Internet</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 431</td>
<td>Project Management for Information Technology</td>
<td>3</td>
</tr>
<tr>
<td>CIS 435</td>
<td>Fundamentals of Microsoft Visio</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Total units for the certificate 9

Visual Basic Programmer

The Visual Basic Programmer develops and maintains applications that can be used by any size organization or Internet-based business.

Requirements for the Visual Basic Programmer Certificate: (Non-transcripted) Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1</td>
<td>Introduction to Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 15</td>
<td>Microsoft Access Database Design and Development</td>
<td>3</td>
</tr>
<tr>
<td>CIS 68</td>
<td>Using the Internet</td>
<td>1.5</td>
</tr>
<tr>
<td>CISPREG 1</td>
<td>Introduction to Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>CISPREG 3</td>
<td>Fundamentals of Visual Basic Programming</td>
<td>3</td>
</tr>
<tr>
<td>CISPREG 403</td>
<td>Advanced Visual Basic Programming</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate 16.5

Web Page Developer

Level One: The Web Page Developer Level One Certificate prepares students for positions developing Internet and Intranet Web pages.

Requirements for the Web Page Developer Level One Certificate: (Non-transcripted) Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1</td>
<td>Introduction to Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 68</td>
<td>Using the Internet</td>
<td>1.5</td>
</tr>
<tr>
<td>CISIWEB 70</td>
<td>Creating Web Pages with HTML</td>
<td>1.5</td>
</tr>
<tr>
<td>CISIWEB 410</td>
<td>WebMaster Tools</td>
<td>1.5</td>
</tr>
<tr>
<td>CISIWEB 412</td>
<td>Web Development: FrontPage/Expression</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate 10.5

Level Two: The Web Page Developer Level Two Certificate prepares students for advanced positions developing Internet and Intranet Web pages, and for those applications requiring programming skills, such as electronic commerce.

Requirements for the Web Page Developer Level Two Certificate: (Non-transcripted) Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CISIWEB 414</td>
<td>JavaScript Programming</td>
<td>3</td>
</tr>
<tr>
<td>CISIWEB 423</td>
<td>Web Development: Dreamweaver</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate 16.5
**Consumer Services Representative**

The Consumer Services Representative major provides occupational training for those who seek immediate employment as a Consumer Affairs Representative in business, government, education, or non-profit agencies. Positions include but are not limited to: customer service call centers, loan counselors, account representative, manager, customer service, complaint administrator, and workforce analyst.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSOT 88</td>
<td>Written Communication for Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 470</td>
<td>Electronic Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>CONSUM 40</td>
<td>Life Management</td>
<td>3</td>
</tr>
<tr>
<td>CONSUM 50</td>
<td>Consumer Issues</td>
<td>3</td>
</tr>
<tr>
<td>CONSUM 482</td>
<td>Industry Internship: Consumer Studies</td>
<td>1</td>
</tr>
</tbody>
</table>

Plus two courses from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSUM 11</td>
<td>Housing and Environment</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 1</td>
<td>Elementary Spanish (or SPAN 1A, Elementary Spanish, 2 and SPAN 1B, Elementary Spanish, 2)</td>
<td>4</td>
</tr>
</tbody>
</table>

Total units for the major: **19-20**

Requirements for the Consumer Services Representative Certificate:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSUM 50</td>
<td>Consumer Issues</td>
<td>3</td>
</tr>
<tr>
<td>CONSUM 482</td>
<td>Industry Internship: Consumer Studies</td>
<td>1</td>
</tr>
</tbody>
</table>

Total units for the certificate: **19-20**

**Correctional Science**

This major offers the following: (1) pre-employment education for positions in the correctional sciences field; (2) upgrading for in-service personnel; (3) a certification program; (4) an Associate in Science Degree; and (5) a transfer program for those who wish to obtain a four-year degree in the major, or allied fields, such as criminology, corrections, social services, behavioral science, or criminal justice.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRSCI 1</td>
<td>Introduction to Correctional Science</td>
<td>3</td>
</tr>
<tr>
<td>CRSCI 2</td>
<td>Control and Supervision of Inmates</td>
<td>3</td>
</tr>
<tr>
<td>CRSCI 3</td>
<td>Correctional Law</td>
<td>3</td>
</tr>
<tr>
<td>CRSCI 5</td>
<td>Crime and Delinquency</td>
<td>3</td>
</tr>
<tr>
<td>CRSCI 6</td>
<td>Correctional Interviewing and Counseling</td>
<td>3</td>
</tr>
<tr>
<td>CRSCI 8</td>
<td>Ethnic Group Relations</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus three courses from the following or approved special topics:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJ 1</td>
<td>Introduction to the Criminal Justice System</td>
<td>3</td>
</tr>
<tr>
<td>AJ 2</td>
<td>Concepts of Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>AJ 3</td>
<td>Principles and Procedures of the Justice System</td>
<td>3</td>
</tr>
<tr>
<td>AJ 4</td>
<td>Community-Based Problem Solving and the Justice System</td>
<td>3</td>
</tr>
<tr>
<td>AJ 5</td>
<td>Legal Aspects of Evidence</td>
<td>3</td>
</tr>
<tr>
<td>CRSCI 4</td>
<td>Public Relations and Corrections</td>
<td>3</td>
</tr>
<tr>
<td>CRSCI 7</td>
<td>Probation and Parole</td>
<td>3</td>
</tr>
<tr>
<td>CRSCI 10</td>
<td>Violence in America</td>
<td>3</td>
</tr>
<tr>
<td>CRSCI 409</td>
<td>The Female Victim/Offender</td>
<td>3</td>
</tr>
<tr>
<td>CRSCI 410</td>
<td>Street Gangs and Subcultures</td>
<td>3</td>
</tr>
<tr>
<td>CRSCI 411</td>
<td>Juvenile Corrections</td>
<td>3</td>
</tr>
<tr>
<td>CRSCI 450</td>
<td>Correctional Report Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the major: **27**

**Culinary Arts**

(See also Hotel and Food Service Management)

The Culinary Arts Certificate is an entry-level program that prepares students for employment opportunities in the food service industry. The program emphasizes basic preparation, production, and sanitation standards involved in food production.

Requirements for the Culinary Arts Certificate:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOTFS 10</td>
<td>Introduction to Hospitality Management</td>
<td>3</td>
</tr>
<tr>
<td>HOTFS 16</td>
<td>Principles of Food Preparation</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 16L</td>
<td>Principles of Food Preparation Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>HOTFS 18</td>
<td>Sanitation, Safety and Equipment Management</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 20</td>
<td>Purchasing, Cost Controls, and Menu Planning</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 424</td>
<td>Dining Systems and Restaurant Operations</td>
<td>3</td>
</tr>
<tr>
<td>HOTFS 432</td>
<td>Hospitality and Healthcare Law</td>
<td>3</td>
</tr>
<tr>
<td>HOTFS 434</td>
<td>Catering and Banquet Organization</td>
<td>3</td>
</tr>
<tr>
<td>HOTFS 436A</td>
<td>Culinary Arts I</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 436B</td>
<td>Culinary Arts II</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 436C</td>
<td>Culinary Arts III</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 496B</td>
<td>Work Experience</td>
<td>2</td>
</tr>
<tr>
<td>NF 11</td>
<td>Food Service Management Supervision</td>
<td>3</td>
</tr>
<tr>
<td>NF 15</td>
<td>Nutrition I: The Science of Nutrition</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate: **33**

**Dance**

The Dance program focuses on technique and performance and prepares students for university transfer and careers in dance and related fields.

Various technique and production classes are offered to provide students with a broad background of training.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Arts Degree:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANCE 1</td>
<td>Survey of Dance</td>
<td>3</td>
</tr>
<tr>
<td>DANCE 4A</td>
<td>Ballet IA</td>
<td>1.5</td>
</tr>
<tr>
<td>DANCE 4B</td>
<td>Ballet IB</td>
<td>1.5</td>
</tr>
<tr>
<td>DANCE 6A</td>
<td>Ballet IIA</td>
<td>1.5</td>
</tr>
<tr>
<td>DANCE 6B</td>
<td>Ballet IIB</td>
<td>1.5</td>
</tr>
<tr>
<td>DANCE 10A</td>
<td>Jazz Dance I</td>
<td>1-1</td>
</tr>
<tr>
<td>DANCE 20A</td>
<td>Modern Dance</td>
<td>1-1</td>
</tr>
<tr>
<td>DANCE 30A</td>
<td>Tap Dance I</td>
<td>1</td>
</tr>
<tr>
<td>DANCE 50A</td>
<td>Jazz Dance II</td>
<td>1-1</td>
</tr>
<tr>
<td>THEATRE 10</td>
<td>Beginning Acting</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus one course from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANCE 400</td>
<td>Hip Hop Dance</td>
<td>1</td>
</tr>
<tr>
<td>MUSIC 40</td>
<td>Beginning Guitar</td>
<td>1</td>
</tr>
<tr>
<td>MUSIC 51A</td>
<td>Beginning Class Piano</td>
<td>1</td>
</tr>
</tbody>
</table>

Plus one course from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANCE 42</td>
<td>Dance Workshop</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 50</td>
<td>Main Stage Production Workshop I</td>
<td>3</td>
</tr>
</tbody>
</table>
PROGRAMS OF STUDY

DENTAL ASSISTING

The Dental Assisting Program is accredited by the Commission on Dental Accreditation and Dental Board of the State of California Committee on Dental Auxiliary. The program features full-time, part-time, and fast-track schedules. The full-time schedule can be completed within one year. The part-time schedule must be completed within three years of continuous enrollment. The fast-track schedule is completed in a shorter time depending on student and clinical availability.

Students receive a comprehensive education including dental sciences, hands-on practice laboratory, dental radiation safety certification, clinical experience in a community dental practice, state-of-the-art technology, dental business management preparation and familiarity with dental specialty practices.

Students completing the program are eligible to take the Dental Assisting National Board Examination (Certified Dental Assistant) as well as the Registered Dental Assistant Examination (RDA).

Graduates are eligible for employment in private dental practices, clinics, and hospitals as assistants, technicians, and dental practice management positions.

Notes:
1. High school graduation, pass the GED test, or pass the High School Proficiency examination, or have associates degree or higher. International transcripts must have AERC, IERF or approved agency evaluation.
2. All courses required for the certificate must be completed with a minimum grade of C.
3. Before entering the clinical portion of the Dental Assisting Program, students must pass a health examination as evidence of good mental and physical health, and must have a current cardiopulmonary resuscitation (CPR) card.
4. The college does not provide transportation to clinical facilities.
5. Courses taken to meet Dental Hygiene transfer program prerequisites or other accredited Dental Assisting program courses may satisfy certain Dental Assisting course work. Consult with your counselor or the Dental Assisting Program Coordinator.
6. Part-time Dental Assisting program may be taken while meeting Dental Hygiene transfer program prerequisites.
7. Some courses may be taken during the student’s senior year in high school. Consult with your counselor or the Dental Assisting Program Coordinator.
8. The Dental Assisting Program must be completed within a three year period.
9. Applicants with a record of any felony are subject to review by the Dental Board of California before becoming licensed by the state of California.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOTFS 14</td>
<td>Quantity Food Production Management</td>
<td>3</td>
</tr>
<tr>
<td>HOTFS 16</td>
<td>Principles of Food Preparation</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 16L</td>
<td>Principles of Food Preparation Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>HOTFS 18</td>
<td>Sanitation, Safety and Equipment Management</td>
<td>2</td>
</tr>
<tr>
<td>NF 11</td>
<td>Food Service Management</td>
<td>3</td>
</tr>
<tr>
<td>NF 15</td>
<td>Nutrition I: The Science of Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>NF 19</td>
<td>Nutrition II: Modified Diets</td>
<td>3</td>
</tr>
<tr>
<td>NF 470</td>
<td>Dietetic Service Supervisor (take twice)</td>
<td>1-1</td>
</tr>
<tr>
<td>NF 470L</td>
<td>Dietetic Service Supervisor: Supervised</td>
<td>1-1</td>
</tr>
<tr>
<td></td>
<td>Clinical Laboratory (take twice)</td>
<td></td>
</tr>
</tbody>
</table>

Total units for the certificate 21

DENTAL SERVICES SUPERVISOR

(See also Hotel and Food Service Management)

This program, approved by the California State Department of Health, prepares students for entry level management in a food service department in health care, community care, or school food service organizations, including entry levels of supervision. The program fulfills the federal and state training regulations for positions in general acute-care hospitals, acute psychiatric hospitals, skilled nursing facilities, and intermediate/residential-care facilities.

Requirements for the Dietetic Services Supervisor Certificate:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOTFS 14</td>
<td>Quantity Food Production Management</td>
<td>3</td>
</tr>
<tr>
<td>HOTFS 16</td>
<td>Principles of Food Preparation</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 16L</td>
<td>Principles of Food Preparation Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>HOTFS 18</td>
<td>Sanitation, Safety and Equipment Management</td>
<td>2</td>
</tr>
<tr>
<td>NF 11</td>
<td>Food Service Management</td>
<td>3</td>
</tr>
<tr>
<td>NF 15</td>
<td>Nutrition I: The Science of Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>NF 19</td>
<td>Nutrition II: Modified Diets</td>
<td>3</td>
</tr>
<tr>
<td>NF 470</td>
<td>Dietetic Service Supervisor (take twice)</td>
<td>1-1</td>
</tr>
<tr>
<td>NF 470L</td>
<td>Dietetic Service Supervisor: Supervised</td>
<td>1-1</td>
</tr>
<tr>
<td></td>
<td>Clinical Laboratory (take twice)</td>
<td></td>
</tr>
</tbody>
</table>

Total units for the certificate 21

DIETETIC TECHNICIAN

Currently approved by the Commission on Accreditation for Dietetics Education of the American Dietetic Association (ADA, 120 S. Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, 800/877-1600), the Dietetic Technician program prepares students to take the ADA Registration Examination for Dietetic Technicians administered by that agency. Dietetic technicians are employed as managers in a designated unit or department in health care, community care, school food service, county health, and community directed programs of nutrition services for elderly, infants, or children. Dietetic technicians find themselves in the enviable position of encountering high employment opportunities for those who meet position requirements. Job growth is projected well into the 21st century.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTGFS 465</td>
<td>Financial Accounting for the Non-Accounting Major</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 424</td>
<td>Anatomy and Physiology</td>
<td>3</td>
</tr>
<tr>
<td>HOTFS 14</td>
<td>Quantity Food Production Management</td>
<td>3</td>
</tr>
<tr>
<td>HOTFS 16</td>
<td>Principles of Food Preparation</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 16L</td>
<td>Principles of Food Preparation Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>HOTFS 19</td>
<td>Sanitation, Safety and Equipment Management</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 20</td>
<td>Purchasing, Cost Controls, and Menu Planning</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 436A</td>
<td>Culinary Arts I</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>(or HOTFS 424, Dining Systems and Restaurant Operations, 3, or HOTFS 436B, Culinary Arts II, 2, or NF 27, Healthy Cooking, 2)</td>
<td></td>
</tr>
<tr>
<td>NF 11</td>
<td>Food Service Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the major 24
To obtain a preferred plan of study, consult the catalog of the appropriate transfer institution and a Chaffey College counselor. Students who intend to transfer to a four-year college or university in any major should consult the catalog of the appropriate transfer institution and a Chaffey College counselor to develop a preferred plan of study.

Earth Science
(See also Geology)

Earth Science is the application of many sciences to the understanding of the Earth. While it is often used as a synonym for geology, traditionally Earth Science encompasses a wider range of scientific inquiry including oceanography, meteorology, planetology, and soil sciences. Today's Earth Science has expanded to include environmental studies as applied to the physical world.

The curriculum is designed to provide the fundamental knowledge and skills to prepare students for transfer to a university as a junior. This is a two-year program leading to an Associate in Science Degree. Students following this program will be well suited to pursue an advanced degree in Earth Science, Environmental Science, or any related science. This program is equally intended to assist those who wish to teach Earth Science in elementary or secondary schools, those interested in understanding environmental issues, or those who desire an understanding of the Earth.

To obtain an Associate's Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.
**MATH 31** Plane Trigonometry or higher-level math 4
**ESC 1** Earth Science 3
**ENGL 1A** Composition 3
**ART 14** Introduction to Drawing 3

**Required General Education courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIOL 56</strong> Invertebrate Zoology</td>
<td>4</td>
</tr>
<tr>
<td><strong>BIOL 50</strong> Core Biology</td>
<td>4</td>
</tr>
<tr>
<td><strong>BIOL 3</strong> California Natural History</td>
<td>4</td>
</tr>
<tr>
<td><strong>BIOL 56</strong> Invertebrate Zoology</td>
<td>4</td>
</tr>
</tbody>
</table>

**Plus one course from the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GEOL 2</strong> Historical Geology</td>
<td>4</td>
</tr>
<tr>
<td><strong>GEOL 1</strong> Physical Geology</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total units for the major** 27-28

**Major requirements for the Associate in Science Degree:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MATH 425</strong> Intermediate Algebra</td>
<td>4</td>
</tr>
<tr>
<td><strong>ENGL 1A</strong> Composition</td>
<td>3</td>
</tr>
<tr>
<td><strong>ART 14</strong> Introduction to Drawing</td>
<td>3</td>
</tr>
<tr>
<td><strong>ESC 1</strong> Earth Science</td>
<td>3</td>
</tr>
</tbody>
</table>

**ECON 90A, or 92 (if not used from above group)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ECON 1</strong> Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td><strong>ECON 4</strong> Principles of Microeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>

**PHSCI 10** Survey of Chemistry and Physics 4

**Required General Education courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ART 14</strong> Introduction to Drawing</td>
<td>3</td>
</tr>
<tr>
<td><strong>ENGL 1A</strong> Composition</td>
<td>3</td>
</tr>
<tr>
<td><strong>MATH 425</strong> Intermediate Algebra</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total units for the major** 19

**Major requirements for the Associate in Science Degree:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CDE 2</strong> Child Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td><strong>COMSTD 2</strong> Fundamentals of Effective Speaking</td>
<td>3</td>
</tr>
<tr>
<td><strong>ED 10</strong> Introduction to Education and Teaching</td>
<td>3</td>
</tr>
<tr>
<td><strong>ED 400</strong> Exploring Careers in Education</td>
<td>3</td>
</tr>
<tr>
<td><strong>ENGL 1A</strong> Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total units for the certificate** 12

**Requirements for the Education Paraprofessional Level II Certificate:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ED 400</strong> Exploring Careers in Education</td>
<td>3</td>
</tr>
<tr>
<td><strong>ENGL 1A</strong> Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total units for the certificate** 23
**Electricity**

*(See Industrial Electrical Technology)*

**Engineering**

This curriculum provides students with sufficient understanding of engineering concepts and skills for attainment of upper-division status in engineering in a four-year college or university. For the non-transfer student, this curriculum should be of value in attaining employment at the level of technician.

The California Engineering Liaison Committee urges transfer students to remain in the community college until completion of lower-division requirements in mathematics, chemistry, physics, and engineering, insofar as those courses are offered.

To obtain a Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

**Major requirements for the Associate in Science Degree:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 21</td>
<td>General Chemistry and Labs</td>
<td>3, 1, 1</td>
</tr>
<tr>
<td>21L1, 21L2</td>
<td>(or ENGIN 60, Materials of Engineering, 3)</td>
<td>4</td>
</tr>
<tr>
<td>DRAFT 20</td>
<td>Computer-Aided Drafting and Design I</td>
<td>3</td>
</tr>
<tr>
<td>DRAFT 43</td>
<td>Three-Dimensional Computer Modeling and Solids Modeling</td>
<td>3</td>
</tr>
<tr>
<td>ENGIN 11</td>
<td>Introduction to Engineering</td>
<td>2</td>
</tr>
<tr>
<td>ENGIN 30</td>
<td>Engineering Application of Digital Computation</td>
<td>3</td>
</tr>
<tr>
<td>ENGIN 50</td>
<td>Engineering Statics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 65A</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 65B</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 46</td>
<td>Physics for Scientists and Engineers II</td>
<td>5</td>
</tr>
</tbody>
</table>

**Total units for the major:** 30-33

**Required General Education courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1A</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 45</td>
<td>Physics for Scientists and Engineers I</td>
<td>5</td>
</tr>
</tbody>
</table>

**Strongly recommended:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 22</td>
<td>General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 22L1</td>
<td>General Chemistry Lab II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 22L2</td>
<td>General Chemistry Lab II</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 44</td>
<td>Introduction to Motion</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 47</td>
<td>Physics for Scientists and Engineers III</td>
<td>5</td>
</tr>
</tbody>
</table>

**English**

The English major gives students an appreciation of literature and increased skills in written communication. Through the study of language and literature, students are better able to communicate, to persuade, and to understand human nature. More specifically, superior ability to understand and to use English is necessary for success in most careers, particularly those in education, writing, business, journalism, and law.

To obtain a Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

**Major requirements for the Associate in Arts Degree:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1B</td>
<td>Advanced Composition and Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1C</td>
<td>Introduction to Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 80A</td>
<td>Survey of British Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 80B</td>
<td>Survey of British Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

**Plus 12 units from the following or from approved special topics:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 7A, 7B, 7D, 7E, 30, 32, 33, 35, 68, 70A, 70B, 71, 74, 75A, 75B, 76, 79, 81, 98</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total units for the major:** 24

**Required General Education course:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1A</td>
<td>Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

**Fashion Design**

Fashion Design prepares students for entry-level positions in design, pattern making, couture studio work, production management, private label merchandising, and other related positions.

To obtain a Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

**Major requirements for the Associate in Science Degree:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSOT 63</td>
<td>Microsoft Office Excel – Comprehensive</td>
<td>3</td>
</tr>
<tr>
<td>(or BUSOT 63A, Microsoft Office Excel – Specialist, 1.5 and BUSOT 63B, Microsoft Office Excel – Expert, 1.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FASHD 20</td>
<td>History of Fashion</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 40</td>
<td>Beginning Clothing Construction</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 45</td>
<td>Basic Design and Creativity</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 61</td>
<td>Basic Patternmaking</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 65</td>
<td>Fashion Illustration</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 428</td>
<td>Computer-Aided Fashion and Costume Design</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 442</td>
<td>Industrial Sewing</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 470</td>
<td>Apparel Production</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 471</td>
<td>Advanced Patternmaking</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 472</td>
<td>Computer-Aided Patternmaking</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 480</td>
<td>Design Collection</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 482</td>
<td>Industry Internship: Fashion Design</td>
<td>1</td>
</tr>
<tr>
<td>FASHM 10</td>
<td>Introduction to the Fashion Industry</td>
<td>3</td>
</tr>
<tr>
<td>FASHM 60</td>
<td>Textiles</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total units for the major:** 37

**Requirements for the Fashion Design Certificate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSOT 63</td>
<td>Microsoft Office Excel – Comprehensive</td>
<td>3</td>
</tr>
<tr>
<td>(or BUSOT 63A, Microsoft Office Excel – Specialist, 1.5 and BUSOT 63B, Microsoft Office Excel – Expert, 1.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FASHD 20</td>
<td>History of Fashion</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 40</td>
<td>Beginning Clothing Construction</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 45</td>
<td>Basic Design and Creativity</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 61</td>
<td>Basic Patternmaking</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 65</td>
<td>Fashion Illustration</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 428</td>
<td>Computer-Aided Fashion and Costume Design</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 442</td>
<td>Industrial Sewing</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 470</td>
<td>Apparel Production</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 471</td>
<td>Advanced Patternmaking</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 472</td>
<td>Computer-Aided Patternmaking</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 480</td>
<td>Design Collection</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 482</td>
<td>Industry Internship: Fashion Design</td>
<td>1</td>
</tr>
<tr>
<td>FASHM 10</td>
<td>Introduction to the Fashion Industry</td>
<td>3</td>
</tr>
<tr>
<td>FASHM 60</td>
<td>Textiles</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total units for the certificate:** 37
Recommended Courses for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 41</td>
<td>Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>BUSMGT 44</td>
<td>Introduction to Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 63</td>
<td>Microsoft Office Excel - Comprehensive</td>
<td>3</td>
</tr>
<tr>
<td>CIS 1</td>
<td>Introduction to Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 40</td>
<td>Beginning Clothing Construction</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 42</td>
<td>Advanced Clothing Construction</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 61</td>
<td>Basic Patternmaking</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 72</td>
<td>Fashion Draping</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 442</td>
<td>Computer-Aided Pattern Making</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 482</td>
<td>Textiles</td>
<td>3</td>
</tr>
<tr>
<td>FASHM 60</td>
<td>Textiles</td>
<td>3</td>
</tr>
<tr>
<td>FASHM 10</td>
<td>Introduction to the Fashion Industry</td>
<td>3</td>
</tr>
<tr>
<td>FASHM 61</td>
<td>Textiles</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate: 27

Recommended Courses:
- BUS 41, plus AMM 410 & 410A which are Cal Poly Pomona courses available through cross-enrollment. See counselor.

Costume Design

Costume Design prepares the student to seek professional work as a costumer or assistant designer within the motion picture and television industries and live theatre, as well as freelance design and construction at the local level for community theatre and performing arts.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASHD 42</td>
<td>Advanced Clothing Construction</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 442</td>
<td>Industrial Sewing</td>
<td>2</td>
</tr>
<tr>
<td>FASHM 60</td>
<td>Textiles</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the major: 38

Requirements for the Costume Design Certificate:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEATRE 20</td>
<td>History of Fashion</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 40</td>
<td>Beginning Clothing Construction</td>
<td>2</td>
</tr>
<tr>
<td>THEATRE 45</td>
<td>Basic Design and Creativity</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 65</td>
<td>Fashion Illustration</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 428</td>
<td>Computer-Aided Fashion and Costume Design</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 442</td>
<td>Industrial Sewing</td>
<td>2</td>
</tr>
<tr>
<td>FASHM 60</td>
<td>Textiles</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 1</td>
<td>Introduction to Theatre</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 32</td>
<td>Theatre Design – Lighting</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 40</td>
<td>Stage Costuming(take twice)</td>
<td>3-3</td>
</tr>
<tr>
<td>THEATRE 42</td>
<td>Theatrical Makeup</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate: 38

Strongly recommended courses for degree and certificate:
- FASHD 42 and 72

Custom Dressmaking

The Custom Dressmaking certificate prepares the student for small business ownership in couture and custom work, as well as the highly demanded alterations field. Skills acquired also enable the student to apply for sample making in the apparel industry as a first patternmaker. Technical skills assist with employment in related areas including apparel production and costume design.

Requirements for the Custom Dressmaking Certificate:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASHD 40</td>
<td>Beginning Clothing Construction</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 42</td>
<td>Advanced Clothing Construction</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 61</td>
<td>Basic Patternmaking</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 72</td>
<td>Fashion Draping</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 442</td>
<td>Industrial Sewing</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 445</td>
<td>Fitting and Alterations of Patterns and Apparel</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 471</td>
<td>Advanced Patternmaking</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 480</td>
<td>Design Collection</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 482</td>
<td>Industry Internship: Fashion Design</td>
<td>1</td>
</tr>
<tr>
<td>FASHM 10</td>
<td>Introduction to the Fashion Industry</td>
<td>3</td>
</tr>
<tr>
<td>FASHM 60</td>
<td>Textiles</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate: 25

Recommended Courses: BUS 45, FASHD 45, FASHD 415.

Industrial Sewing

Industrial Sewing Certificate prepares the student for apparel construction based on industry methods and the use of power sewing equipment. Employment opportunities: commercial sewing machine operator or apparel industry sample maker.

Requirements for the Industrial Sewing Certificate (Non-transcripted):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASHD 40</td>
<td>Beginning Clothing Construction</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 42</td>
<td>Advanced Clothing Construction</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 442</td>
<td>Industrial Sewing</td>
<td>2</td>
</tr>
</tbody>
</table>

Total units for the certificate: 6

Patternmaking for Apparel

The Patternmaking for Apparel certificate prepares the student for employment in the apparel industry as a first patternmaker. Technical skills assist with employment in related areas including apparel production and costume design.

Requirements for the Patternmaking for Apparel Certificate:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASHD 40</td>
<td>Beginning Clothing Construction</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 61</td>
<td>Basic Patternmaking</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 72</td>
<td>Fashion Draping</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 445</td>
<td>Fitting and Alterations of Patterns and Apparel</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 470</td>
<td>Apparel Production</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 471</td>
<td>Advanced Patternmaking</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 472</td>
<td>Computer-Aided Pattern Making</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 482</td>
<td>Industry Internship: Fashion Design</td>
<td>1</td>
</tr>
<tr>
<td>FASHM 10</td>
<td>Introduction to the Fashion Industry</td>
<td>3</td>
</tr>
<tr>
<td>FASHM 60</td>
<td>Textiles</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate: 27

Recommended Courses:
- BUS 45, plus AMM 410 & 410A which are Cal Poly Pomona courses available through cross-enrollment. See counselor.

Fashion Merchandising

Fashion Merchandising prepares students for employment in all aspects of retail-related to apparel and accessory merchandise buying and management. Other career avenues are sales representatives for manufacturers, visual display, distribution, importing and exporting, and sales promotions.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 41</td>
<td>Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>BUSMGT 44</td>
<td>Introduction to Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 63</td>
<td>Microsoft Office Excel - Comprehensive</td>
<td>3</td>
</tr>
<tr>
<td>CIS 1</td>
<td>Introduction to Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>FASHD 40</td>
<td>Beginning Clothing Construction</td>
<td>2</td>
</tr>
<tr>
<td>FASHD 410</td>
<td>Introduction to the Fashion Industry</td>
<td>3</td>
</tr>
<tr>
<td>FASHM 11</td>
<td>Retail Merchandising and Management</td>
<td>3</td>
</tr>
<tr>
<td>FASHM 12</td>
<td>Visual Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>FASHM 60</td>
<td>Textiles</td>
<td>3</td>
</tr>
<tr>
<td>FASHM 482</td>
<td>Industry Internships: Fashion Merchandising</td>
<td>1</td>
</tr>
</tbody>
</table>

Recommended Courses:
- BUS 45, FASHD 45, FASHD 415.
Plus a minimum two courses from the following:

BUS 45  Small Business Ownership and Management 3
BUS 49  Business Decisions Using Basic Quantitative Tools 3
BUS 61  Introduction to Global Business 3
FASHD 45  Basic Design and Creativity 3
FASHD 428 Computer-Aided Fashion and Costume Design 2
FASHM 15  Image and Fashion Selection 3
FASHM 492A-H Special Topics: Fashion Merchandising 3

Total units for the major 32-33

Requirements for the Fashion Merchandising Certificate:
[L185/04822/1303.20]
Same as the major requirements for the A.S. Degree.

Total units for the certificate 32-33

FINE ARTS

The Fine Arts major provides fundamental training in music and theatre arts.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Arts Degree:

Units
FINART 50  Introduction to Fine Arts 3

Plus completion of one of the following emphases:

Music Emphasis
[A192/10363/1001.00]
MUSIC 2A  Music History and Literature 3
MUSIC 2B  Music History and Literature 3
MUSIC 3A  Musicianship 4

Plus nine additional units selected from the following:

Total units for the major 22

Theatre Arts Emphasis
[A194/10365/1001.00]
THEATRE 1  Introduction to Theatre 3
THEATRE 4  Development of the Theatre I 3
THEATRE 5  Development of the Theatre II 3

Plus nine additional units selected from the following:
THEATRE 2, 10, 12, 14, 16, 18, 20, 21, 30, 32, 34, 40, 42, 50, 51, 54, 56, 60, 64, 92A-H, 92LA-H, 98ABC, 427

Total units for the major 21

FIRE TECHNOLOGY:
PROFESSIONAL FIREFIGHTER

The Fire Technology degree and certificate programs are designed to (1) prepare interested students for careers in public or private fire service, (2) provide existing fire service personnel with continuing in-service training in skills applicable to their present position, (3) provide existing fire service personnel with upgraded skills needed to avail themselves of promotional opportunities, and (4) for college transfer students pursuing a higher education degree in Fire Protection Administration and Technology.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

FIRETEC 1  Fire Protection and Organization 3
FIRETEC 2  Fire Behavior and Combustion 3
FIRETEC 3  Fire Protection Systems 3
FIRETEC 4  Building Construction for Fire Protection 3
FIRETEC 5  Fire Prevention 3
FIRETEC 6  Fire Apparatus and Equipment 3

Plus two courses from the following:
FIRETEC 7  Strategies and Tactics 3
FIRETEC 8  Fire Ground Hydraulics 3
FIRETEC 402 Basic Incident Command Systems, ICS-200 1
FIRETEC 403 Intermediate Incident Command Systems, ICS-300 1.5
FIRETEC 405 Hazardous Materials First Responder Operations 1

Total units for the major 20-24

Requirements for the Fire Technology: Professional Firefighter Certificate:
[L141/15674/2133.00]
Same as the major requirements for the A.S. Degree.

Total units for the certificate 20-24

FOREIGN LANGUAGES

(See Modern Languages)

GEOGRAPHIC INFORMATION SYSTEMS

GIS is a field of geography that relies on spatial data and its use in management, analysis, and communication.

Requirements for the Vocational GIS
(Geographic Information Systems) Specialist Certificate:
(Non-transcripted)
[L210/99999/2206.10]
GIS 1  Introduction to Geographic Information Systems (or GIS 1A, Introduction to GIS I, 2 and GIS 1B, Introduction to GIS II, 2)
GEOG 4  Physical Geography 3
GEOG 5  Physical Geography Laboratory 1
GEOG 6  Environmental Geography 3

Plus three units from the following:
GEOG 1  World Regional Geography 3
GEOG 10  Cultural Geography of North America 3
GEOG 11  World Cultures 3

Total units for the certificate 14

Note: Course work must be completed within a five-year period.
PROGRAMS OF STUDY

GEOGRAPHY

Geographers integrate time, space, and demographics into maps which have both academic and applied values. Geography is an interdisciplinary area of study that interfaces with earth sciences, life sciences, business, and teaching. The field of geography requires that students be broadly based in two major areas: cultural geography and physical geography. These areas form the core of the curriculum. Students may then pursue other areas of concentration.

Geography specialists may focus on meteorology, economic geography, urban geography, political geography, historical geography, geomorphology, environmental geography, or biogeography. Geographical knowledge has specific application to urban planning, environmental studies, business, defense, satellite mapping, demographics, history, and economics. Geography is also a core area of study for elementary or high school teachers. Students interested in a teaching career can focus on the General Studies requirements for the target school along with cultural geography and physical geography with a lab.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics through Trigonometry</td>
<td></td>
</tr>
<tr>
<td>GEOG 1 World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 3 Geography of California</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 4 Physical Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 5 Physical Geography Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>GEOG 6 Environmental Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 10 Cultural Geography of North America</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 11 World Cultures</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the major: 19

Note: Computer literacy is basic to geography. Students would be well advised to acquire knowledge of word processing, database, graphing, and graphics programs.

GEOLGY

(See also Earth Science)

Unique among the sciences, geology embraces a broad spectrum of scientific inquiry. Geologists systematically amassed observation data and measurements to compile and organize the body of knowledge about Earth.

Specialized geological studies apply information and techniques from other sciences and engineering to solve problems of the physical environment. Examples of geological specialties include the following: paleontology, the study of prehistoric biology; mineralogy, the application of chemistry and physics to the mineral kingdom; petrology, the application of chemistry and physics to understanding the origin and history of rocks; engineering geology, the application of geological and engineering information to construction of roads, dams, tunnels, landslide stabilization, etc.; and hydrology, the study of surface and underground water supplies.

Basic Geology

Basic Geology is designed to provide fundamental knowledge and skills known to be useful for paraprofessional employment in the fields of geology and soils technology. This curriculum incorporates methods for recording field notes, sampling, gathering and organizing geologic information, geologic mapping and drafting geologic maps, locating and plotting information on topographic maps, constructing topographic profiles and geologic cross-sections, conducting basic tests in the field and laboratory, and geological problem solving.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 1 Fundamentals of Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 1 Physical Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 2 Historical Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 30 Geology of California</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 30T Geology of California Field Trip</td>
<td>1.5</td>
</tr>
<tr>
<td>PHYS 5 The Ideas of Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 6 The Ideas of Physics Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 80 Mineralogy I</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 85 Petrology I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 31 Plane Trigonometry (or higher level math)</td>
<td>4</td>
</tr>
</tbody>
</table>

Preprofessional Geology

Preprofessional geology is designed to provide students with the basic knowledge and skills necessary for transfer as a geology major in junior standing. This is a two-year program leading to an Associate in Science Degree. A career in professional geology normally requires a master of science degree. This program provides the required background for upper division studies in geology. There is an increasing need for career geologists in the following areas: environmental and engineering geology, application of geology to the development of urban and metropolitan areas; hydrology, application of geology to surface and subsurface water resources including protection of water quality and purity; public sector, governmental agencies responsible for the geologic and natural resources of the United States and foreign countries, and public academic and research institutions.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 21 General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 21L General Chemistry Lab I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 21L2 General Chemistry Lab I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 22L General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 22L1 General Chemistry Lab II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 22L2 General Chemistry Lab II</td>
<td>1</td>
</tr>
<tr>
<td>CS 1 Fundamentals of Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 1 Physical Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 2 Historical Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL 30 Geology of California</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 30T Geology of California Field Trip</td>
<td>1.5</td>
</tr>
<tr>
<td>PHYS 5 The Ideas of Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 6 The Ideas of Physics Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 31 Plane Trigonometry (or higher level math)</td>
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</tr>
<tr>
<td>CHEM 31 Plane Trigonometry (or higher level math)</td>
<td>4</td>
</tr>
</tbody>
</table>
GERONTOLOGY

Gerontology prepares students for new careers resulting from the increasing population of older people. This is an interdisciplinary field incorporating research on aging in psychology, physiology, and sociology as well as public policy and social ethics.

Gerontology courses provide short-term training for immediate employment and may also lead to a Community Caregiver certificate, a certificate in Gerontology, or an Associate in Science degree in Gerontology. Nurses, social workers, and administrators of care facilities may earn Continuing Education units.

Gerontology is increasingly important in professions such as medicine, law, architecture, mental health, and social work. Transfer students will find Gerontology courses at more than 15 California universities. Other employment opportunities are found in residential communities, recreation, marketing, nutrition, counseling and referral, paralegal services, and businesses and agencies serving older adults, including persons with dementia.

To obtain an Associate's Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

**Major requirements for the Associate in Science Degree:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GER 11 Introduction to Gerontology</td>
<td>3</td>
</tr>
<tr>
<td>GER 18 Sociology of Aging</td>
<td>3</td>
</tr>
<tr>
<td>GER 21 Developmental Psychology: Adulthood and Aging</td>
<td>3</td>
</tr>
<tr>
<td>GER 404 Health and Wellness for Older Adults</td>
<td>3</td>
</tr>
<tr>
<td>GER 405 Resources and Services for Older Adults</td>
<td>2</td>
</tr>
<tr>
<td>GER 406 Gerontology Career Practicum</td>
<td>1</td>
</tr>
<tr>
<td>SCSCI 13 Introduction to Social Work</td>
<td>3</td>
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<tr>
<td><strong>Total units for the major</strong></td>
<td><strong>25-28</strong></td>
</tr>
</tbody>
</table>

**Plus three courses from the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTGFS 440 Introduction to Financial Planning</td>
<td>3</td>
</tr>
<tr>
<td>BUS 40 Marketing Principles</td>
<td>3</td>
</tr>
<tr>
<td>BUSMGT 480 Principles of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>GER 22 Dying and Death (also available as SCSCI 22)</td>
<td>3</td>
</tr>
<tr>
<td>GER 422A Dementia Care: Understanding Dementing Illnesses (or 422B Dementia Care: Understanding Difficult Behaviors</td>
<td>1</td>
</tr>
<tr>
<td>GER 462 Activity Coordinator Training</td>
<td>4</td>
</tr>
<tr>
<td>GER 463 Social Work Designee Training</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total units for the major</strong></td>
<td><strong>25-28</strong></td>
</tr>
</tbody>
</table>

**Requirements for the Gerontology Certificate:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GER 405 Resources and Services for Older Adults</td>
<td>2</td>
</tr>
<tr>
<td>GERO 422A Dementia Care: Understanding Dementing Illnesses</td>
<td>1</td>
</tr>
<tr>
<td>(or 422B Dementia Care: Understanding Difficult Behaviors or 422C Dementia Care: Planning Meaningful Activities)</td>
<td></td>
</tr>
<tr>
<td>GERO 462 Activity Coordinator Training (or GERO 463, Social Work Designee Training, 3)</td>
<td>4</td>
</tr>
<tr>
<td>NURAST 400* Nursing Assistant</td>
<td>3.5</td>
</tr>
<tr>
<td>NURAST 400L* Nursing Assistant Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>NURAST 405* Nursing Assistant Skills Laboratory</td>
<td>0.5</td>
</tr>
<tr>
<td>NURAST 420** Home Health Aide</td>
<td>1.5</td>
</tr>
<tr>
<td>NURAST 420L** Home Health Aide Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>NURAST 450* Professional Development for the Nursing Assistant</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total units for the certificate</strong></td>
<td><strong>6-16.5</strong></td>
</tr>
</tbody>
</table>

*Students must take these four NURAST courses or provide proof of a current California State Nursing Assistant Certificate.*  
**Students must take these two NURAST courses or provide proof of a current California State Home Health Aide Certificate.*

**History**

Students find that history deepens awareness of the world, past and present, and cultivates appreciation for beneficial community participation. A foundation in this subject is excellent for many fields of endeavor, including law, public administration, foreign service, journalism, business, and teaching.

To obtain an Associate's Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

**Major requirements for the Associate in Arts Degree:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1 World History: Pre-Civilization to 1500</td>
<td>3</td>
</tr>
<tr>
<td>HIST 2 World History: 1500 to Present</td>
<td>3</td>
</tr>
<tr>
<td>HIST 17 History of the United States</td>
<td>3</td>
</tr>
<tr>
<td>HIST 18 History of the United States</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total units for the major</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

**Plus six units from the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 3, 5</td>
<td></td>
</tr>
<tr>
<td>English 1C</td>
<td></td>
</tr>
<tr>
<td>History 4, 7, 16, 20, 21, 25, 40, 50, 51, 70, 71, 92A-H Humanities 5, 6, 20</td>
<td></td>
</tr>
<tr>
<td><strong>Total units for the major</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>
**Hotel and Food Service Management:**

**Food Service**

The Food Service program prepares students for management positions in the rapidly growing food service industry. Graduates are prepared to assume management responsibilities in restaurants, resorts, commercial food services, institutional and owner-operated businesses, food production, and related commercial food sales and services.

**Note:** A current negative tuberculosis test is required for participation in this program.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

**Major requirements for the Associate in Science Degree:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOTFS 436A</td>
<td>Culinary Arts I</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 436B</td>
<td>Culinary Arts II</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 436C</td>
<td>Culinary Arts III</td>
<td>2</td>
</tr>
<tr>
<td>NF 15</td>
<td>Nutrition I: The Science of Nutrition (or NF 5, Nutrition for Life, or NF 25, Culture and Nutrition)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Strongly Recommended:**

- HOTFS 434 Catering and Banquet Organization 3
- HOTFS 10 Introduction to Hospitality Management 3
- HOTFS 14 Principles of Food Preparation 2
- HOTFS 16L Principles of Food Preparation Laboratory 1
- HOTFS 424 Dining Systems and Restaurant Operations 3
- HOTFS 428 Human Resource Management (or NF 11, Food Service Management Supervision) 3
- HOTFS 430 Hospitality Marketing Management 2
- HOTFS 432 Hospitality and Healthcare Law 3
- HOTFS 433 Catering and Banquet Organization 3

**Total units for the major** 30

**Requirements for the Hotel and Food Service Management:**

**Food Service Certificate:**

- [L255/04799/1307.10]
- Same as the major requirements for the A.S. Degree, plus:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTGFS 465</td>
<td>Financial Accounting for the Non-Accounting Major</td>
<td>3</td>
</tr>
<tr>
<td>HOTFS 10</td>
<td>Introduction to Hospitality Management</td>
<td>3</td>
</tr>
<tr>
<td>HOTFS 14</td>
<td>Quantity Food Production Management</td>
<td>3</td>
</tr>
<tr>
<td>HOTFS 16</td>
<td>Principles of Food Preparation</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 16L</td>
<td>Principles of Food Preparation Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>HOTFS 18</td>
<td>Sanitation, Safety and Equipment Management</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 20</td>
<td>Purchasing, Cost Controls, and Menu Planning</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 424</td>
<td>Dining Systems and Restaurant Operations</td>
<td>3</td>
</tr>
<tr>
<td>HOTFS 428</td>
<td>Human Resource Management (or NF 11, Food Service Management Supervision)</td>
<td>3</td>
</tr>
</tbody>
</table>

**HOTFS 496A-D Work Experience 1-4**

**Total units for the certificate** 37-40

**Requirements for the Hotel and Food Service Management:**

**Hotel Management Certificate:**

- [L260/04801/1307.20]
- Same as the major requirements for the A.S. Degree, plus:

<table>
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<td>Introduction to Hospitality Management</td>
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<tr>
<td>HOTFS 16</td>
<td>Principles of Food Preparation</td>
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<tr>
<td>HOTFS 20</td>
<td>Purchasing, Cost Controls, and Menu Planning</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 422</td>
<td>Hotel Operations</td>
<td>3</td>
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<tr>
<td>HOTFS 424</td>
<td>Dining Systems and Restaurant Operations</td>
<td>3</td>
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<tr>
<td>HOTFS 428</td>
<td>Human Resource Management (or NF 11, Food Service Management Supervision)</td>
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<tr>
<td>HOTFS 430</td>
<td>Hospitality Marketing Management</td>
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<tr>
<td>HOTFS 432</td>
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**HOTFS 496A-D Work Experience 1-4**

**Total units for the certificate** 30-33

**HOTFS 436C Culinary Arts III 2**

**HOTFS 496B-D Work Experience 2-4**

**Total units for the certificate** 22-24

**Requirements for the Hotel and Food Service Management:**

**Food Service/Waitstaff Personnel Certificate (Non-transcripted):**

- [L247/99999/1307.10]
- Entry-level program designed to prepare the student for employment as a food server in the hospitality industry. Students will be exposed to a variety of service styles and restaurant settings designed to facilitate a seamless transition between course work and industry.

<table>
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<tr>
<th>Course Code</th>
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<td>HOTFS 16L</td>
<td>Principles of Food Preparation Laboratory</td>
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<tr>
<td>HOTFS 496A-D</td>
<td>Work Experience</td>
<td>1-4</td>
</tr>
</tbody>
</table>

**Plus one of the following:**

- HOTFS 424 Dining Systems and Restaurant Operations 3
- HOTFS 434 Catering and Banquet Organization 3

**Total units for the certificate** 10-13

**Hotel and Food Service Management:**

**Hotel Management**

Students who receive the Associate in Science degree or certificate in the Hotel Management program will be prepared to work in entry-level management positions of the hospitality industry. Included among the employment opportunities are restaurants, hotels, institutional kitchens, catering operations, bed and breakfast operations, and owner-operated businesses.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

**Major requirements for the Associate in Science Degree:**

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<tr>
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<tr>
<td>HOTFS 18</td>
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<td>2</td>
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<tr>
<td>HOTFS 20</td>
<td>Purchasing, Cost Controls, and Menu Planning</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 22</td>
<td>Hotel Operations</td>
<td>3</td>
</tr>
<tr>
<td>HOTFS 24</td>
<td>Dining Systems and Restaurant Operations</td>
<td>3</td>
</tr>
<tr>
<td>HOTFS 428</td>
<td>Human Resource Management (or NF 11, Food Service Management Supervision)</td>
<td>3</td>
</tr>
<tr>
<td>HOTFS 430</td>
<td>Hospitality Marketing Management</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 432</td>
<td>Hospitality and Healthcare Law</td>
<td>3</td>
</tr>
<tr>
<td>HOTFS 434</td>
<td>Catering and Banquet Organization</td>
<td>3</td>
</tr>
<tr>
<td>NF 15</td>
<td>Nutrition I: The Science of Nutrition (or NF 5, Nutrition for Life, or NF 25, Culture and Nutrition)</td>
<td>3</td>
</tr>
</tbody>
</table>

**HOTFS 496A-D Work Experience 1-4**

**Total units for the major** 33

**Requirements for the Hotel and Food Service Management:**

**Hotel Management Certificate:**

- [L260/04801/1307.20]
- Same as the major requirements for the A.S. Degree, plus:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSOT 60A</td>
<td>Microsoft Office Word – Specialist (or CIS 1, Introduction to Computer Information Systems)</td>
<td>3</td>
</tr>
<tr>
<td>HOTFS 10</td>
<td>Introduction to Hospitality Management</td>
<td>3</td>
</tr>
<tr>
<td>HOTFS 16</td>
<td>Principles of Food Preparation</td>
<td>2</td>
</tr>
<tr>
<td>HOTFS 16L</td>
<td>Principles of Food Preparation Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>HOTFS 496A-D</td>
<td>Work Experience</td>
<td>1-4</td>
</tr>
</tbody>
</table>

**Total units for the certificate** 37-40
Major requirements for the Associate in Arts Degree:  
Total units for the major 24

Note: Courses included in major cannot be used to fulfill General Education requirements.

Industrial Electrical Technology

The Industrial Electrical Technology program curriculum covers electricity, magnetism, solid-state devices, electrical machinery, micro processing, programmable logic controllers (PLC), DC and AC variable speed drives, and automation, including modern sophisticated concepts and practical applications.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:  
Total units for the major 35

Programs of Study

Humanities

The Humanities major offers students a sound liberal arts background in literature, philosophy, art, music, and theatre for students going on into business, politics, law, personnel relations, and education.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Arts Degree:  
Total units for the major 24

Note: Courses included in major cannot be used to fulfill General Education requirements.

Industrial Electrical Technology

The Industrial Electrical Technology program curriculum covers electricity, magnetism, solid-state devices, electrical machinery, micro processing, programmable logic controllers (PLC), DC and AC variable speed drives, and automation, including modern sophisticated concepts and practical applications.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.
Programs of Study

Strongly recommended:
IET 496ABCD Internship in Industrial Electricity 1-4
(Internship not to exceed 4 units)

Requirements for the Industrial Electrical Technology Level I Certificate:
(Non-transcripted)
[L150/99999/0934.40]
IET 401A Introduction to Electricity 2.5
IET 401B Industrial Basic Controls 2.5
IET 403A Electrical Motors and Controls I 2.5
IET 403B Electrical Motors and Controls II 2.5
IET 405 National Electrical Code 3
IET 407 Electrical Blueprints 3

Total units for the certificate 16

Strongly recommended:
IET 496ABCD Internship in Industrial Electricity 1-4
(Internship not to exceed 4 units)

Requirements for the Industrial Electrical Technology Level II Certificate:
(Non-transcripted)
[L151/15517/0934.40]
Same requirements as for Level One Certificate, plus: 16
IET 409 Static Devices 3
IET 411 Programmable Logic Controllers 3
IET 413 Intermediate Programmable Logic Controllers 3
IET 415 Advanced Electricity Laboratory 2

Total units for the certificate 27

Strongly recommended:
IET 496ABCD Internship in Industrial Electricity 1-4
(Internship not to exceed 4 units)

Requirements for the Industrial Electrical Technician (Level III) Certificate:
(Non-transcripted)
[L158/99999/0943.00]
Same as the major requirements for the A.S. Degree.

Total units for the certificate 35

Instrumentation Technology

The Instrumentation Technology program curriculum covers electricity, level process, flow process, temperature process, proportional integral and derivative loops, basic programming of microprocessor-based controllers, troubleshooting, automation including modern sophisticated concepts, and practical applications.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree: Units

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1</td>
<td>3</td>
</tr>
<tr>
<td>IET 401A Introduction to Electricity</td>
<td>2.5</td>
</tr>
<tr>
<td>IET 401B Industrial Basic Controls</td>
<td>2.5</td>
</tr>
<tr>
<td>IET 407 Electrical Blueprints</td>
<td>3</td>
</tr>
<tr>
<td>IETIT 441 Flow Process Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>IETIT 442 Flow Measurement and Control</td>
<td>2</td>
</tr>
<tr>
<td>IETIT 443 Level Measurement Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>IETIT 444 Level Measurement and Control</td>
<td>2</td>
</tr>
<tr>
<td>IETIT 445 Temperature Process Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>IETIT 446 Temperature Process Controller</td>
<td>2</td>
</tr>
</tbody>
</table>

Total units for the major 23

Strongly recommended:
IET 496ABCD Internship in Industrial Electricity 1-4
(Internship not to exceed 4 units)

Requirements for the Instrumentation Technology Level I Certificate:
(Non-transcripted)
[L154/07378/0943.00]
Same as the major requirements for the A.S. Degree.

Total units for the certificate 15

Requirements for the Instrumentation Technology Level II Certificate:
(Non-transcripted)
[L159/15523/0943.00]
Same as the major requirements for the A.S. Degree.

Total units for the certificate 23

Strongly recommended:
IET 496ABCD Internship in Industrial Electricity 1-4
(Internship not to exceed 4 units)
**INTERIOR DESIGN**

The Interior Design curriculum is planned both as professional preparation for those entering the interior design field and as a transfer program for students planning to transfer to a four-year college. Students receive a strong background in color, design principles, furniture construction and design, architectural materials, furniture layout, space planning, business principles, computer aided design, and the historical development of furniture, architecture, art, and decorative arts.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

**Major requirements for the Associate in Science Degree:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>ART 10</td>
<td>Fundamentals of Design in Two Dimensions</td>
</tr>
<tr>
<td>3</td>
<td>FASHM 60</td>
<td>Textiles</td>
</tr>
<tr>
<td>3</td>
<td>ID 10</td>
<td>Introduction to Interior Design</td>
</tr>
<tr>
<td>3</td>
<td>ID 11</td>
<td>History of Western Architecture and Interiors I</td>
</tr>
<tr>
<td>3</td>
<td>ID 12</td>
<td>History of Western Architecture and Interiors II</td>
</tr>
<tr>
<td>3</td>
<td>ID 13</td>
<td>Non-European Architecture and Design</td>
</tr>
<tr>
<td>2.5</td>
<td>ID 16</td>
<td>Quick Sketching for Interior Designers</td>
</tr>
<tr>
<td>3</td>
<td>ID 17</td>
<td>Introduction to Lighting</td>
</tr>
<tr>
<td>3</td>
<td>ID 21</td>
<td>Space Planning</td>
</tr>
<tr>
<td>3</td>
<td>ID 22</td>
<td>Interior Design Materials</td>
</tr>
<tr>
<td>3</td>
<td>ID 25</td>
<td>Interior Design Management</td>
</tr>
<tr>
<td>2</td>
<td>ID 30</td>
<td>Advanced Design Studio</td>
</tr>
<tr>
<td>3.5</td>
<td>ID 427</td>
<td>Computer Aided Design for Set and Interior Design</td>
</tr>
<tr>
<td>1</td>
<td>ID 482</td>
<td>Industry Internship: Interior Design</td>
</tr>
</tbody>
</table>

Total units for the major: **40**

**Recommended:**

- ART 3 Art History of Western World: Ancient - 1400
- BUS 13 Professional Selling
- COMSTD 2 Fundamentals of Effective Speaking
- CONSUM 11 Housing and Environment
- DRAFT 410 Building Trades Blueprint Reading
- FASHM 12 Visual Merchandising

**Requirements for the Interior Design Certificate:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>CHEM 21</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>1</td>
<td>CHEM 21L1</td>
<td>General Chemistry Lab I</td>
</tr>
<tr>
<td>1</td>
<td>CHEM 21L2</td>
<td>General Chemistry Lab II</td>
</tr>
<tr>
<td>3</td>
<td>CHEM 22</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>1</td>
<td>CHEM 22L1</td>
<td>General Chemistry Lab I</td>
</tr>
<tr>
<td>1</td>
<td>CHEM 22L2</td>
<td>General Chemistry Lab II</td>
</tr>
</tbody>
</table>

Total units for the certificate: **40**

**JOURNALISM**

The Journalism certificate is designed to provide students an opportunity to sample the cross-curricular course offerings at the college in preparation for a career in the mass media. The program is well suited for 2-year students planning to enter the fields of writing, photography, and design for publication directly, as well as for those planning to transfer to a 4-year degree program in journalism or mass communications. Course offerings include Journalism practice and theory, English, Photography, computer skills and Communication Studies.

**Requirements for the Journalism Certificate:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>CIS 1</td>
<td>Introduction to Computer Information Systems</td>
</tr>
<tr>
<td>3</td>
<td>COMSTD 12</td>
<td>Mass Communication and Society</td>
</tr>
<tr>
<td>3</td>
<td>ENGL 1A</td>
<td>Composition</td>
</tr>
<tr>
<td>3</td>
<td>JOUR 10</td>
<td>Newswriting</td>
</tr>
<tr>
<td>3</td>
<td>JOUR 11</td>
<td>Advanced Newswriting and Editing</td>
</tr>
<tr>
<td>3</td>
<td>JOUR 61ABC</td>
<td>Newspaper Production</td>
</tr>
<tr>
<td>4</td>
<td>PHOTO 10</td>
<td>Beginning Photography</td>
</tr>
</tbody>
</table>

Total units for the certificate: **40**

**Plus a minimum of three units from the following:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>ART 63</td>
<td>Introduction to Graphic Design</td>
</tr>
<tr>
<td>3</td>
<td>BRDCAST 3</td>
<td>Survey of Broadcasting and Electronic Media</td>
</tr>
<tr>
<td>4</td>
<td>ENGL 7A</td>
<td>Creative Writing: Short Fiction</td>
</tr>
<tr>
<td>3</td>
<td>ENGL 7E</td>
<td>Creative Writing: Nonfiction</td>
</tr>
<tr>
<td>4</td>
<td>ENGL 35</td>
<td>Literary Magazine Production</td>
</tr>
<tr>
<td>4</td>
<td>PHOTO 20</td>
<td>Photography for Publications</td>
</tr>
<tr>
<td>2</td>
<td>PHOTO 21</td>
<td>Public Relations and Communications Photography</td>
</tr>
</tbody>
</table>

Total units for the certificate: **25**

**MANAGEMENT**

(See Business Management)

**MARKETING/MERCHANDISING**

(See Business and Fashion Merchandising)

**MATHEMATICS**

The Mathematics major provides students with sufficient understanding of mathematical concepts, skills, and applications to attain upper-division status in mathematics at a four-year college or university.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

**Major requirements for the Associate in Science Degree:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>CS 1</td>
<td>Fundamentals of Computer Science</td>
</tr>
<tr>
<td>4</td>
<td>MATH 65A</td>
<td>Calculus I</td>
</tr>
<tr>
<td>4</td>
<td>MATH 65B</td>
<td>Calculus II</td>
</tr>
<tr>
<td>4</td>
<td>MATH 75</td>
<td>Calculus III</td>
</tr>
<tr>
<td>5</td>
<td>MATH 85</td>
<td>Differential Equations</td>
</tr>
</tbody>
</table>

**Group I:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>CHEM 21</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>1</td>
<td>CHEM 21L1</td>
<td>General Chemistry Lab I</td>
</tr>
<tr>
<td>1</td>
<td>CHEM 21L2</td>
<td>General Chemistry Lab II</td>
</tr>
<tr>
<td>3</td>
<td>CHEM 22</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>1</td>
<td>CHEM 22L1</td>
<td>General Chemistry Lab I</td>
</tr>
<tr>
<td>1</td>
<td>CHEM 22L2</td>
<td>General Chemistry Lab II</td>
</tr>
</tbody>
</table>

**Group II:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>PHYS 45</td>
<td>Physics for Scientists and Engineers I</td>
</tr>
<tr>
<td>5</td>
<td>PHYS 46</td>
<td>Physics for Scientists and Engineers II</td>
</tr>
<tr>
<td>5</td>
<td>PHYS 47</td>
<td>Physics for Scientists and Engineers III</td>
</tr>
</tbody>
</table>

Total units for the major: **30-35**

**Required General Education course:**

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ENGL 1A</td>
<td>Composition</td>
</tr>
</tbody>
</table>
MODERN LANGUAGES

Majoring in a modern language may lead to positions in teaching, research, journalism, government, or business. Languages are a valuable asset to scientists, historians, lawyers, sales persons, musicians, travelers — in fact, to almost anyone. Language study affords new perspectives on the world and on one’s mother tongue. It is intriguing to read or to see newspapers, magazines, websites, poems, and stories in American Sign Language, French, German, Mandarin, or Spanish. Communication, access, and job opportunities are expanded and enhanced by learning a modern language.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

French

Major requirements for the Associate in Arts Degree:

<table>
<thead>
<tr>
<th>Units</th>
<th>requirement</th>
<th>description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FR 1, 2</td>
<td>4-4</td>
<td>Elementary French</td>
</tr>
<tr>
<td>FR 3, 4</td>
<td>4-4</td>
<td>Intermediate French</td>
</tr>
<tr>
<td>FR 15</td>
<td>2</td>
<td>French Conversation</td>
</tr>
<tr>
<td>(or FR 92A-H, Special Topics: French Literature)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Plus six units from the following:

- A second modern language (American Sign Language, Chinese, French, German)
- Art 3, 5
- Communication Studies 8
- English 70A, 70B
- Fine Arts 50
- History 1, 2
- Music 4

Total units for the major 24

Note: Students who enter with advanced standing in French are required to complete a minimum 24 units in the above courses.

Spanish

Major requirements for the Associate in Arts Degree:

<table>
<thead>
<tr>
<th>Units</th>
<th>requirement</th>
<th>description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Track A (Native Speakers Track)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPAN 1SS</td>
<td>4</td>
<td>Elementary Spanish for Spanish Speakers</td>
</tr>
<tr>
<td>SPAN 2SS</td>
<td>4</td>
<td>Intermediate Spanish for Spanish Speakers</td>
</tr>
<tr>
<td>SPAN 3</td>
<td>4</td>
<td>Intermediate Spanish</td>
</tr>
<tr>
<td>SPAN 4</td>
<td>4</td>
<td>Intermediate Spanish</td>
</tr>
<tr>
<td>SPAN 7</td>
<td>3</td>
<td>Survey of Hispanic Literature: 1100-1700</td>
</tr>
<tr>
<td>(or SPAN 8, Survey of Hispanic Literature: 1700-Present, or SPAN 13, Survey of Mexican Literature)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Track B (Non-Native Speakers Track)

<table>
<thead>
<tr>
<th>Units</th>
<th>requirement</th>
<th>description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 1</td>
<td>4</td>
<td>Elementary Spanish</td>
</tr>
<tr>
<td>(or SPAN 1A, Elementary Spanish, 2 and SPAN 1B, Elementary Spanish, 2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPAN 2</td>
<td>4</td>
<td>Intermediate Spanish</td>
</tr>
<tr>
<td>(or SPAN 2A, Intermediate Spanish, 2 and SPAN 2B, Elementary Spanish, 2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPAN 3, 4</td>
<td>4-4</td>
<td>Intermediate Spanish</td>
</tr>
<tr>
<td>SPAN 13</td>
<td>3</td>
<td>Survey of Mexican Literature</td>
</tr>
<tr>
<td>SPAN 15*</td>
<td>2</td>
<td>Elementary Spanish Conversation</td>
</tr>
</tbody>
</table>

Plus six units from the following:

- A second modern language (American Sign Language, Chinese, French, German)
- Art 3, 5
- Communication Studies 8
- English 70A, 70B
- History 1, 2, 70, 71
- Spanish 7*, 8*, 13

Total units for the major 25-27

*Spanish 7 or 8 may substitute for Spanish 15 in the core requirements, but may not be counted twice.

Note: Students who enter with advanced standing in Spanish are required to complete a minimum 24 units in the above courses.

MUSIC

The Music curriculum provides participation in musical performance activities as well as courses of interest to the general college student who seeks music for personal satisfaction or who wishes to expand knowledge and appreciation of the arts. A full program of courses is available to the prospective major who wishes to make music the subject of concentration leading to a degree and transfer to a university.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Arts Degree:

<table>
<thead>
<tr>
<th>Units</th>
<th>requirement</th>
<th>description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSIC 2A</td>
<td>3</td>
<td>Music History and Literature</td>
</tr>
<tr>
<td>MUSIC 2B</td>
<td>3</td>
<td>Music History and Literature</td>
</tr>
<tr>
<td>MUSIC 3A</td>
<td>4</td>
<td>Musicianship</td>
</tr>
<tr>
<td>MUSIC 3B</td>
<td>4</td>
<td>Musicianship</td>
</tr>
<tr>
<td>MUSIC 51A*</td>
<td>1</td>
<td>Beginning Class Piano</td>
</tr>
<tr>
<td>MUSIC 51B*</td>
<td>1</td>
<td>Beginning Class Piano</td>
</tr>
<tr>
<td>MUSIC 52</td>
<td>1</td>
<td>Intermediate Piano (take twice)</td>
</tr>
<tr>
<td>MUSIC 70A</td>
<td>3</td>
<td>Harmony and Intermediate Musicianship</td>
</tr>
<tr>
<td>MUSIC 70B</td>
<td>3</td>
<td>Harmony and Intermediate Musicianship</td>
</tr>
<tr>
<td>MUSIC 71</td>
<td>1</td>
<td>Harmony and Intermediate Musicianship</td>
</tr>
</tbody>
</table>

*Students may be exempt from the MUSIC 51 series upon passing a proficiency exam

Plus six units from the following: (courses may be repeated)

<table>
<thead>
<tr>
<th>Units</th>
<th>requirement</th>
<th>description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSIC 32</td>
<td>2</td>
<td>Concert Choir</td>
</tr>
<tr>
<td>MUSIC 33</td>
<td>1.5</td>
<td>Concert Ensemble Singers</td>
</tr>
<tr>
<td>MUSIC 60</td>
<td>1.5</td>
<td>Jazz Band</td>
</tr>
<tr>
<td>MUSIC 62A</td>
<td>1.5</td>
<td>Beginning Community Concert Band</td>
</tr>
<tr>
<td>MUSIC 62B</td>
<td>1.5</td>
<td>Intermediate Community Concert Band</td>
</tr>
<tr>
<td>MUSIC 62C</td>
<td>1.5</td>
<td>Advanced Community Concert Band</td>
</tr>
<tr>
<td>MUSIC 67</td>
<td>1.5</td>
<td>Latin Jazz Band</td>
</tr>
<tr>
<td>MUSIC 68</td>
<td>1.5</td>
<td>Mariachi Band</td>
</tr>
</tbody>
</table>

Total units for the major 28-30

Notes:

1. All students wishing to major in music are advised to begin the major in the first semester of enrollment. It is otherwise impossible to complete the program in two years. Enrollment in MUSIC 3A, 51A and a performance class should commence the first semester.
2. All music majors are expected to be enrolled in a public performance course each semester (MUSIC 32, 33, 60, 62A, 62B, 62C, 68). Part-time students must enroll in a performance class four semesters (not necessarily consecutive) for a minimum of six units.
Commercial Music

The commercial music major is designed to give students a two-year background in professional and commercial music concepts and practices with an emphasis on theory and vocational performance potential. Successful completion of the program as shown, along with the General Education requirements, may also enable students to transfer as music majors to a California State University.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSIC 3B</td>
<td>Musicianship</td>
<td>4</td>
</tr>
<tr>
<td>MUSIC 12</td>
<td>Electronic Music (may be repeated; see below)</td>
<td>3</td>
</tr>
<tr>
<td>MUSIC 14</td>
<td>Introduction to the Music Business</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 51A*</td>
<td>Beginning Class Piano</td>
<td>1</td>
</tr>
<tr>
<td>MUSIC 51B*</td>
<td>Beginning Class Piano</td>
<td>1</td>
</tr>
<tr>
<td>MUSIC 70A</td>
<td>Harmony and Intermediate Musicianship</td>
<td>3</td>
</tr>
</tbody>
</table>

*Students may be exempt from the MUSIC 51 series upon passing a proficiency exam.

Plus five units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSIC 2A</td>
<td>Music History and Literature</td>
<td>3</td>
</tr>
<tr>
<td>MUSIC 2B</td>
<td>Music History and Literature</td>
<td>3</td>
</tr>
<tr>
<td>MUSIC 4</td>
<td>Music Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>MUSIC 11</td>
<td>Record Production</td>
<td>1.5</td>
</tr>
<tr>
<td>MUSIC 12</td>
<td>Electronic Music</td>
<td>3</td>
</tr>
<tr>
<td>MUSIC 21</td>
<td>History of Jazz</td>
<td>3</td>
</tr>
<tr>
<td>MUSIC 22</td>
<td>History and Survey of Rock Music</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus two units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSIC 30</td>
<td>Elementary Class Voice (may be repeated)</td>
<td>1</td>
</tr>
<tr>
<td>MUSIC 40</td>
<td>Beginning Guitar (may be repeated)</td>
<td>1</td>
</tr>
<tr>
<td>MUSIC 41</td>
<td>Intermediate Guitar (may be repeated)</td>
<td>1</td>
</tr>
<tr>
<td>MUSIC 52</td>
<td>Intermediate Piano (two times)</td>
<td>1</td>
</tr>
<tr>
<td>MUSIC 53</td>
<td>Studio Piano</td>
<td>1</td>
</tr>
</tbody>
</table>

Plus 5.5 units from the following (courses may be repeated):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSIC 32</td>
<td>Concert Choir</td>
<td>2</td>
</tr>
<tr>
<td>MUSIC 33</td>
<td>Concert Ensemble Singers</td>
<td>1.5</td>
</tr>
<tr>
<td>MUSIC 60</td>
<td>Jazz Band</td>
<td>1.5</td>
</tr>
<tr>
<td>MUSIC 62A</td>
<td>Beginning Community Concert Band</td>
<td>1.5</td>
</tr>
<tr>
<td>MUSIC 62B</td>
<td>Intermediate Community Concert Band</td>
<td>1.5</td>
</tr>
<tr>
<td>MUSIC 62C</td>
<td>Advanced Community Concert Band</td>
<td>1.5</td>
</tr>
<tr>
<td>MUSIC 67</td>
<td>Latin Jazz Band</td>
<td>1.5</td>
</tr>
<tr>
<td>MUSIC 68</td>
<td>Mariachi Band</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Total units for the major: 24.5-26.5

Required General Education course:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSIC 3A</td>
<td>Musicianship</td>
<td>4</td>
</tr>
</tbody>
</table>

Nursing

Chaffey College offers a career ladder path in Nursing where students can start with the Nursing Assistant program and follow the ladder to earn their Vocational Nursing Certificate and then may choose to proceed to the Associate Degree in Nursing program. Students may also choose not to follow the career ladder, but meet the program requirements for the Vocational Nursing or Associate Degree Nursing programs. While students are not required to follow the career format, they must meet the entrance requirements for each program before applying to that program.

NURSING ASSISTANT

The Nursing Assistant (NA) program prepares students for entry-level employment in health care facilities. Nursing Assistants are important members of the health care team, providing direct care to patients in long-term care settings. All Nursing Assistants function under the supervision of a Licensed Nurse. Programs are approved by the California Department of Health Services. Upon completion of the Nursing Assistant program, the student is eligible to take the state examination for Certified Nurse Assistant (CNA) for a fee. The CNA may then complete courses for certification in Home Health Aide (HHA) and/or Acute Care Technician (ACT).

The application process for the NA program is as follows:
1. Attend a mandatory information meeting to obtain the application packet.
2. Submit application to Chaffey College and to the Nursing Assistant Program.
3. Submit background check verification to the Department of Health Services and the Health Sciences Office.

Enrollment in the NA program is subject to completion of the following requirements:
1. Admission to Chaffey College.
2. Completion of prerequisites for each program before applying to that program.
3. Evidence of satisfactory physical and emotional health as determined by health examination.
4. Current cardiopulmonary resuscitation (CPR) certification as an American Heart Association Healthcare Provider. The CPR card must be updated annually. Details about times and locations of CPR classes are provided at mandatory information meetings.
5. Submission of health form, laboratory results, and appropriate CPR card at the mandatory orientation meeting. Details provided at the information meeting.
6. The student must be at least 16 years of age.

Requirements for the Chaffey College NA Certificate (Non-transcripted):  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURAST 400</td>
<td>Nursing Assistant</td>
<td>3.5</td>
</tr>
<tr>
<td>NURAST 400L</td>
<td>Nursing Assistant Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>NURAST 405</td>
<td>Nursing Assistant Skills Laboratory</td>
<td>0.5</td>
</tr>
<tr>
<td>NURAST 450</td>
<td>Professional Development for the Nursing Assistant</td>
<td>1</td>
</tr>
</tbody>
</table>

Total units for the Chaffey College certificate: 7

HOME HEALTH AIDE

To enter the Home Health Aide (HHA) program, the student must have an active California State Certified Nursing Assistant (CNA) certificate. The Home Health Aide program is a state certified add-on certificate to the CNA certificate that prepares students for entry level positions with home health agencies. The Home Health Aide courses prepare the CNA to provide care independently in the patient’s home or in assisted living, independent living, and hospice environments.

The application process for the HHA program is as follows:
1. Attend a mandatory information meeting to obtain the application packet.
2. Submit application to Chaffey College and to the Nursing Assistant Program.
3. Submit application to the Department of Health Services and verification to the Health Sciences Office.
Enrollment in the HHA program is subject to completion of the following requirements:

1. Admission to Chaffey College.
2. Evidence of satisfactory physical and emotional health as determined by health examination.
3. Current cardiopulmonary resuscitation (CPR) certification as an American Heart Association Healthcare Provider. The CPR card must be updated annually. Details about times and locations of classes provided at mandatory information meetings.
4. Submission of health form and appropriate CPR card before the first day of class.
5. Submit a copy of the state CNA certification prior to enrolling in NURAST 420/420L (Home Health Aide courses).

Requirements for the Chaffey College NA/HHA Certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURAST 400*</td>
<td>3.5</td>
</tr>
<tr>
<td>NURAST 400L*</td>
<td>2</td>
</tr>
<tr>
<td>NURAST 405*</td>
<td>0.5</td>
</tr>
<tr>
<td>NURAST 420</td>
<td>1.5</td>
</tr>
<tr>
<td>NURAST 420L</td>
<td>1</td>
</tr>
<tr>
<td>NURAST 450*</td>
<td>1</td>
</tr>
</tbody>
</table>

Total units for the Chaffey College certificate: 2.5-9.5

*Students must take these four NURAST classes or equivalent, or provide proof of a current California State Certified Nursing Assistant Certificate.

Requirements for the Chaffey College NA/ACT Certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURACT 420</td>
<td>4</td>
</tr>
<tr>
<td>NURACT 420L</td>
<td>2</td>
</tr>
<tr>
<td>NURACT 450</td>
<td>1</td>
</tr>
<tr>
<td>NURACT 400*</td>
<td>3.5</td>
</tr>
<tr>
<td>NURACT 400L*</td>
<td>2</td>
</tr>
<tr>
<td>NURACT 405*</td>
<td>0.5</td>
</tr>
<tr>
<td>NURACT 450*</td>
<td>1</td>
</tr>
</tbody>
</table>

Total units for the Chaffey College certificate: 7-14

NURSING: VOCATIONAL

The Vocational Nurse is a caregiver in acute and extended care facilities. In addition, VN’s are employed in home health care, emergency clinics, and as reviewers of health care utilization.

The Vocational Nursing (VN) program is accredited by the State of California Board of Vocational Nursing and Psychiatric Technicians (BVNPT). Upon completion of the program, students are eligible to apply to take the Board of Vocational Nursing and Psychiatric Technicians’ licensing examination to practice in the State of California as a Licensed Vocational Nurse.

The VN program is three semesters in length and begins each fall and spring semester. The program consists of lecture and laboratory instruction in actual nursing situations.

Applicants with a record of any felony are subject to review by the Board of Vocational Nurse and Psychiatric Technician Examiners (BVNPTE) before a license can be granted. Contact the BVNPTE prior to submitting an application to the VN program to clarify eligibility for licensure upon completing the program for a fee.

Enrollment in the VN program is subject to completion of the following requirements:

1. Admission to Chaffey College.
2. Be a high school graduate, or have passed the GED, or have passed the High School Proficiency Examination, or have an associates degree or higher.
3. Provide official transcripts from other colleges attended. International transcripts (high school and college) require AERC, IERF, or other approved agency evaluation.
4. Evidence of satisfactory physical and emotional health as determined by health examination and proof of immunizations.
5. Completion of Nursing: Vocational 401 with a minimum grade of “C”.
6. Completion of Mathematics 401 or equivalent with a minimum grade of “C”.
7. Completion of Biology 424 (or Biology 20 and 22) or equivalent with a minimum grade of “C”. Biology course(s) may not be over 5 years old at the time of application to the VN Program.
8. Current cardiopulmonary resuscitation (CPR) certification as an American Heart Association Healthcare Provider. The CPR card must be updated annually. Details about times and locations of CPR classes provided at mandatory information meetings.
9. Current status as a California Certified Nursing Assistant, or completion of Nursing Assistant 400, 400L, 405, and 450 with minimum grades of C or P.
The application process for the VN program is as follows:
1. Attend a mandatory information meeting to obtain application information.
2. Make an appointment with a counselor in the Counseling Center.
3. Verification of high school graduation or equivalent or higher as indicated above.
4. Demonstrate eligibility for English 450 via the Chaffey assessment process, or completion of English 550 or equivalent with a minimum grade of C.
5. Provide official copies of all previous college transcripts (must be on file).
6. Complete the VN application and submit. Applications for the VN program beginning Spring 2010 will be available October 1 and must be completed and submitted by October 30. Applications for the VN program beginning Fall 2010 will be available March 1 and must be completed and submitted by March 31.
7. All selected applicants must attend a mandatory orientation session.

Notes:
1. The selection process is based on completion of prerequisite courses and available space.
2. In order to continue in the program, students must earn a minimum grade of C in all program courses.
3. All required VN courses must be completed within five years. For students transferring to the VN program from another program, transferred VN courses may not be over five years old. (Subject competency may be demonstrated by an examination.)
4. The college does not provide transportation to clinical facilities.

To obtain an Associate's Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURV 403</td>
<td>Fundamentals of Nursing</td>
<td>3</td>
</tr>
<tr>
<td>NURV 403L</td>
<td>Fundamentals of Nursing Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>NURV 405</td>
<td>Beginning Medical-Surgical Nursing</td>
<td>4</td>
</tr>
<tr>
<td>NURV 405L</td>
<td>Beginning Medical-Surgical Nursing Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>NURV 407</td>
<td>Nursing Skills/Clinical Simulation Laboratory</td>
<td>1-1-1</td>
</tr>
<tr>
<td></td>
<td>(taken 3 times; once each semester)</td>
<td></td>
</tr>
<tr>
<td>NURV-409</td>
<td>Intermediate Medical-Surgical Nursing</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Intermediate Medical-Surgical Nursing Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>NURV 411</td>
<td>Advanced Medical-Surgical Nursing</td>
<td>7</td>
</tr>
<tr>
<td>NURV 411L</td>
<td>Advanced Medical-Surgical Nursing Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>NURV 413</td>
<td>Leadership for the Vocational Nurse</td>
<td>3</td>
</tr>
<tr>
<td>NURV 413L</td>
<td>Leadership for the Vocational Nurse Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>NURV 415A</td>
<td>Growth/Development Psychology Adult-Geriatric</td>
<td>1</td>
</tr>
<tr>
<td>NURV 415B</td>
<td>Growth and Development of the Child</td>
<td>1</td>
</tr>
<tr>
<td>NURV 417A</td>
<td>Critical Thinking and the Nursing Process I</td>
<td>1</td>
</tr>
<tr>
<td>NURV 417B</td>
<td>Critical Thinking and the Nursing Process II</td>
<td>1</td>
</tr>
<tr>
<td>NURV 421</td>
<td>Maternal and Child Health Nursing</td>
<td>4</td>
</tr>
<tr>
<td>NURV 421L</td>
<td>Maternal and Child Health Nursing Laboratory</td>
<td>2</td>
</tr>
</tbody>
</table>

Total units for the major: 47

Required prerequisite courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 424 *</td>
<td>Anatomy and Physiology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(or BIOL 20 *, Human Anatomy, 4 and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL 22 *, Human Physiology, 4)</td>
<td></td>
</tr>
<tr>
<td>MATH 401</td>
<td>Mathematics for Health Science</td>
<td>1</td>
</tr>
<tr>
<td>NURAST 400**</td>
<td>Nursing Assistant</td>
<td>3.5</td>
</tr>
<tr>
<td>NURAST 400L*</td>
<td>Nursing Assistant Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>NURAST 405**</td>
<td>Nursing Assistant Skills Laboratory</td>
<td>0.5</td>
</tr>
<tr>
<td>NURAST 450**</td>
<td>Professional Development for the Nursing Assistant</td>
<td>1</td>
</tr>
<tr>
<td>NURVN 401*</td>
<td>Foundations of Vocational Nursing Practice</td>
<td>2</td>
</tr>
</tbody>
</table>

* Students must be within the previous 5 years.
** Students must take the four NURAST classes above or provide proof of a current California State Nursing Assistant Certificate.

Requirements for the Nursing: Vocational (VN) Certificate:

Same as the major requirements for the A.S. Degree and required prerequisite courses above.

Total units for the certificate: 53-65

Vocational Nursing Advanced Placement

Contact the VN program coordinator for evaluation of nursing course work. Transfer students must meet all prerequisites for the VN program.

NURSING: ASSOCIATE DEGREE

This program, leading to an Associate in Science Degree with a major in Nursing, is approved by the California Board of Registered Nursing and accredited by the National League for Nursing Accrediting Commission (61 Broadway - 33rd Floor, New York City, New York, 10006, 1-800-669-1656, ext. 153, or website: www.nlnac.org). The graduate is eligible to take the National Council for Licensure Examination (NCLEX) and, upon successful completion, become licensed as a Registered Nurse in the state of California. There are fees for obtaining licensure by examination or endorsement, interim permit, and biennial renewal. California law allows for the denial of registered nursing licensure on the basis of any prior convictions substantially related to nursing practice. See the California Board of Registered Nursing website at http://www.bn.ca.gov/c/pdf/exam_app_2004.pdf for further information.

The curriculum is based upon the humanistic philosophy of Abraham Maslow. Nursing assists the individual and family in preventing or coping with threats to the individual's basic needs throughout the life cycle. Faculty believe learning is facilitated when students are actively involved in the learning process and assume responsibility for their own learning.

Information about the program prerequisites – those requirements that must be completed prior to applying to the ADN program – can be obtained from our website, the Counseling Department, the ADN office, or from attending an ADN information session offered the first Thursday of every month. To access the ADN website, go to www.chaffey.edu, click on Instruction, Instructional Programs, Nursing: ADN. The listed criteria is subject to change.

Once a student is ready to apply, he or she must pick up the ADN Application Instructions for Beginning or Advanced Placement students in the Counseling Department, ADN office, or on the website. Six to eight weeks should be allowed for obtaining the information needed in these instructions, prior to the application period. Application forms for admission to the ADN program are available online at www.chaffey.edu and must be submitted from October 1-31 or April 1-30. Should there be more qualified applicants than spaces available students must reapply the next semester. Only coursework completed prior to application to the ADN program will be considered in the selection process.
Programs of Study

Applicants to the ADN program must meet the following requirements:

1. Graduation from a Vocational Nursing Program with an active vocational nursing license.
2. Completion of NURADN 3 and NURADN 3L with a minimum grade of C.
3. Fulfillment of application requirements under Nursing: ADN in this section of the catalog. See "Applicants to the ADN program must meet the following requirements."

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURADN 34 **</td>
<td>Nursing Process III</td>
<td>4</td>
</tr>
<tr>
<td>NURADN 34L **</td>
<td>Nursing Process III Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>NURADN 38 **</td>
<td>Family and Child Nursing</td>
<td>2</td>
</tr>
<tr>
<td>NURADN 38L **</td>
<td>Family and Child Nursing Laboratory</td>
<td>1.5</td>
</tr>
<tr>
<td>NURADN 44 **</td>
<td>Nursing Process IV</td>
<td>4.5</td>
</tr>
<tr>
<td>NURADN 44L **</td>
<td>Nursing Process IV Laboratory</td>
<td>5</td>
</tr>
<tr>
<td>NURADN 50 **</td>
<td>Professional Issues in Nursing</td>
<td>1</td>
</tr>
</tbody>
</table>

Total units for the major: 41.5

* Prerequisite Courses

** Must be admitted to the ADN program before taking course.

Courses are taken in numerical sequence.

ADN Advanced Placement

Prospective students who have prior nursing education or experience in health care may request advanced placement, which will be honored depending on available space in the nursing program. Students in this category include Licensed Vocational Nurses or those transferring from another nursing program. In order to continue in the ADN program, advanced placement students must earn a minimum grade of C in all nursing and other required courses.

VN to RN: Degree Option

Acceptance into this program is based on the following criteria:

1. Graduation from a Vocational Nursing Program with an active vocational nursing license.
2. Completion of NURADN 3 and NURADN 3L with a minimum grade of C.
3. Fulfillment of application requirements under Nursing: ADN in this section of the catalog. See "Applicants to the ADN program must meet the following requirements."

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the VN to RN Associate in Science Degree option:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURADN 3</td>
<td>Transition in Nursing</td>
<td>1.5</td>
</tr>
<tr>
<td>NURADN 3L</td>
<td>Transition in Nursing Laboratory</td>
<td>0.5</td>
</tr>
<tr>
<td>NURADN 13</td>
<td>Mental Health and Psychiatric Nursing</td>
<td>2</td>
</tr>
<tr>
<td>NURADN 13L</td>
<td>Mental Health and Psychiatric Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>NURADN 34</td>
<td>Nursing Process III</td>
<td>4</td>
</tr>
<tr>
<td>NURADN 34L</td>
<td>Nursing Process III Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>NURADN 44</td>
<td>Nursing Process IV</td>
<td>4.5</td>
</tr>
<tr>
<td>NURADN 44L</td>
<td>Nursing Process IV Laboratory</td>
<td>5</td>
</tr>
<tr>
<td>NURADN 50</td>
<td>Professional Issues in Nursing</td>
<td>1</td>
</tr>
</tbody>
</table>

Total units for the major: 22.5

See also required General Education and additional courses listed for Nursing: ADN.

VN to RN: Non-Degree Option

Students completing this program are eligible to apply to take the NCLEX for licensure as a Registered Nurse. The student who elects to take this program is not recognized as a graduate of an accredited ADN program, is not recognized as a Chaffey College ADN graduate, and may not qualify for licensure by endorsement in another state.

Acceptance into this program is based on the following criteria:

1. Graduation from a Vocational Nursing Program with an active vocational nursing license.
2. Completion of NURADN 3 and NURADN 3L with a minimum grade of C.
3. Fulfillment of application requirements 1 and 2 under Nursing: ADN in this section of the catalog.
4. Physiology and Microbiology must be completed at the time of application.
### Nutrition and Food

The Nutrition and Food major is designed for students training in the field of health and wellness based on nutrition and fitness as a lifestyle. The certificate qualifies students for entry-level positions in health spas, retirement and convalescent homes, counseling centers, and youth day care camps.

To obtain an Associate's Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

#### Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 14</td>
<td>Health Science</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 424</td>
<td>Anatomy and Physiology</td>
<td>3</td>
</tr>
<tr>
<td>GERO 404</td>
<td>Health and Wellness for Older Adults</td>
<td>3</td>
</tr>
<tr>
<td>NF 5</td>
<td>Nutrition for Life</td>
<td>3</td>
</tr>
<tr>
<td>(or NF 15,</td>
<td>Nutrition I: The Science of Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>NF 21</td>
<td>Diet and Fitness</td>
<td>3</td>
</tr>
<tr>
<td>(also available as PELEC 15)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NF 27</td>
<td>Healthy Cooking</td>
<td>2</td>
</tr>
<tr>
<td>PELEC 17</td>
<td>Advanced First Aid and Emergency Response</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the major: **20**

#### Required General Education Course:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMSTD 8</td>
<td>Fundamentals of Speech Communication</td>
</tr>
</tbody>
</table>

#### Requirements for the Nutrition and Food Certificate:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 14</td>
<td>Health Science</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 424</td>
<td>Anatomy and Physiology</td>
<td>3</td>
</tr>
<tr>
<td>GERO 404</td>
<td>Health and Wellness for Older Adults</td>
<td>3</td>
</tr>
<tr>
<td>NF 5</td>
<td>Nutrition for Life</td>
<td>3</td>
</tr>
<tr>
<td>(or NF 15, Nutrition I: The Science of Nutrition)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NF 21</td>
<td>Diet and Fitness</td>
<td>3</td>
</tr>
<tr>
<td>(also available as PELEC 15)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NF 27</td>
<td>Healthy Cooking</td>
<td>2</td>
</tr>
<tr>
<td>PELEC 17</td>
<td>Advanced First Aid and Emergency Response</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate: **23**

### Pharmacy Technician

This occupational program prepares students for work as Pharmacy Technicians. The program provides both the technical and practical training that enables the technician, upon licensure, to function as a competent entry-level assistant to the pharmacist. Pharmacy Technicians may be employed in hospitals, community pharmacies, home health care settings, and government agencies. Program curriculum consists of lecture and laboratory instruction in both simulated and supervised clinical environments.

Upon successful completion of the Pharmacy Technician (PT) program, students are qualified to apply to the California State Board of Pharmacy for registration; registration is a legal requirement for work in California as a pharmacy technician. California law also allows for the denial of certification on the basis of any prior criminal convictions substantially related to pharmaceutical practice.

#### Enrollment in the PT program is subject to completion of the following requirements:

1. Admission to Chaffey College.
2. High school graduation, pass the GED test, or pass the High School Proficiency examination, or have associates degree or higher. International transcripts must have AERC, IERF or approved agency evaluation.
3. Eligibility for ENGL 450 or ESL 450 and eligibility for Math 520.

#### Notes:

A. The college does not provide transportation to clinical facilities.
B. Students must demonstrate satisfactory physical and emotional health, as determined by health examination and proof of immunizations.
C. Students must possess current cardiopulmonary resuscitation (CPR) certification as an American Heart Association Healthcare Provider. The CPR card must be updated annually. Details about times and locations of CPR classes is provided at information meetings.
To continue in the Pharmacy Technician program, students must earn satisfactory grades (minimum of "C" in graded courses; "CR" in pass/fail courses) in all Pharmacy Technician and other required courses.

Students with prior pharmacy technician education should contact the Pharmacy Technician Program at 909/652-6675.

To obtain an Associate Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

PHIL 82 Introduction to Monotheistic Religions: 3
PHIL 81 Introduction to Religion 3
PHIL 80 Introduction to Philosophy 3
PHIL 78 History of Philosophy: Modern 3
PHIL 77 History of Philosophy: Ancient to Medieval 3
PHIL 76 Critical Thinking 3
PHIL 72 Seminar in Ethics 3
PHIL 482 Clinical Externship 4

Total units for the major 24

To obtain an Associate's Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Arts Degree:

PHIL 72 Seminar in Ethics 3
PHIL 76 Critical Thinking 3
PHIL 77 History of Philosophy: Ancient to Medieval 3
PHIL 78 History of Philosophy: Modern 3
HUMAN 20 The Holocaust: History and Philosophy 3

Total units for the major 24

Major requirements for the Associate in Science Degree:

PHIL 82 Introduction to Monotheistic Religions: 3
PHIL 81 Introduction to Religion 3
PHIL 80 Introduction to Philosophy 3
PHIL 78 History of Philosophy: Modern 3
PHIL 77 History of Philosophy: Ancient to Medieval 3
PHIL 76 Critical Thinking 3
PHIL 72 Seminar in Ethics 3
PHIL 482 Clinical Externship 4

Total units for the major 24

PHILOSOPHY

Philosophy is thinking critically and rationally about human problems of knowledge, existence, conduct, art, and religion. Students explore the great ideas of Western and Eastern heritage and encounter fundamentals of almost all other disciplines. The philosophy curriculum contributes toward a broad, general education in the liberal arts, the goal of which means a liberating of one’s mind, to free oneself from conventional opinions of one’s time and place.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Arts Degree:

PHIL 72 Seminar in Ethics 3
PHIL 76 Critical Thinking 3
PHIL 77 History of Philosophy: Ancient to Medieval 3
PHIL 78 History of Philosophy: Modern 3

Total units for the major 24

Required General Education courses:

ART 1 Contemporary Art: 1950 - Present 3
(ART 1, 2, 5, 6, 9, 10)
ART 10 Fundamentals of Design in Two Dimensions 4

PHOTOGRAPHY

The Photography program emphasizes using photography as a creative medium for communicating through visual images. Students may take photography courses as electives, as part of an occupational certificate, or for an A.A. degree in photography.

To obtain an Associate's Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Arts Degree:

PHOTO 1 History of Photography 3
PHOTO 10* Beginning Photography 4
(Or PHOTO 7, Introduction to Digital Photography)
PHOTO 11* Intermediate Photography 4
(Or PHOTO 9, Digital Imaging)
PHOTO 12 Studio Lighting 4
PHOTO 13 Fine Art Photography 4
PHOTO 20 Photography for Publications 4
PHOTO 50* Introduction to Color Photography 4

Total units for the major 27

(ART 1, 2, 5, 6, 9, 10)
Requirements for the Still Photography Certificate:

**Units**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 45 Small Business Ownership and Management</td>
<td>3</td>
</tr>
<tr>
<td>PHOTO 1 History of Photography</td>
<td>3</td>
</tr>
<tr>
<td>PHOTO 10* Beginning Photography (or PHOTO 7, Introduction to Digital Photography)</td>
<td>4</td>
</tr>
<tr>
<td>PHOTO 11* Intermediate Photography (or PHOTO 9, Digital Imaging)</td>
<td>4</td>
</tr>
<tr>
<td>PHOTO 12 Studio Lighting</td>
<td>4</td>
</tr>
<tr>
<td>PHOTO 13 Fine Art Photography</td>
<td>4</td>
</tr>
<tr>
<td>PHOTO 20 Photography for Publications</td>
<td>4</td>
</tr>
<tr>
<td>PHOTO 21 Public Relations and Communications Photography</td>
<td>2</td>
</tr>
<tr>
<td>PHOTO 50* Introduction to Color Photography</td>
<td>2</td>
</tr>
<tr>
<td>PHOTO 422 Wedding Photography</td>
<td>2</td>
</tr>
</tbody>
</table>

**Plus one course from the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 10 Fundamentals of Design in Two Dimensions</td>
<td>4</td>
</tr>
<tr>
<td>ART 63 Introduction to Graphic Design</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total units for the certificate**: 38

**Recommended:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 5 Art History of Western World: 1400 - Contemporary</td>
<td>3</td>
</tr>
<tr>
<td>ART 8 Contemporary Media, Art and Visual Language</td>
<td>3</td>
</tr>
<tr>
<td>ART 83 Internet and Web Design</td>
<td>4</td>
</tr>
<tr>
<td>ART 480 Portfolio and Presentation</td>
<td>3</td>
</tr>
<tr>
<td>COMSTD 8 Fundamentals of Speech Communication</td>
<td>4</td>
</tr>
<tr>
<td>JOUR 10 Newswriting</td>
<td>3</td>
</tr>
</tbody>
</table>

*PHOTO 10 must be taken before PHOTO 11 and PHOTO 50.

### PHYSICAL EDUCATION

Physical Education provides basic courses to prepare students for continued study; consideration has been given to transfer requirements of local colleges and universities.

To obtain an Associate's Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

**Major requirements for the Associate in Arts Degree:**

**Units**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 14 Health Science</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 20 Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 22 Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>NF 5 Nutrition for Life (or NF 15, Nutrition: The Science of Nutrition)</td>
<td>3</td>
</tr>
<tr>
<td>PELEC 15 Diet and Fitness</td>
<td>3</td>
</tr>
<tr>
<td>PELEC 16 First Aid (or PELEC 17, Advanced First Aid and Emergency Response)</td>
<td>3</td>
</tr>
<tr>
<td>PELEC 18 Introduction to Physical Education</td>
<td>3</td>
</tr>
</tbody>
</table>

**Plus three units from the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PETEAM 1A 1B, 2, 3, 4, 5, 6, 7, 9, 11, 12, 13, 14, 15, 21A, 21B, 22, 23, 24, 25, 26, 27, 29, 31, 32, 33, 34, 35</td>
<td>3</td>
</tr>
</tbody>
</table>

**Plus six units from the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PELEC 2 6, 9, 11, 12, 13, 14, 413</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total units for the major**: 32

### Coaching

The Coaching Certificate prepares students for employment as walk-on head coaches, and is also for those individuals interested in pursuing coaching as a career.

**Requirements for the Coaching Certificate:**

**Units**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PELEC 2 Introduction to Athletic Training</td>
<td>3</td>
</tr>
<tr>
<td>PELEC 12 Principles and Practices of Officiating Team Sports</td>
<td>3</td>
</tr>
<tr>
<td>PELEC 13 Professional Activities: Coaching Team Sports</td>
<td>3</td>
</tr>
<tr>
<td>PELEC 15 Diet and Fitness</td>
<td>3</td>
</tr>
<tr>
<td>PELEC 16 First Aid (or PELEC 17, Advanced First Aid and Emergency Response)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total units for the certificate**: 18

### PHYSICAL SCIENCE

Physical Science is the study of the natural sciences encompassing non-living systems although aspects of living systems are also studied. Scientific issues are presented and discussed in the physical science courses enabling a deeper understanding of societal issues that require thoughtful decisions and interaction. Physical Science courses enrich the general education program and fundamentally support further education to prepare for scientific, technological, and engineering careers. The selection of courses will assist in the selection of an upper-division science major. For non-transfer students, this area of emphasis will assist in the preparation for employment at the level of technician.

**Requirements for the Associate in Arts Degree:**

**Units**

<table>
<thead>
<tr>
<th>Area</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. General Education</strong></td>
<td>23-39</td>
</tr>
<tr>
<td>Choose either Chaffey College’s General Education, California State University General Education (CSU-GE), or Intersegmental General Education Transfer Curriculum (IGETC) for the general education pattern related to your goal. Students who intend to transfer should complete the CSU-GE or IGETC pattern. Consult with a counselor to determine which general education pattern is the best choice for the college/university you plan to attend.</td>
<td></td>
</tr>
<tr>
<td><strong>B. Area of Emphasis</strong></td>
<td>18</td>
</tr>
<tr>
<td>Eighteen units selected from at least three of the listed subject areas. No more than eight units from any single subject area may be counted toward the major. A minimum of two courses with an associated laboratory in addition to the laboratory required for the general education requirements in the Natural Science category. A minimum of Trigonometry (MATH 31) is required.</td>
<td></td>
</tr>
<tr>
<td><strong>C. Electives</strong></td>
<td>3-19</td>
</tr>
<tr>
<td>Elective units may be necessary to reach the total of 60 overall units required for the Associate Degree. If you are planning to transfer, elective units must be transferable to CSU and/or UC.</td>
<td></td>
</tr>
</tbody>
</table>

**Area of Emphasis**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomy 25 or 35, 26 or 36</td>
<td></td>
</tr>
<tr>
<td>Chemistry 21, and 21L1, and 21L2, 22 and 22L1, and 22L2, 70, 75A, 75B</td>
<td></td>
</tr>
<tr>
<td>Computer Science 1, 21</td>
<td></td>
</tr>
<tr>
<td>Earth Science 1, 1L, 5, 5L, 8</td>
<td></td>
</tr>
<tr>
<td>Engineering 11, 26, 30, 34, 50, 60, 70</td>
<td></td>
</tr>
<tr>
<td>Geographic Information Systems 1, 1A, 1B, 2</td>
<td></td>
</tr>
<tr>
<td>Geography 4, 5</td>
<td></td>
</tr>
<tr>
<td>Geology 1, 2, 6, 10, 20 30, 30T, 70, 76A, 75B, 80, 85</td>
<td></td>
</tr>
<tr>
<td>Mathematics 31, 61, 65A, 65B, 75, 81, 85</td>
<td></td>
</tr>
<tr>
<td>Physics 20A or 30A, 20B or 30B, 44, 45, 46, 47</td>
<td></td>
</tr>
<tr>
<td>Statistics 10</td>
<td></td>
</tr>
</tbody>
</table>

**Total units for the degree**: 60

**Note:** Courses included in the area of emphasis cannot be used to fulfill General Education requirements.
PHYSICS
The Physics curriculum provides students a basis for understanding the physical concepts and skills required for attainment of upper division status in a four year college or university. It also provides many of the prerequisite courses for engineering majors.

To obtain an Associate's Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>CHEM 21 General Chemistry</td>
</tr>
<tr>
<td>1</td>
<td>CHEM 21L1 General Chemistry Lab I</td>
</tr>
<tr>
<td>1</td>
<td>CHEM 21L2 General Chemistry Lab I</td>
</tr>
<tr>
<td>3</td>
<td>CHEM 22 General Chemistry</td>
</tr>
<tr>
<td>1</td>
<td>CHEM 22L1 General Chemistry Lab II</td>
</tr>
<tr>
<td>1</td>
<td>CHEM 22L2 General Chemistry Lab II</td>
</tr>
<tr>
<td>4</td>
<td>MATH 65A Calculus I</td>
</tr>
<tr>
<td>4</td>
<td>MATH 65B Calculus II</td>
</tr>
<tr>
<td>5</td>
<td>MATH 75 Calculus III</td>
</tr>
<tr>
<td>4</td>
<td>MATH 85 Differential Equations</td>
</tr>
<tr>
<td>5</td>
<td>PHYS 45 Physics for Scientists and Engineers I</td>
</tr>
<tr>
<td>5</td>
<td>PHYS 46 Physics for Scientists and Engineers II</td>
</tr>
<tr>
<td>5</td>
<td>PHYS 47 Physics for Scientists and Engineers III</td>
</tr>
</tbody>
</table>

Total units for the major: 42

Required General Education course:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>PHYS 44 Introduction to Motion</td>
</tr>
</tbody>
</table>

POLITICAL SCIENCE
Political Science, the study of politics and government, examines ways and means by which societies identify and solve problems. The exercise of power in decision-making processes and its effect on societal resources is explored and weighed. Political values and beliefs are determined and evaluated for further depth of understanding. Political Science courses enrich the general education program and fundamentally support preparation for careers in teaching, the law, government service, city management, journalism, business, and international affairs.

To obtain an Associate's Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Arts Degree:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>PS 1 American Politics</td>
</tr>
<tr>
<td>3</td>
<td>PS 2 Introduction to Political Science</td>
</tr>
<tr>
<td>3</td>
<td>PS 3 California Politics and Culture</td>
</tr>
<tr>
<td>3</td>
<td>PS 10 Comparative Politics</td>
</tr>
</tbody>
</table>

Plus six units from the following:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>PS 4 Political Theory</td>
</tr>
<tr>
<td>3</td>
<td>PS 7 International Relations</td>
</tr>
<tr>
<td>3</td>
<td>PS 21 Urban Politics</td>
</tr>
<tr>
<td>3</td>
<td>PS 25 Latino Politics</td>
</tr>
<tr>
<td>3</td>
<td>PS 32 Law and Society</td>
</tr>
</tbody>
</table>

PSYCHOLOGY
The Psychology program is for associate degree and transfer students who wish to major or minor in psychology or related fields. Courses are designed to provide students with greater understanding of the behavior of living organisms as individuals and groups.

To obtain an Associate's Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Arts Degree:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>PSYCH 1 Introduction to Psychology</td>
</tr>
<tr>
<td>3</td>
<td>PSYCH 5 Personal and Social Awareness</td>
</tr>
<tr>
<td>4</td>
<td>PSYCH 80 Research Methods in Psychology</td>
</tr>
<tr>
<td>3</td>
<td>SCSCI 10 Statistics for Social Science</td>
</tr>
</tbody>
</table>

Plus nine units from the following or from approved special topics*:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>PSYCH 20 Developmental Psychology: Childhood and Adolescence</td>
</tr>
<tr>
<td>3</td>
<td>PSYCH 21 Developmental Psychology: Adulthood and Aging</td>
</tr>
<tr>
<td>3</td>
<td>PSYCH 25 Developmental Psychology: Lifespan Development</td>
</tr>
<tr>
<td>3</td>
<td>PSYCH 41 Biological Psychology</td>
</tr>
<tr>
<td>3</td>
<td>PSYCH 45 Psychoactive Drugs: The Chemistry of Consciousness</td>
</tr>
<tr>
<td>3</td>
<td>PSYCH 55 Abnormal Psychology</td>
</tr>
<tr>
<td>3</td>
<td>PSYCH 65 Social Psychology</td>
</tr>
<tr>
<td>3</td>
<td>PSYCH 430 Health Psychology</td>
</tr>
<tr>
<td>3</td>
<td>SCSCI 17 Human Sexuality</td>
</tr>
</tbody>
</table>

Total units for the major: 23

Required General Education courses:

<table>
<thead>
<tr>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ENGL 1A Composition</td>
</tr>
<tr>
<td>3</td>
<td>ENGL 1B Advanced Composition and Critical Thinking (or PHIL 76, Critical Thinking)</td>
</tr>
</tbody>
</table>

* A maximum of six units of special topics (PSYCH 92A-H) may be taken to fulfill this requirement with prior approval of the school dean or designee. At least two different special topics must be completed.

** A maximum of two of the Developmental Psychology Series may be taken to fulfill this requirement.
RADIOLOGIC TECHNOLOGY

The Radiologic Technology program leads to an Associate in Science degree. Training includes operation of digital and conventional x-ray equipment, exposing and processing images, utilizing radiation protection practices, positioning patients, and patient care. Concurrent clinical training is conducted in hospitals affiliated with Chaffey College. The Radiologic Technology program is accredited by the State of California and the Joint Review Committee on Education in Radiologic Technology, (JRCERT; www.jrcert.org). Upon successful completion, graduates earn Diagnostic Radiologic Technology and Radiologic Technologist Fluoroscopy Permit certificates and are eligible to become licensed as Radiologic Technologists. There are fees for obtaining licensure by examination and certification. The national certification examination and the State of California Certified Radiologic Technologist and Fluoroscopy Permit examinations are administered by the American Registry of Radiologic Technologists (ARRT; www.arrt.org). There are application fees for certification with the State of California (CRT). The program articulates with the California State University Northridge Radiologic Technology program for the bachelor’s degree.

The special application form for admission to the RT program is available in the Counseling Department or online at www.chaffey.edu/radtec and must be submitted during the month of February for classes beginning the following August. Information about the requirements that must be completed prior to applying to the Radiologic Technology program must be obtained from the RT website or from the Counseling Department. Go to www.chaffey.edu/radtec and click on the application process checklist, form, and information packet. This criteria is subject to change.

Applicants to the Radiologic Technology program must meet the following criteria:
1. Eligibility for admission to Chaffey College.
2. Applicants to the Radiologic Technology program must meet the following criteria:
   a. MATH 410, 411, or higher level math, STAT 10 or SCSCI 10, or placement into MATH 425 or higher as determined by the Chaffey assessment process.
   b. CHEM 10; or 21, 21L1, and 21L2; or PHYS 5 or higher, or one year of high school chemistry or physics.
   c. BIOL 20 (or BIOL 424 and 424L)
   d. BIOL 30
   * Students who have not maintained continuous attendance are required to meet the graduation requirements effective with the 2009-10 catalog.

Notes:
1. Students are admitted to the Radiologic Technology program on a point system. Therefore, it is imperative that applicants meet with a counselor regarding the point system prior to beginning the prerequisite and general education courses.
2. Required courses listed under number three above and general education courses are assigned points. Only courses completed prior to the application period will be included for full point calculation.
3. Students must earn a minimum grade of C (2.0) in all required and general education courses.
4. Applicants will be notified if they are accepted into the program by the end of May.
5. Prior to admission to the RT program, evidence of satisfactory physical and emotional health is required as determined by a health examination.
6. In order to continue in the RT program, students must earn a minimum grade of C (78%) in all Radiologic Technology courses.
7. Applicants must obtain and submit a certificate of successfully passing a background check from www.mybackground.com with a shared password. Refer to the RT website at www.chaffey.edu/radtec for details.
8. Applicants with a record of any felony are subject to review by the ARRT before an examination or license will be granted. Contact the ARRT and submit a pre-application to determine eligibility for ARRT licensing (www.arrt.org).

9. Effective 2010-2011 all applicants to the RT program will be required to completed or be enrolled in MATH-425. Both ENGL 1A and MATH 425 will be required courses to earn an Associate Degree in Radiologic Technology.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RADTEC 10 Anatomy and Radiographic Positioning</td>
<td>3</td>
</tr>
<tr>
<td>RADTEC 10L Laboratory for Anatomy and Radiographic Positioning</td>
<td>1</td>
</tr>
<tr>
<td>RADTEC 16 Medical Procedures for Radiologic Technologists</td>
<td>3</td>
</tr>
<tr>
<td>RADTEC 16L Laboratory for Medical Procedures for Radiologic Technologists</td>
<td>1</td>
</tr>
<tr>
<td>RADTEC 20 Radiologic Science and Protection</td>
<td>3</td>
</tr>
<tr>
<td>RADTEC 20L Laboratory for Radiologic Science and Protection</td>
<td>1</td>
</tr>
<tr>
<td>RADTEC 25 Anatomy and Radiographic Positioning II</td>
<td>3</td>
</tr>
<tr>
<td>RADTEC 25L Laboratory for Anatomical and Radiographic Positioning</td>
<td>1</td>
</tr>
<tr>
<td>RADTEC 31 Radiographic Clinical Education I</td>
<td>2</td>
</tr>
<tr>
<td>RADTEC 34 Radiographic Imaging</td>
<td>3</td>
</tr>
<tr>
<td>RADTEC 34L Laboratory for Radiographic Imaging</td>
<td>1</td>
</tr>
<tr>
<td>RADTEC 40 Radiographic Clinical Education II</td>
<td>8</td>
</tr>
<tr>
<td>RADTEC 50 Radiographic Clinical Education III</td>
<td>6</td>
</tr>
<tr>
<td>RADTEC 55 Radiographic Equipment and Clinical Application</td>
<td>2</td>
</tr>
<tr>
<td>RADTEC 61 Radiographic Clinical Education IV</td>
<td>8</td>
</tr>
<tr>
<td>RADTEC 66 Anatomy and Radiographic Positioning III</td>
<td>3</td>
</tr>
<tr>
<td>RADTEC 66L Laboratory for Anatomical and Radiographic Positioning III</td>
<td>1</td>
</tr>
<tr>
<td>RADTEC 70 Radiographic Clinical Education V</td>
<td>11</td>
</tr>
<tr>
<td>RADTEC 76 Radiographic Pathology</td>
<td>4</td>
</tr>
<tr>
<td>RADTEC 81 Radiographic Clinical Education VI</td>
<td>5</td>
</tr>
<tr>
<td>RADTEC 85 Radiographic Review and Exam Preparation</td>
<td>2</td>
</tr>
<tr>
<td>RADTEC 460 Venipuncture for Imaging Professionals</td>
<td>1.5</td>
</tr>
<tr>
<td>RADTEC 460L Venipuncture Laboratory for Imaging Professionals</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Total units for the major: 74

Note: RADTEC 50 and 55 are offered during the first summer of the program and RADTEC 81 and 85 are offered during the second summer of the program.
REAL ESTATE

The real estate professional in California is concerned with the transfer of title to real property and those activities supporting this vital function. Ranging in scope from the sale of single family residence to the management of a multi-unit residential complex, the real estate industry requires extensive education and practical experience of its licensees. The California Real Estate Commission has established stringent regulations, and the National Association of Realtors has an equally stringent Code of Ethics to insure a high level of individual professionalism.

To obtain an Associate's Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Science Degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 10</td>
<td>3</td>
</tr>
<tr>
<td>RE 15</td>
<td>3</td>
</tr>
<tr>
<td>RE 50</td>
<td>3</td>
</tr>
<tr>
<td>RE 60</td>
<td>3</td>
</tr>
<tr>
<td>RE 70</td>
<td>3</td>
</tr>
<tr>
<td>RE 86</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus three courses from the following (at least 9 units):

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTG 1A Principles of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>(or ACCTGFS 465, Financial Accounting for the Non-Accounting Major)</td>
<td>3</td>
</tr>
<tr>
<td>ACCTGFS 453 U.S. and California Income Tax Preparation</td>
<td>4</td>
</tr>
<tr>
<td>ACCTGFS 454 Introduction to the Taxation of Corporations and Partnerships</td>
<td>4</td>
</tr>
<tr>
<td>BUS 13 Professional Selling</td>
<td>3</td>
</tr>
<tr>
<td>BUS 26A Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 26B Business Law II</td>
<td>3</td>
</tr>
<tr>
<td>BUS 49 Business Decisions Using Basic Quantitative Tools</td>
<td>3</td>
</tr>
<tr>
<td>BUSMGT 40 Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td>BUSOT 455 Fundamentals of English for Business</td>
<td>3</td>
</tr>
<tr>
<td>CIS 1 Introduction to Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 68 Using the Internet</td>
<td>1.5</td>
</tr>
<tr>
<td>COMSTD 8 Fundamentals of Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECON 1 Introduction to Economics</td>
<td>3</td>
</tr>
<tr>
<td>RE 472 Advanced Real Estate Appraisal</td>
<td>3</td>
</tr>
<tr>
<td>RE 475 Real Estate Escrow I</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the major 27

Requirements for the Real Estate Certificate:

Same as the major requirements for the A.S. Degree.

Total units for the certificate 27

Real Estate Salesperson's Certificate:

This program is intended for individuals desiring to become real estate salesperson with a minimum of course requirements.

Requirements for the Real Estate Salesperson Certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 10</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus two courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE 15</td>
<td>3</td>
</tr>
<tr>
<td>RE 50</td>
<td>3</td>
</tr>
<tr>
<td>RE 60</td>
<td>3</td>
</tr>
<tr>
<td>RE 70</td>
<td>3</td>
</tr>
<tr>
<td>RE 86</td>
<td>3</td>
</tr>
<tr>
<td>RE 475</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the certificate 9

Note: As of July 1, 2003, all applicants for a real estate salesperson license for the state of California are required to complete a course in Real Estate Practices in addition to the other required courses. Real Estate Practices must be taken either prior to the license examination or for conditional licenses, within eighteen months after issuance of the license. Real estate salesperson applicants will still be required to take Real Estate Principles.

SOCIOMETRY

Sociology is the study of social interactions. Sociology students will come to understand the individual as a social actor and the social forces which affect individuality: how age, gender, ethnicity, social class, and other social factors affect a person's opportunities, attitudes, and behaviors. How do people create their society? Small groups, crowd behavior, organizations, institutions, protest groups, communities, and societies are studied in terms of stable patterns of social behavior, as well as conflict and change.

To obtain an Associate’s Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Arts Degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCSCI 10 Statistics for Social Science</td>
<td>4</td>
</tr>
<tr>
<td>SOC 10 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 70 Social Problems</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus three courses from the following or from approved special topics:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCSCI 11 Computer Applications for the Social Sciences</td>
<td>3</td>
</tr>
<tr>
<td>SCSCI 17 Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>SOC 11 Popular Culture</td>
<td>3</td>
</tr>
<tr>
<td>SOC 14 Sociology of Gender</td>
<td>3</td>
</tr>
<tr>
<td>SOC 15 Ethnic and Race Relations: U.S. and Global Perspectives</td>
<td>3</td>
</tr>
<tr>
<td>SOC 16 Marriage, Family and Relationships</td>
<td>3</td>
</tr>
<tr>
<td>SOC 18 Sociology of Aging</td>
<td>3</td>
</tr>
<tr>
<td>(also available as GERO 18)</td>
<td></td>
</tr>
<tr>
<td>SOC 19 Sociology of Deviance</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the major 25

Required General Education Course:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1A Composition</td>
<td>3</td>
</tr>
</tbody>
</table>

PROGRAMS OF STUDY
THEATRE ARTS

The Theatre Arts program provides students with both the theory and practical experience necessary for either employment in beginning levels of professional theatre or transfer to a theatre arts major in a four-year institution. Various productions are offered to provide students with a broad range of practical training.

To obtain an Associate's Degree, students must complete both the major requirements below and the graduation requirements listed on pages 24-25.

Major requirements for the Associate in Arts Degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEATRE 1</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Theatre</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 2</td>
<td>3</td>
</tr>
<tr>
<td>(also available as DANCE 2)</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 4</td>
<td>3</td>
</tr>
<tr>
<td>Development of the Theatre I</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 5</td>
<td>3</td>
</tr>
<tr>
<td>Development of the Theatre II</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 10</td>
<td>3</td>
</tr>
<tr>
<td>Beginning Acting</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 20</td>
<td>3</td>
</tr>
<tr>
<td>Directing for the Stage I</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 30</td>
<td>3</td>
</tr>
<tr>
<td>Technical Theatre</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 50</td>
<td>3</td>
</tr>
<tr>
<td>Main Stage Production Workshop I</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus one course from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEATRE 16</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Costume Design and Production</td>
<td>3</td>
</tr>
<tr>
<td>(also available as FASHD 16)</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 32</td>
<td>3</td>
</tr>
<tr>
<td>Theatre Design - Lighting</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 34</td>
<td>3</td>
</tr>
<tr>
<td>Theatre Design - Scenography</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 40</td>
<td>3</td>
</tr>
<tr>
<td>Stage Costuming</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 42</td>
<td>3</td>
</tr>
<tr>
<td>Theatrical Makeup</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 64</td>
<td>3</td>
</tr>
<tr>
<td>History of Costume</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus two courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEATRE 12</td>
<td>3</td>
</tr>
<tr>
<td>Intermediate Acting</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 14</td>
<td>3</td>
</tr>
<tr>
<td>Stylized Acting</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 18</td>
<td>3</td>
</tr>
<tr>
<td>Seminar in Television Production: Acting Techniques</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 21</td>
<td>3</td>
</tr>
<tr>
<td>Directing for the Stage II</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 35</td>
<td>3</td>
</tr>
<tr>
<td>Musical Theatre Performance</td>
<td>3</td>
</tr>
<tr>
<td>THEATRE 56</td>
<td>4</td>
</tr>
<tr>
<td>Children's Theatre</td>
<td>4</td>
</tr>
<tr>
<td>THEATRE 60</td>
<td>3</td>
</tr>
<tr>
<td>Seminar: Acting</td>
<td>3</td>
</tr>
</tbody>
</table>

Total units for the major 33-34

UNIVERSITY STUDIES

The Associate in University Studies is designed for students who wish a broad knowledge of liberal arts and sciences plus additional coursework in an ‘Area of Emphasis’. This area of emphasis would be an ideal choice for students planning on transferring to the California State University (CSU) or University of California (UC) as the student can satisfy their general education requirements, plus focus on transferable course work that relates to majors at these institutions. Please consult with a counselor for specific information regarding your intended major at the specific college/university of your choice.

- Select either the California State University General Education (CSU-GE) or Intersegmental General Education Transfer Curriculum (IGETC) for the general education pattern related to your educational goal.

- Complete 18 units in one ‘Area of Emphasis’ from those outlined below. (Note: where appropriate, courses in the ‘Area of Emphasis’ may also be counted for a general education area)

- For ALL OPTIONS: complete necessary Chaffey College Graduation and Proficiency requirements.

- All classes listed below transfer to CSU and courses in BOLD also transfer to UC. Please refer to www.assist.org for articulation agreements and transfer details.

Requirements for the Associate in Arts Degree:

<table>
<thead>
<tr>
<th>Area of Emphasis</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education CSU-GE or IGETC</td>
<td>33-39</td>
</tr>
</tbody>
</table>

Units necessary to meet CSU-GE or IGETC Certification requirements only.

B. Areas of Emphasis: 18

- A minimum of 18 units required in one Area of Emphasis listed below with two or more courses in one discipline
- Courses selected may also be used to fulfill general education areas; refer to each transfer institution policy.
- All courses below transfer to California State University
- Courses in BOLD also transfer to University of California. Refer to ASSIST, the course descriptions in this catalog, or consult with a counselor to be sure of transfer status and credit limitations at the University of California.

Elective units may be necessary to total 60 overall units required for the Associate Degree. These units must be transferable to the CSU and/or UC for appropriate credit

Total units for the degree 60

AREAS OF EMPHASIS

1. ARTS AND HUMANITIES:

These courses emphasize the study of cultural, literary, humanistic activities and artistic expression of human beings. Students will evaluate and interpret the ways in which people through the ages in different cultures have responded to themselves and the world around them in artistic and cultural creation. Students will also learn to value aesthetic understanding and incorporate these concepts when constructing value judgments.

At least one course must be completed in Arts and one in Humanities. This requirement will be met through the completion of CSUGE or IGETC; students pursuing transfer majors in these areas will be required to take additional courses in Arts and/or Humanities.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Sign Language</td>
<td>1, 2, 3, 4, 16</td>
</tr>
<tr>
<td>Arabic</td>
<td>1, 2</td>
</tr>
<tr>
<td>Art</td>
<td>1, 3, 5, 6, 8, 9, 10, 11, 12, 14, 16, 18, 20, 44, 63, 64</td>
</tr>
<tr>
<td>Chinese</td>
<td>1, 2</td>
</tr>
<tr>
<td>Cinema</td>
<td>24, 26</td>
</tr>
<tr>
<td>Dance</td>
<td>1, 2</td>
</tr>
<tr>
<td>English</td>
<td>18, 1C, 30, 32, 33, 68, 70A, 70B, 71, 74, 75A, 75B, 76, 79, 80A, 80B, 81</td>
</tr>
<tr>
<td>Fashion Design</td>
<td>20, 45</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>50</td>
</tr>
<tr>
<td>Interior Design</td>
<td>11, 12, 20, 45</td>
</tr>
<tr>
<td>French</td>
<td>1, 2, 3, 4</td>
</tr>
<tr>
<td>German</td>
<td>1, 2</td>
</tr>
<tr>
<td>History</td>
<td>1, 2, 4, 7, 16, 20, 40</td>
</tr>
<tr>
<td>Humanities</td>
<td>5, 6, 20</td>
</tr>
<tr>
<td>Music</td>
<td>1, 2A, 2B, 3A, 3B, 4, 21, 22, 26, 70A, 70B</td>
</tr>
<tr>
<td>Philosophy</td>
<td>70, 72, 73, 75, 76, 77, 78, 80, 81, 82</td>
</tr>
<tr>
<td>Photography</td>
<td>1, 7, 9, 10</td>
</tr>
<tr>
<td>Spanish</td>
<td>1 or 1A and 1B, or 1SS, 2 or 2A and 2B or 2SS, 3, 4, 7, 8, 13</td>
</tr>
<tr>
<td>Theatre</td>
<td>1, 4, 5, 10, 12, 64</td>
</tr>
</tbody>
</table>
2. SOCIAL & BEHAVIORAL SCIENCES:
[A302/18042/4903.30]
These courses emphasize the perspectives, concepts, theories and methodologies of the disciplines typically found in the vast variety of disciplines that comprise study in the Social and Behavioral Sciences. Students will study about themselves and others as members of a larger society. Topics and discussion to stimulate critical thinking about ways people have acted in response to their societies will allow students to evaluate how societies and social subgroups operate.

| Administration of Justice | 1 |
| Anthropology             | 2, 3 |
| Child Development and Education | 2, 4, 6 |
| Communication Studies    | 2, 4, 6, 8, 12, 14, 72, 74, 76 |
| Consumer Studies         | 11, 40 |
| Economics                | 1, 2, 4, 8 |
| Education                | 10 |
| Geography                | 1, 10, 11 |
| Gerontology              | 1, 2, 4, 5, 6, 7, 9, 10, 12, 16, 17, 18, 20, 21, 25, 40, 50, 51, 70, 71 |
| Political Science        | 1, 2, 7, 10, 25 |
| Psychology               | 1, 5, 20, 21, 25, 41, 65, 80 |
| Social Science           | 10, 13, 17, 22, 25 |
| Sociology                | 10, 14, 15, 16, 18, 20 |

3. MATHEMATICS & SCIENCE:
[A303/18043/4902.00]
These courses emphasize the natural sciences which examine the physical universe, its life forms and its natural phenomena. Courses in Math emphasize the development of mathematical and quantitative reasoning skills beyond the level of intermediate algebra. Students will be able to demonstrate an understanding of the methodologies of science as investigative tools. Students will also examine the influence that the acquisition of scientific knowledge has on the development of the world's civilizations.

At least one course must be completed in Math and one in Science. This requirement will be met through the completion of CSUGE or IGETC; students pursuing transfer majors in these areas will be required to take additional courses in Math and/or Science.

| Mathematics (beyond the Intermediate Algebra level) | 4, 25, 31, 61, 65A, 65B, 75, 81, 85 |
| Anthropology                                       | 1 or 1+1L |
| Astronomy                                          | 25, 26, 35, 36 |
| Biology                                            | 1, 2, 3, 4, 5, 10 or 10+10L, 11, 12, 14, 16, 20, 22, 23 or 23+23L, 50, 52, 55, 56, 63 |
| Chemistry                                          | 7, 8, 9, 10, 12, 21+21L+21L2, 22+22L+22L2, 70, 75A, 75B |
| Computer Science                                   | 1, 1L |
| Earth Science                                      | 1 or 1+1L, 5 or 5+5L, 8 |
| Engineering                                        | 26, 30, 34, 50, 52, 60, 70 |
| Geography                                          | 4 or 4+5, 6 |
| Geology                                            | 1, 2, 6, 20, 88, 85 |
| Nutrition & Food                                   | 5, 15 |
| Physical Science                                   | 10 |
| Physics                                            | 5 or 5+20, 20A, 20B, 30A, 30B, 44, 45, 46, 47 |
| Social Science                                     | 10 |
| Statistics                                         | 10 |

4. BUSINESS & TECHNOLOGY
[A304/18044/4999.00]
These courses emphasize the integration of theory and practice within the fields of business and technology. Students will develop the ability to effectively manage and lead organizations. Students will demonstrate an understanding of the place of business and technology within the global economy. Students will critically apply ethical standards to business practices and decisions.

Technology represents the sum of a society's practical knowledge and is integrated throughout all aspects of business in our modern world. In this area of emphasis, technology courses are those that apply technical knowledge or tools in a discipline, such as Hotel and Food Service Management, Fashion, and Accounting; business courses would be those pertinent to all areas such as Business, Economics, Statistics, and Management. Students choosing this area of emphasis are required to take at least one course in business and one in technology.

| Accounting                                   | 1A, 1B |
| Administration of Justice                    | 1, 2, 4 |
| Automotive Technology                        | 10 |
| Broadcasting                                | 3, 55, 60, 62 |
| Business                                     | 10, 28A, 288 |
| Business: Management                         | 11, 40 |
| Business and Office Technologies             | 61, 64A |
| Computer Information Systems                 | 1, 4 |
| CIS: Programming                             | 1, 3 |
| Computer Science                             | 1, 21 |
| Correctional Science                         | 1 |
| Drafting                                     | 20, 21, 22 |
| Economics                                    | 2, 4 |
| Fashion Design                               | 40, 61 |
| Fashion Merchandising                        | 10, 11, 15, 60, 65 |
| Hotel and Food Service Management            | 10, 18, 20 |
| Interior Design                              | 10, 21, 16 |
| Mathematics                                  | 60 |
| Nutrition and Food                           | 5, 15, 25 |
| Real Estate                                  | 10 |
| Statistics                                   | 10 |
| Social Science                               | 10 |
**COURSE DESCRIPTIONS**

**How to Read the Course Entries**

Courses listed in this catalog apply to the Fall 2009, Spring 2010, and Summer 2010 terms. Courses are ordered numerically within alphabetically arranged subject areas.

- The bolded first line(s) indicate the official course number, a descriptive title, the number of units, and credit-by-exam authority (if applicable). Alpha-suffixes to course numbers indicate either (a) modularized courses where “A” precedes “B”, or (b) courses with variable units.
- The following line identifies the applicability of the course to college credit. All courses listed in this catalog are degree-applicable, non-degree-applicable, or non-credit. A subset of degree-applicable courses are also transferable to the CSU and/or the UC systems and are designated as such.
- The next line identifies the type of instructional delivery and the required range of hours for each delivery method per term.
- The next line identifies the grading schema for the course, which may be letter grade only, pass/no-pass grade only, letter grade with option for pass/no pass grading, or not graded.
- Next are italicized lines indicating limitations on enrollment, prerequisites, corequisites, and advisories.
- The course description paragraph follows, with the TOP code assigned to the course appended at the end.

**Course Numbering**

1-99
Lower-division transfer and baccalaureate degree level courses. These courses are comparable to those offered in the first two years of a four-year college or university. Courses transferable to the California State University are marked (CSU); courses transferable to the University of California are marked (UC). Some transferable courses have credit limitations at either CSU or UC (or both); students should consult a counselor for details on these limitations.

400-499
Associate degree level courses may be applied to the Associate in Arts and Associate in Science degrees, as well as to vocational certificates.

500-599
Non degree applicable remedial and college preparatory courses are not part of the associate degrees nor vocational certificates, although they may be prerequisites to required courses. College credit is assigned and courses may be included in the student educational plan. These courses may be letter grade or pass/no-pass. If graded, the grades are not included in students’ degree applicable grade point average computation.

600-699
Non-credit courses provide remedial, developmental, occupational, and general education opportunities. They do not earn unit credit and are not considered part of collegiate-level study. Most are not graded; those that are graded have a pass/no-pass grading schema.

**Other Information**

**Credit by Examination [Cx]**
Courses designated [Cx] may be challenged for credit by examination.

**Independent Study**
Independent study courses provide individual students challenging and in-depth study on approved topics within any subject area. Independent study proposals must have the approval of the instructor and appropriate administrator. It is expected that the study will not duplicate existing curriculum; rather, it will be of an advanced nature and extend approved courses or series of courses. Interested students should contact discipline faculty for more information.

**Requisites and Advisories**
Some courses place limitations on enrollment. These limitations may require successful completion of other courses, concurrent enrollment in other courses, specific assessment scores for English, math, and/or reading skills, performance criteria, or health and safety conditions. Students not meeting the conditions imposed by these requirements may be unable to register for or may be dropped from any class requiring same. See the “Limitations on Enrollment” section elsewhere in this catalog for more information.

Advisories are recommendations for courses or competencies that students are encouraged - but not required - to meet before or in conjunction with the course to which they are attached.

**Special Topics**
Special topics courses offer in-depth study of topics not currently covered in the existing curriculum. Courses may be lecture, lab, or studio. Topics and unit value are determined by the department at the time of offering. Consult each term’s Schedule of Classes for specifics.

**Taxonomy of Program Numbers (TOP)**
The TOP number, as assigned by the 6th edition of the Taxonomy of Programs, is listed at the end of each course description. This number is included for Systems Office reference and program planning/budgeting purposes, and is not intended for student use.
ACCOUNTING (ACCTG)

1A Principles of Accounting I (4)
(CSU; UC)
Hours: 64-72 lecture.
Grading: Letter grade only.
Prerequisite: Accounting 1A.
Advisory: Computer Information Systems 1 or experience using spreadsheets.
Introduction to the bookkeeping of a small business, performing accounting for small businesses. May be repeated. Required corequisites based on the content of the course. 0502.00

1B Principles of Accounting II (4)
(CSU; UC)
Hours: 64-72 lecture.
Grading: Letter grade only.
Prerequisite: Accounting 1B.
Basic concepts and techniques for using simplified commercial accounting software as a powerful planning tool for small businesses. Develop an understanding of the accounting process and how to enter and process data, create reports and interpret the results for effective business planning. May be taken twice. 0502.00

435 Payroll Accounting (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Accounting 1A, 480, or 481.
Comprehensive overview of federal and state payroll laws and their effect on payroll records and required government reports. Course may be taken every three years as needed to maintain currency with payroll laws. May be taken four times. 0502.00

450 Federal Tax Principles I (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Federal income tax principles and tax preparation for individuals and small business entities. 0502.10

459 Simplified Commercial Accounting Software (1.5)
(Degree-applicable)
Hours: 24-27 lecture.
Grading: Letter grade only.
Basic concepts and techniques for using simplified commercial accounting software as a powerful planning tool for small businesses. Develop an understanding of the accounting process and how to enter and process data, create reports and interpret the information. May be taken twice. 0502.00

460 Commercial Accounting Software (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Prerequisite: Accounting 1A.
Advisory: Completion of Accounting 1A.
Basic concepts and techniques for using commercial accounting software designed for microcomputers in businesses grossing less than $500,000 annually. How to enter and process data, create reports and interpret the information. May be taken twice. 0502.00

461 Advanced Commercial Accounting Software (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Prerequisite: Accounting 1A.
Advisory: Completion of Accounting 1A.
Basic concepts and techniques for using commercial accounting software designed for microcomputers in businesses grossing more than $500,000 annually. How to enter and process data, create reports and interpret the information. May be taken twice. 0502.00

462 Advanced Techniques in Accounting Software Programs (1.5)
(Degree-applicable)
Hours: 24-27 lecture.
Grading: Letter grade only.
Advisory: Completion of Accounting 459 or 460, or experience in accounting software including spreadsheets.
Advanced concepts and techniques for using simplified accounting software, in conjunction with other business software programs, to generate a variety of technical reports, tables, and graphs. How to export data and interpret the resultant documents. May be taken twice. 0502.00

480 Applied Accounting I (3) (Cx)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Introduction to the bookkeeping of a small business, with emphasis on service-oriented sole proprietorships. Skills and tasks covered include journalizing business transactions, maintaining a general ledger system, and preparing and analyzing financial statements. Course is suitable preparation for individuals performing accounting for small businesses. May be taken twice. 0502.00

481 Applied Accounting II (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Prerequisite: Accounting 480.
Continuation of bookkeeping for a small service business, with an introduction to bookkeeping for a merchandising enterprise and accounting for partnerships and corporations. Course culminates in a comprehensive review of full-charge bookkeeping practices, and is suitable preparation for the Certified Bookkeeper exam, and for persons involved with or interested in small business accounting. 0502.00

492A-H Special Topics: Accounting (.5-.6)
(Degree-applicable)
Hours: 16-18 hours/term lecture for each unit of credit.
Grading: Letter grade only.
Selected topics for students who wish to pursue specialization within in accounting. Topics will be determined by the individual instructor; see class schedule for current emphasis. May be taken four times regardless of the unit combination, however no single topic may be repeated. May require prerequisites and/or corequisites based on the content of the course. 0502.00

492LA-H Special Topics: Laboratory: Accounting (.5-.6)
(Degree-applicable)
Hours: 48-54 hours/term laboratory for each unit of credit.
Grading: Letter grade only.
Selected laboratory topics for students who desire in-depth exploration in specialized areas of accounting. May be taken four times regardless of the unit combination. However, no single-subject, special-interest class may be repeated. May require corequisites and/or prerequisites based on the content of the course. 0502.00

496A,B,C,D Internships in Accounting (1, 2, 3, or 4)
(Degree-applicable)
Hours: 60 hours/term (unpaid) or 75 hours/term (paid) on-site work experience for each unit of credit.
Grading: Letter grade only.
Limitation on Enrollment: Consent of the Accounting Program Coordinator is required.
Corequisite: Concurrent enrollment in any Chaffey College course.
Advisory: Completion of Accounting 459 or 460. Supervised internship in cooperation with private or public sector employers. Designed to apply knowledge and learn new skills, directly related to the student's program of study, outside of the normal classroom environment. Placement is arranged through the instructor. Participation requirements may vary with the job setting. May be taken four times, for a maximum of six units credit. 0502.00

ACCOUNTING AND FINANCIAL SERVICES (ACCTGF)

440 Introduction to Financial Planning (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Introduction to the concepts of the personal financial planning process, including budgeting, cash flow, debt considerations, the economic environment, wealth accumulation, and retirement concerns. Examination of regulation and licensing of investment advisors within the financial planning profession. 0504.00
442 Fundamentals of Finance and Investing (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Introduction to finance theory and its application to investment decisions involving stocks, bonds, mutual funds, government securities, options, and real estate. Topics include asset allocation principles, modern portfolio theory, investment tools and strategies, diversification, and tax efficient investing.  0504.00

450 Tax Preparation for Small Business (1.5)  
(Degree-applicable)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Tax consequences of business decisions from the small business owners' perspective. Topics include applicable U.S. and California tax laws, deductions, depreciation, medical and insurance plans, withholding, payroll and income tax liabilities, and retirement plan options. May be taken four times.  0502.10

453 U.S. and California Income Tax Preparation (4)  
(Degree-applicable)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
U.S. and California income tax principles and tax return preparation as it relates to individuals, sole proprietors, and other business entities. This course is certified by the California Tax Education Council as fulfilling the 60-hour qualifying education requirement imposed by the State of California for becoming a Registered Tax Preparer.  0502.10

454 Introduction to the Taxation of Corporations and Partnerships (4)  
(Degree-applicable)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Accounting and Financial Services 453. Basic computer skills, and some experience with spreadsheets.  
Introduction to the tax issues pertinent to corporations, partnerships, estates, and trusts. Emphasis on the tax code and relevant regulations, as well as the transactions common to these types of entities. Helps prepare students for the Enrolled Agents exam.  0502.10

465 Financial Accounting for the Non-Accounting Major (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Business and Office Technologies 455, or eligibility for English as a Second Language 558. Second Language 450 or completion of English as a Second Language 550, or eligibility for English as a Second Language 558.  
Creation, use, and interpretation of accounting data by the non-accounting business major, from an entrepreneurial perspective. Topics include business structure and financial statement analyses; forecasted financial statements; cash management and budgeting, including capital and operating budgets; management of receivables and payables; and an overview of financing options, banking relations, and credit management.  0502.00

Administration of Justice (AJ)  
While many of the Administration of Justice courses may be challenged for Credit-by-Examination, a limitation to the number of challenges may apply. Contact the office of the Dean of Social and Behavioral Sciences for more information.
413 Police Supervision, Leadership, and Management (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Administration of Justice 408.  
Role, function, and duties of the law enforcement supervisors and managers. Topics include defining the mission of law enforcement agencies; organizational structure; patrol operations, scheduling and deployment; department policies and procedures, personnel training; performance evaluations, selection, promotion of personnel; oral and written communications, including response to complaints and community concerns.  
2105.00

414 Criminology (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Historical development of criminology and the application of contemporary thought to the problem of crime in America. Topics include theories of criminal behavior; the nature, extent, control, and prevention of crimes; individual and group criminal activity; criminal behavior systems; recidivism; crime categories; crime prevention theory; aspects of victimology and police behavioral response.  
2105.00

415 Principles and Practices of Interviewing and Investigation (1.5)  
(Degree-applicable)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Administration of Justice 1 and 409.  
Techniques of effective interviewing and interrogation. An examination of laws that relate to admissibility of solicited statements in court.  
2105.00

416 Crime Scene Sketching and Notetaking (1.5)  
(Degree-applicable)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Prerequisite: Administration of Justice 5.  
Study of search patterns, crime sketching, and note-taking. Topics include: identification of the crime scene; investigative patterns and techniques; tool use; mathematical measurements; evidence handling procedures; note-taking strategies; elements of the crime scene sketch, including the definition and use of symbols and legends; and the preparation and presentation of crime scene sketches in court. May be taken twice.  
2105.00

AERONAUTICS  
(SEE AVIATION MAINTENANCE TECHNOLOGY)

AMERICAN SIGN LANGUAGE  
(ASL)

1 Elementary American Sign Language (4)  
(CSU; UC)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Study of American Sign Language (ASL) including an introduction to current and historical aspects of deaf culture. Skills focus on the basic principles of phrasing, vocabulary, sentence patterns, manual counting and spelling, semantics, and the development of expressive and receptive abilities. Fourteen hours of supplemental learning in a Success Center that supports this course is required. This course corresponds to the first year of high school ASL.  
0850.00

2 Elementary American Sign Language (4)  
(CSU; UC)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Prerequisite: American Sign Language 1 or one year of high school American Sign Language.  
Continued systematic study of the structure, vocabulary, and conversational strategies of American Sign Language (ASL). Skills focus on the basic principles of phrasing, sentence patterns, manual counting and spelling, semantics, and the development of expressive and receptive abilities. Continued study of the American Deaf culture history, community and language. Fourteen hours of supplemental learning in a Success Center that supports this course is required.  
0850.00

3 Intermediate American Sign Language (4)  
(CSU; UC)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Prerequisite: American Sign Language 2 or two years of high school American Sign Language.  
Continued study and review of the structure, vocabulary, and conversational strategies of American Sign Language (ASL). Review of ASL grammar, with special emphasis on idiomatic constructions. Continued study of the American Deaf culture history, community and language; thereby promoting an understanding of the wide variety of cultural issues concerning the Deaf community. Fourteen hours of supplemental learning in a Success Center that supports this course is required.  
0850.00

4 Intermediate American Sign Language (4)  
(CSU; UC)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Prerequisite: American Sign Language 3.  
Continued study and review of the structure, vocabulary, grammar, and conversational strategies of American Sign Language (ASL). Further development and refinement of ASL fluency in both productive and receptive skills, including mastery of ASL sentence structures. Appreciation and application of Deaf cultural norms, values, and behaviors. Fourteen hours of supplemental learning in a Success Center that supports this course is required.  
0850.00

16 American Deaf Culture (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
An introduction to American Deaf culture, history, community, and language. Deaf cultural values, characteristics, norms, minority issues, and community dynamics are explored. Societal and individual perceptions of self in relation to group identity are examined through articles, books, interviews, videos, and community interaction. Students engage in community service activities in order to experience Deaf culture first-hand.  
0850.00

ANTHROPOLOGY (ANTHRO)  
(SEE ALSO SOCIAL SCIENCES)

1 Introduction to Physical Anthropology (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Corequisite: Anthropology 1 (may be taken previously).  
Study of the biological features of humankind, utilizing scientific and comparative methods to help understand variation and adaptation among humans, through the exploration of genetics, primatology, and the human fossil record.  
2202.00

11 Laboratory for Physical Anthropology (1)  
(CSU; UC)  
Hours: 48-54 laboratory plus one Saturday field trip.  
Grading: Letter grade only.  
Corequisite: Anthropology 1.  
Optional laboratory experience coordinated with Anthropology 1. Comparative study of both human and non-human primates, human variation, evolution, genetics, forensic anthropology, and the primate fossil record.  
2202.00

2 Introduction to Archaeology (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Survey of archaeology, including the use of basic methods of investigation, prehistoric and historic records, and related materials to help reconstruct past behaviors. Major cultural developments are explored, including the development of stone tools, fire use, shelters, agriculture, and the formation of cities and states.  
2202.20

3 Introduction to Social and Cultural Anthropology (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
The nature of culture and the range of cultural phenomena, including material culture, social organization, religion, language, and other topics. The course emphasizes the ways of living that different societies have developed to adapt to their environment. The comparative method is stressed. May be offered as an Honors course.  
2202.00

92A-H Special Topics: Anthropology (.5-6)  
(CSU; UC credit limitations)  
Hours: 16-18 hours/term for each unit of credit.  
Grading: Letter grade only.  
Special-interest course of varying length for students who wish further exploration in specific areas of anthropology. Topics will be determined by the individual instructor. This course may be taken four times regardless of the unit combination. However, no single-subject, special-interest class may be repeated. May require corequisites and/or prerequisites based on the content of the course.  
2202.00

98A-C Independent Study: Anthropology (1, 2, 3)  
(CSU credit limitations)  
Grading: Letter grade only.  
Limitation on Enrollment: Instructor signature is required for registration.  
Special project course designed for the capable, well-motivated student. Student explores and develops a project or paper on an area of personal interest within the discipline area. The nature and extent of the project must be decided upon by both the student and the instructor before the student signs up for the course, since the scope of the project determines the number of units allowed. May be taken three times regardless of the unit combination. However, no single-subject paper or project may be repeated.  
2202.00
ARCHITECTURE

(SEE DRAFTING)

ART (ART)

1 Contemporary Art: 1950 - Present (3) [Cx]
   (CSU; UC)
   Hours: 48-54 lecture.
   Grading: Letter grade only.
   Survey of the diverse artistic movements from 1950 to the present, examining the painting, sculpture, photography, architecture, performance art, and video art of each movement. Key terms and concepts, philosophical issues, and changing art theories. Influence of Dada, Abstract-Expressionism, and Pop Art, as well as ancient and world art, on Contemporary Art. Course is an introduction to studio art, graphic design, photography, and art history majors. May be offered as an Honors course.

2 Art History of Western World: 1400 - Contemporary (3) [Cx]
   (CSU; UC)
   Hours: 48-54 lecture.
   Grading: Letter grade only.
   Survey of the architecture, sculpture, and painting of past cultures of the Western World from 1400 through the present; how symbolism, visual concepts, and artistic style reflect the philosophy, religion, values, and concerns of each culture and historical period.

3 Art of Africa, Oceania, and North America (3) [Cx]
   (CSU; UC)
   Hours: 48-54 lecture.
   Grading: Letter grade only.
   Introduction to contemporary media, artists, and visual languages. Explores impact of photography, video, print media, and computers on artists, arts, and society. Theories of media and visual communication will be studied as a means to develop an understanding of artistic and societal trends. Study of the contemporary uses of media to assess the evolution of media technologies in the arts.

4 Art of the Pre-Columbian Americas (3) [Cx]
   (CSU; UC)
   Hours: 48-54 lecture.
   Grading: Letter grade only.
   Study of the diverse artistic movements from the early beginnings of art of the Western World through 1400; how symbolism and artistic style reflect the daily life, philosophy, religion, values, and concerns of each culture and historical period.

5 Art History of Western World: 1400 - Contemporary (3) [Cx]
   (CSU; UC)
   Hours: 48-54 lecture.
   Grading: Letter grade only.
   Survey of the architecture, sculpture, and painting of past cultures of the Western World from 1400 through the present; how symbolism, visual concepts, and artistic style reflect the philosophy, religion, values, and concerns of each culture and historical period.

6 Women Artists in History (3)
   (CSU; UC)
   Hours: 48-54 lecture.
   Grading: Letter grade only.
   Architecture, sculpture, and painting by women artists from the Middle Ages to the present; how the iconography and style of art by women reflects and affects the philosophy, religion, values, and concerns of the cultures and historical period. May be offered as an Honors course.

7 Contemporary Media, Art and Visual Language (3)
   (CSU; UC)
   Hours: 48-54 lecture.
   Grading: Letter grade only.
   Introduction to contemporary media, artists, and visual languages. Explores impact of photography, video, print media, and computers on artists, arts, and society. Theories of media and visual communication will be studied as a means to develop an understanding of artistic and societal trends. Study of the contemporary uses of media to assess the evolution of media technologies in the arts.

8 Art of the Pre-Columbian Americas (3) [Cx]
   (CSU; UC)
   Hours: 48-54 lecture.
   Grading: Letter grade only.
   Study of the diverse artistic movements from the early beginnings of art of the Western World through 1400; how symbolism and artistic style reflect the daily life, philosophy, religion, values, and concerns of each culture and historical period.

9 Contemporary Media, Art and Visual Language (3)
   (CSU; UC)
   Hours: 48-54 lecture.
   Grading: Letter grade only.
   Introduction to contemporary media, artists, and visual languages. Explores impact of photography, video, print media, and computers on artists, arts, and society. Theories of media and visual communication will be studied as a means to develop an understanding of artistic and societal trends. Study of the contemporary uses of media to assess the evolution of media technologies in the arts.

10 Fundamentals of Design in Three Dimensions (4)
    (CSU; UC)
    Hours: 48-54 lecture; 48-54 laboratory.
    Grading: Letter grade only.
    In-depth introduction to the visual elements of three-dimensional design including color and surface treatment of form as well as the implications of time and environmental space. Emphasis on techniques of visual thinking and creative manipulation of media applied to three-dimensional projects.

11 Asian Art History (3)
   (CSU; UC)
   Hours: 48-54 lecture.
   Grading: Letter grade only.
   Survey of the art, architecture, religion, and history of south and southeast Asia, China, Korea, and Japan. Art styles and characteristics unique to each culture and their function within the ideology of that society are considered. Problems involved in viewing Asian art outside of its original cultural context are discussed at length.
32 Intermediate Drawing (4)  
(CSU; UC)  
Hours: 48-54 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Art 14.  
Advisory: Completion of Art 10.  
Creating drawings using significant works of art as inspiration. The visual expression of personal and social themes. Research, writings, discussions, and critiques encourage personal creative growth in a studio environment. May be taken twice.  
1002.10

34 Intermediate Painting (4)  
(CSU; UC)  
Hours: 48-54 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Art 16.  
Advisory: Completion of Art 10.  
Creating paintings using significant works of art as inspiration. The visual expression of personal and social themes. Research, writings, discussions, and critiques encourage personal creative growth in a studio environment. May be taken twice.  
1002.10

35 Intermediate Ceramics (3)  
(CSU; UC)  
Hours: 24-27 lecture; 72-81 laboratory.  
Grading: Letter grade only.  
Prerequisite: Art 18.  
Advisory: Completion of Art 12.  
Performance of tasks and procedures designed to further the student's ability to understand and manipulate clay and glazes and types of kiln firings, emphasizing creation of beautiful, utilitarian, well-made objects.  
1002.30

40 Advanced Ceramics (3)  
(CSU; UC)  
Hours: 24-27 lecture; 72-81 laboratory.  
Grading: Letter grade only.  
Prerequisite: Art 35.  
Advisory: Completion of Art 12.  
Advanced use of the potter's wheel and off-wheel construction methods. Designed to prepare students to continue working with clay and glazes, to seek markets for ceramic art and ceramic skills, and/or to transfer to an upper-division course. May be taken twice.  
1002.30

44 Mixed-Media Studio and Theory (3)  
(CSU; UC)  
Hours: 32-36 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Advisory: Completion of a course in art or photography.  
Exploration of unconventional uses of materials and interdisciplinary attitudes in 20th century art, the evolution of collage, assemblage, installation works, site specific, video, and performance artworks. Emphasis will be on studio projects and processes utilizing a variety of contemporary mixed-media and multi-media approaches. May be taken twice.  
0614.10

62A Illustration I (3)  
(CSU)  
Hours: 32-36 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Art 10 or 14.  
Study of significant works of art in the field of illustration and graphic design to increase awareness in the visual expression of social and individual concepts and ideas. Emphasis on the development of basic skills in visual communication.  
1013.00

62B Illustration II (3)  
(CSU)  
Hours: 32-36 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Art 62A.  
Illustration techniques and concepts with extensive emphasis on creating visual solutions to applied problems, stylistic and conceptual innovation, and portfolio development.  
1013.00

63 Introduction to Graphic Design (4)  
(CCU; UC)  
Hours: 48-54 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Introduction to the essential principles of digital imaging and design. Overview including historical aspects of the fields of art and design in relation to the rise of digital media and principles of portfolio development. Project-based experience, with current hardware and software used for design and printing of contemporary visual communications. May be taken twice.  
0614.60

64 History of Costume (3)  
(CU)  
Available also as Theatre 64)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Corequisite: Any course requiring the use of the digital media lab.  
Use of the computer graphics lab for class related and/or independent projects. May be taken four times, regardless of the unit combination.  
0614.60

70 Museum and Gallery Field Study (1)  
(Also available as Humanities 70 and Photography 70)  
(CSU)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Advisory: Completion of any art or photography course.  
Issues in contemporary art, photography, art history, and photo history are investigated through direct observation of museum and gallery exhibitions. Readings, research, and class discussion provide the foundation for student understanding and analysis of art (including drawing, painting, photography, mixed media, sculpture, installation, and new media) in a museum setting. Field trips are a required part of this course. May be taken four times.  
1001.00

82 Introduction to Multimedia (4)  
(CCU)  
Hours: 48-54 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Advisory: Completion of Art 10 and basic keyboarding skills are recommended.  
Introduction to digital media production for interactive media: the Web, CD-ROM, DVD-ROM, and interactive kiosks. Emphasis on developing visual language using contemporary tools and techniques for multimedia authoring with graphic and interactive software. Includes introduction to historical aspects and analysis of interactive applications. May be taken three times.  
0614.10

83 Internet and Web Design (4)  
(CSU)  
Hours: 48-54 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Advisory: Completion of Art 82.  
Principles of website production and design using HTML and streaming video software tools, such as Dreamweaver and Flash. Topics include: visual content design, movie basics, streaming audio and video, text/tables, animation, toolbar functions, libraries, buttons, tweening, masks, sound publishing, editing, interface design, and integration of Web software tools. May be taken three times.  
0614.30

89 Student Invitational Exhibition (4)  
(CSU)  
Hours: 48-54 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Limitation on Enrollment: Student must pass faculty review of creative project proposal and portfolio in December for the following Spring term course and exhibition.  
Honors course for highly motivated studio art and photography students who meet portfolio requirements. In-depth independent research involving critical evaluation of concepts and ideas in the context of contemporary artistic expression, as well as rigorous exploration of media and techniques. In conjunction with the Wignall Museum Gallery staff and art and photography faculty, student artists cooperatively undertake all phases of the complex task of mounting a professional quality exhibition of their artworks. Interested students should contact an art or photography faculty member no later than early November.  
1001.00

90A, B, C Art Honors Seminar (1)  
(CSU; UC credit limitations)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Honors component for Art. Topics of interest are chosen by the instructor and students, and are presented in a seminar format. Prerequisites and/or corequisites are required. May be taken four times with change in topic emphasis.  
1001.00

92A-H Special Topics: Art (.5-6)  
(CSU; UC credit limitations)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Special-interest course of varying length for students who wish further exploration in specific areas of art. Topics will be determined by the individual instructor and may cover the range of arts research in all forms of creative endeavor. This course, in combination with Art 92L, may be taken four times regardless of the unit combination. However, no single-subject, special-interest class may be repeated. May require corequisites and/or prerequisites based on the content of the course.  
1001.00
92LA-H Special Topics Laboratory: Studio Art (5-6)
(CSU; UC credit limitations)
Hours: 48-54 lecture, 48-54 laboratory.
Grading: Letter grade only.
Special-interest course of varying length for students who wish further exploration in specific areas of studio art. Topics will be determined by the instructor and may cover the range of arts research in all forms of creative endeavor. In combination with Art 92 may be taken four times regardless of the unit combination. However, no single-subject special-interest class may be repeated. May require corequisites and/or prerequisites based on the content of the course. 1001.00

98A, B, C Independent Study: Art (1, 2, 3)
(CSU and UC credit limitations)
Grading: Letter grade only.
Limitation on Enrollment: Instructor signature is required for registration. Special project course designed for the capable, well-motivated student. Each student explores and develops a project or a paper on a creative area of personal interest. Nature and extent of the project must be decided by student and instructor before the student may sign up for the course. Type and extent of the project determines the number of units allowed. May be taken three times, regardless of the unit combination.

400 Fundamentals of Animation (4)
(Degree-applicable)
Hours: 48-54 lecture, 48-54 laboratory.
Grading: Letter grade only.
Advisory: Completion of Art 10 and 30.
Introduction to the art and design of 2-D animation, the principles and practice of animation. Provides students a traditional education in the fundamentals of animation; animation terminology, tools, techniques, composition, and color in motion; and an overview of digital techniques. May be taken three times. 0614.40

407 History of Design (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Study of visual communication integrating typography and image. History of graphic design from the invention of writing to the present electronic age. Relationships between art movements, social settings, and graphic communications styles. Emphasis on Western design, with exploration of non-European cultures.

410 Ceramic Glazes (3)
(Degree-applicable)
Hours: 32-36 lecture, 48-54 laboratory.
Grading: Letter grade only.
Prerequisite: Art 18.
Introduction to materials, equipment, and processes used in making and firing ceramic glazes. May be taken four times.

412 Firing Techniques (3)
(Degree-applicable)
Hours: 24-27 lecture, 72-81 laboratory.
Grading: Letter grade only.
Prerequisite: Art 18.
Investigation of concepts and technologies related to firing of raku, low fire, salt, and high fire. Personal growth through individual experimentation is encouraged. May be taken four times.

433 Illustration Skills for Animators (3)
(Degree-applicable)
Hours: 24-27 lecture, 72-81 laboratory.
Grading: Letter grade only.
Prerequisite: Art 14 and 50.
Introduction to principles of image animation utilizing traditional media in preparation for digital or computer based media. Projects involve character development techniques, storyboards, and the study of movement, expression, weight, and style. May be taken twice.

468B C Art Digital Laboratory (1, 2)
(Degree-applicable)
Hours: 48-54 lecture, 48-54 laboratory.
Corequisite: Any course requiring the use of the digital media lab.
Use of the computer graphics lab for class related and/or independent projects. May be taken four times, regardless of the unit combination.

474 Identity System Design (4)
(Degree-applicable)
Hours: 48-54 lecture, 48-54 laboratory.
Corequisite: Art 63.
Examination of a range of technical issues including signal level, sample rate, and computer sound peripherals, as well as a range of aesthetic issues including sound design, effects, and mixing. Utilization of a range of digital audio equipment for mixing, effects, and equalization.

476 Sound for Multimedia Digital Productions (3)
(Degree-applicable)
Hours: 24-27 lecture, 72-81 laboratory.
Corequisite: Art 63.
Examination of a range of technical issues including signal level, sample rate, and computer sound peripherals, as well as a range of aesthetic issues including sound design, effects, and mixing. Utilization of a range of digital audio equipment for mixing, effects, and equalization.

478 Illustration on the Computer (3)
(Degree-applicable)
Hours: 32-36 lecture, 48-54 laboratory.
Prerequisite: Art 63.
Corequisite: Art 68B, 68C, 468B, 468C, or access to a Macintosh computer (G4 or higher, equipped with course appropriate software).
Advisory: Completion of Art 62A or 433.
Introduction to commercial illustration using the computer. Emphasis on mastering software and integrating its use into the problem-solving process of commercial assignments, ranging from editorial and promotional expression, to informational and children’s book illustration. May be taken twice.

480 Portfolio and Presentation (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Completion of majority of other course requirements in general art major, or graphic communications, or visual communications certificates is required.

Astronomy (Astron)

25 Planets and the Solar System (3)
(CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Math 410.
Overview of the solar system. Understand stars, moons, and other bodies in the solar system by understanding the processes that shape them. Use observations from telescopes and spacecraft, the scientific method, and basic concepts from physics, geology, and other sciences. NOTE: Students who have successfully completed Astronomy 35 may not take Astronomy 25.

26 Stars and Galaxies (3)
(CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Math 410.
Overview of the universe beyond our solar system. Understand stars and galaxies by understanding the processes that shape them. Use observations from telescopes and spacecraft, the scientific method, and basic physical concepts. Briefly consider relativity, spacetime, and the history and fate of the universe. NOTE: Students who have successfully completed Astronomy 36 may not take Astronomy 26.
35 Planets and the Solar System with Lab (4) (CSU; UC)
Hours: 48-54 lecture; 48-54 laboratory.
Grading: Letter grade only.
Advisory: Completion of Math 410.
Overview of the solar system. Understand planets, moons, and other bodies in the solar system by understanding the processes that shape them. Use observations from telescopes and spacecraft, the scientific method, and basic concepts from physics, geology, and other sciences. NOTE: Students who have successfully completed Astronomy 25 may not take Astronomy 35.
1911.00

36 Stars and Galaxies with Lab (4) (CSU; UC)
Hours: 48-54 lecture; 48-54 laboratory.
Grading: Letter grade only.
Advisory: Completion of Math 410.
Overview of the universe beyond our solar system. Understand stars and galaxies by understanding the processes that shape them. Use observations from telescopes and spacecraft, the scientific method, and basic physical concepts. Briefly consider relativity, spacetime, and the history and fate of the universe. NOTE: Students who have successfully completed Astronomy 26 may not take Astronomy 36.
1911.00

AUTOMOTIVE COLLISION REPAIR TECHNOLOGY (ACRT)

400 Basic Automotive Collision Repair (5) [Cx] (Degree-applicable)
Hours: 40-45 lecture; 120-135 laboratory.
Grading: Letter grade only.
Prerequisite: Automotive Collision Repair Technology 400.
Topics include: body and frame construction types; impact forces and associated damage to body alignment and mechanical components; adjustments of windows, doors, hoods, and trunks; and estimate writing. May be taken four times.
0949.00

410 Advanced Automotive Collision Repair (5) (Degree-applicable)
Hours: 40-45 lecture; 120-135 laboratory.
Grading: Letter grade only.
Prerequisite: Automotive Collision Repair Technology 400.
Further study of automotive collision repair. Topics include: body and frame construction types; impact forces and associated damage to body alignment and mechanical components; adjustments of windows, doors, hoods, and trunks; and estimate writing. May be taken four times.
0949.00

420 Basic Automotive Collision Refinishing (5) [Cx] (Degree-applicable)
Hours: 40-45 lecture; 120-135 laboratory.
Grading: Letter grade only.
Fundamentals of automotive collision refinishing. Topics include: surface preparation; painting equipment; undercoating primer-surfacers; solvents and reducers; and painting techniques. May be taken four times.
0949.00

430 Advanced Automotive Collision Refinishing (5) (Degree-applicable)
Hours: 40-45 lecture; 120-135 laboratory.
Grading: Letter grade only.
Prerequisite: Automotive Collision Repair Technology 420.
Continuing study of automotive collision refinishing. Emphasis on paints - types of materials, thinners, reducers and their application - and the development of painting skills. May be taken four times.
0949.00

450 Pinstriping, Flames, and Graphics (2) (Degree-applicable)
Hours: 16-18 lecture; 48-54 laboratory.
Grading: Letter grade only.
Prerequisite: Automotive Collision Repair Technology 400, 410, 420, or 430.
The art of design, graphics, pinstriping, and flame art. Students work with lines, colors, and comparison/contrast concepts to create special effects on passenger vehicles, using a wide range of different materials. May be taken four times.
0949.00

492A-H Special Topics: Automotive Collision Repair Technology (.5-.6) (Degree-applicable)
Hours: 16-18 hours/term lecture for each unit of credit.
Grading: Letter grade only.
Selected lecture topics in automotive collision repair. May be taken four times, regardless of the unit combination, however no single-subject, special-interest class may be repeated. May require corequisites and/or prerequisites, based upon the content of the course.
0949.00

492LA-H Special Topics Laboratory: Automotive Collision Repair Technology (.5-.6) (Degree-applicable)
Hours: 48-54 hours/term laboratory for each unit of credit.
Grading: Letter grade only.
Selected laboratory topics in automotive collision repair. May be taken four times, regardless of the unit combination, however no single-subject, special-interest class may be repeated. May require corequisites and/or prerequisites, based upon the content of the course.
0949.00

28 Automotive Electrical Systems (5) [Cx] (CSU)
Hours: 48-54 lecture; 96-108 laboratory.
Grading: Letter grade only.
Operation and service of automotive electrical systems. Emphasis on reading wiring diagrams and using test equipment to diagnose and troubleshoot electrical/electronic systems. Course supports the Student Learning Outcomes of the Automotive Technology and the Smog Check Technician Training programs by preparing students to take the Automotive Service Excellence (ASE) A6 Technician Certification exam or the BAR California A6 Equivalent exam. May be taken twice.
0948.00

28A Automotive Electrical Systems A (2.5) [Cx] (CSU)
Hours: 24-27 lecture; 48-54 laboratory.
Grading: Letter grade only.
Equivalent to the first half of Automotive Technology 28. Operation and service of batteries, starters, alternators/generators, and related components, plus headlamp systems and headlamp aiming. Charging and starting system testing and diagnosis are stressed. This course – together with Automotive Technology 28B – supports the Student Learning Outcomes of the Automotive Technology and the Smog Check Technician Training programs by preparing students to take the Automotive Service Excellence (ASE) A6 Technician Certification exam, or the BAR California A6 Equivalent exam. May be taken twice.
0948.00

28B Automotive Electrical Systems B (2.5) [Cx] (CSU)
Hours: 24-27 lecture; 48-54 laboratory.
Grading: Letter grade only.
Prerequisite: Automotive Technology 28A.
Equivalent to the second half of Automotive Technology 28. Operation and service of automotive lighting, accessories, and body electrical systems. Emphasis is on reading wiring diagrams and using test equipment to diagnose and troubleshoot systems. This course – together with Automotive Technology 28A – supports the Student Learning Outcomes of the Automotive Technology and the Smog Check Technician Training programs by preparing students to take the Automotive Service Excellence (ASE) A6 Technician Certification exam, or the BAR California A6 Equivalent exam. May be taken twice.
0948.00

400 Automobile Operation and Maintenance for Consumers (2) (Degree-applicable)
Hours: 24-27 lecture; 24-27 laboratory.
Grading: Letter grade only.
Information needed to become informed consumers of automotive service. Students learn how to save money on automobile operation, maintenance, and repair, and have the option of performing selected maintenance operations on their own vehicles. Operations include: checking and topping-off fluid levels, determining condition of belts and hoses, changing engine oil, inspecting the cooling system and battery, rotating tires, and checking tires and brakes.
0948.00

407 Introduction to Hybrid Vehicles (2.5) (Degree-applicable)
Hours: 24-27 lecture; 48-54 laboratory.
Grading: Letter grade only.
An introduction to the operational theory, maintenance, and other service requirements for gasoline-electric hybrid vehicles. Safety requirements specific to hybrid vehicles are stressed. May be taken twice.
0948.40
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</table>

**Required Courses**

- **Prerequisite:** Completion of Automotive Technology 10 and 15.
- **Grading:** Letter grade only.
- **Advisory:** Completion of Automotive Technology 418.

**COURSE DESCRIPTIONS**

- **417 Brakes (4) [Cx]**
  - **Hours:** 48-54 lecture; 48-54 laboratory.
  - **Grading:** Letter grade only.
  - **Prerequisite:** Completion of Automotive Technology 10 and 15.
  - **Description:** Diagnosis, service, and repair of disc and drum brake systems and related hydraulic, mechanical, and electrical systems. Anti-lock brake operation is introduced. Course supports the Student Learning Outcomes of the Automotive Technology program by preparing students to take the Automotive Service Excellence (ASE) A8 Technician Certification exam. The course may be taken twice.

- **418 Suspension and Steering Systems (4) [Cx]**
  - **Hours:** 48-54 lecture; 48-54 laboratory.
  - **Grading:** Letter grade only.
  - **Prerequisite:** Completion of Automotive Technology 10 and 15.
  - **Description:** Diagnosis, service, and repair of steering and suspension systems, including wheel and tire service, and two- and four-wheel alignments. Course supports the Student Learning Outcomes of the Automotive Technology program by preparing students to take the Automotive Service Excellence (ASE) A8 Technician Certification exam. May be taken twice.

- **419 Manual Drive Trains (4) [Cx]**
  - **Hours:** 48-54 lecture; 48-54 laboratory.
  - **Grading:** Letter grade only.
  - **Prerequisite:** Automotive Technology 10 and 15.
  - **Description:** Diagnosis, maintenance, repair, and overhaul of manual transmissions, transaxles, and drive trains, to include four-wheel and all-wheel drive systems. Course supports the Student Learning Outcomes of the Automotive Technology program by preparing students to take the Automotive Service Excellence (ASE) A3 Technician Certification exam. May be taken twice.

- **422 Fuel, Ignition, and Emission Control Systems (5) [Cx]**
  - **Hours:** 48-54 lecture; 96-108 laboratory.
  - **Grading:** Letter grade only.
  - **Prerequisite:** Automotive Technology 10 and 15.
  - **Description:** Operation and interrelationships of the fuel, ignition, emission control, and exhaust systems. Emphasis on the diagnosis of engine performance and related emissions. This course – together with Automotive Technology 423 – supports the Student Learning Outcomes of the Automotive Technology program by preparing students to take the Automotive Service Excellence (ASE) A8 Technician Certification exam, or the BAR California A8 Equivalent exam. May be taken twice.

- **425 Automatic Transmissions and Transaxes (5) (Cx) (Degree-applicable)**
  - **Hours:** 48-54 lecture; 96-108 laboratory.
  - **Grading:** Letter grade only.
  - **Prerequisite:** Automotive Technology 10 and 15.
  - **Description:** Diagnosis, service, and overhaul of automatic transmissions and transaxes. Special emphasis on the use of diagnostic equipment and methods for accurately determining transmission and transaxle conditions. Course supports the Student Learning Outcomes of the Automotive Technology program by preparing students to take the Automotive Service Excellence (ASE) A2 Technician Certification exam. The course may be taken twice.

- **426A Basic Automotive Air Conditioning Systems (2) (Cx) (Degree-applicable)**
  - **Hours:** 24-27 lecture; 24-27 laboratory.
  - **Grading:** Letter grade only.
  - **Prerequisite:** Automotive Technology 426A.
  - **Description:** Operation, service, and repair of automotive heating, ventilation, and air conditioning systems, with emphasis on environmental protection, including refrigerant recycling. Course provides the information necessary to qualify for refrigerant recovery, recycling, and handling certification by the United States Environmental Protection Agency (EPA), and – together with Automotive Technology 426B – supports the Student Learning Outcomes of the Automotive Technology program by preparing students to take the Automotive Service Excellence (ASE) A7 Technician Certification exam. May be taken twice.

- **426B Advanced Auto Air Conditioning and Climate Control Systems (4) (Cx) (Degree-applicable)**
  - **Hours:** 48-54 lecture; 48-54 laboratory.
  - **Grading:** Letter grade only.
  - **Prerequisite:** Automotive Technology 426A.
  - **Description:** Operation, service, and repair of automotive conditioning and climate control systems, with emphasis on diagnosis of electronic and computer control systems. This course – together with Automotive Technology 426A – supports the Student Learning Outcomes of the Automotive Technology program by preparing students to take the Automotive Service Excellence (ASE) A7 Technician Certification exam. May be taken twice.

- **427 Engine Operation and Service (5) (Cx) (Degree-applicable)**
  - **Hours:** 48-54 lecture; 96-108 laboratory.
  - **Grading:** Letter grade only.
  - **Description:** Automotive engine operation, service, and repair. Machine work and the use of specialized equipment to diagnose and test engine conditions is emphasized. Course supports the Student Learning Outcomes of the Automotive Technology program by preparing students to take the Automotive Service Excellence (ASE) A1 Technician Certification exam. May be taken twice.

- **430 Engine Rebuilding - Upper Engine (5) (Degree-applicable)**
  - **Hours:** 48-54 lecture; 96-108 laboratory.
  - **Grading:** Letter grade only.
  - **Prerequisite:** Automotive Technology 422.
  - **Description:** Computer control of the ignition, fuel, and emissions systems. Emphasis on diagnosis and correction of conditions affecting engine performance. This course – together with Automotive Technology 422 - supports the Student Learning Outcomes of the Automotive Technology program by preparing students to take the Automotive Service Excellence (ASE) A8 Technician Certification exam, or the BAR California A8 Equivalent exam. May be taken twice.

- **431 Engine Rebuilding - Lower Engine (5) (Degree-applicable)**
  - **Hours:** 48-54 lecture; 96-108 laboratory.
  - **Grading:** Letter grade only.
  - **Prerequisite:** Automotive Technology 426A.
  - **Description:** Provides the knowledge and skills needed by automotive machinists. Reconditioning of automotive gasoline and diesel engines, including inspection, measuring, and machining of valve train components and construction of cylinder head assemblies. May be taken four times.

- **435 High Performance Engine Building and Blueprinting (5) (Degree-applicable)**
  - **Hours:** 48-54 lecture; 96-108 laboratory.
  - **Grading:** Letter grade only.
  - **Prerequisite:** Completion of Automotive Technology 430 and 431.
  - **Description:** Students develop advanced skills in automotive machining operations, use of precision measuring tools, and high performance engine modification and assembly techniques. Upon completion of this course, students will be able to “blueprint” an engine to industry standards. May be taken four times.

- **435A High Performance Engine Blueprinting – Cylinder Heads (2.5) (Degree-applicable)**
  - **Hours:** 24-27 lecture; 48-54 laboratory.
  - **Grading:** Letter grade only.
  - **Prerequisite:** Completion of Automotive Technology 430 or sufficient automotive machine shop and high performance experience.
  - **Description:** Students develop advanced skills in automotive machining operations, use of precision measuring tools, and high performance cylinder head modification and assembly techniques. Upon completion of this course, students will be able to “blueprint” cylinder heads to industry standards. May be taken four times.

- **435B High Performance Engine Rebuilding – Cylinder Blocks (2.5) (Degree-applicable)**
  - **Hours:** 48-54 lecture; 48-54 laboratory.
  - **Grading:** Letter grade only.
  - **Prerequisite:** Completion of Automotive Technology 431 or sufficient automotive machine shop and high performance experience.
  - **Description:** Students develop advanced skills in automotive machining operations, use of precision measuring tools, high performance engine balancing, blueprinting, and cylinder block modification and assembly techniques. May be taken four times.

- **443 Clean Air Emission Control (4) (Degree-applicable)**
  - **Hours:** 48-54 lecture; 48-54 laboratory.
  - **Grading:** Letter grade only.
  - **Prerequisite:** Automotive Technology 423.
  - **Description:** Advisory: Training and/or experience equivalent to ASE certification in Electrical and Electronic Systems (A6), Engine Performance (A8), and Advanced Engine Performance and Emissions Systems (L1). Engine management and emissions control systems operation, testing, and regulations. This course, together with ASE A6, A8, and L1 certifications, satisfies the educational requirements for the Advanced Emission Specialist license awarded by the California Department of Consumer Affairs, Bureau of Automotive Repair. May be taken four times.
443B Advanced Clean Air Emission Control (2)  
(Degree-applicable)  
Hours: 24-27 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Prerequisite: Automotive Technology 443A.  
Advisory: Training and/or experience equivalent to ASE certification in Electrical and Electronic Systems (A6), Engine Performance (A8), and Advanced Engine Performance and Emissions Systems (L1).  
Advanced engine management and emissions control systems operation, testing, and regulations. This course - together with Automotive Technology 443B and ASE A6, A8, and L1 certifications - satisfies the educational requirements for the Advanced Emission Specialist license awarded by the California Department of Consumer Affairs, Bureau of Automotive Repair. May be taken four times.  
0948.00

450 General Automotive Technician A (12)  
(Degree-applicable)  
Hours: 144-162 lecture; 144-162 laboratory.  
Grading: Letter grade only.  
Prerequisite: Automotive Technology 443A.  
Advisory: Training and/or experience equivalent to ASE certification in Electrical and Electronic Systems (A6), Engine Performance (A8), and Advanced Engine Performance and Emissions Systems (L1).  
Advanced engine management and emissions control systems operation, testing, and regulations. Content is similar to other courses offered individually – such as Brakes; and Steering and Suspension – with more emphasis placed on development of marketable skills. May be taken twice.  
0948.00

455 General Automotive Technician B (12)  
(Degree-applicable)  
Hours: 144-162 lecture; 144-162 laboratory.  
Grading: Letter grade only.  
Designed for students who want the occupational training required for employment as an automotive service technician. Content is similar to other courses offered individually – such as Automotive Electrical Systems A; Fuel, Ignition and Emission Control Systems; and Basic Automotive Air Conditioning Systems – with more emphasis placed on developing marketable skills. May be taken twice.  
0948.00

471 Motorcycle Service, Tune-Up, and Maintenance (4)  
(Degree-applicable)  
Hours: 48-54 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Students develop the knowledge base and skills to perform motorcycle service, tune-ups, and maintenance. Topics include: service and tune-up schedules and their associated procedures; chassis and suspension systems; brakes, clutch, and drive systems; wheel care, including tires, wheel lacing, wheel truing, and balancing; general shop procedures; quality control; and safety procedures and protective equipment. May be taken four times.  
0948.30

492A-H Special Topics: Automotive Technology (5-6)  
(Degree-applicable)  
Hours: 16-18 hours/term for each unit of credit.  
Grading: Letter grade only.  
Special interest lecture course in specific automotive technology areas. Topics vary and are determined by the instructor. See the schedule of classes for current term emphasis. May require prerequisites and/or corequisites based upon the content of the course. May be taken four times regardless of the unit combination, however, no single-subject, special-interest class may be repeated.  
0948.00

492LA-H Special Topics Laboratory: Automotive Technology (5-6)  
(Degree-applicable)  
Hours: 48-54 hours/term for each unit of credit.  
Grading: Letter grade only.  
Special interest laboratory course in specific automotive technology areas. Topics vary and are determined by the instructor. See the schedule of classes for current term emphasis. May require prerequisites and/or corequisites based upon the content of the course. May be taken four times regardless of the unit combination, however, no single-subject, special-interest class may be repeated.  
0948.00

496A,B,C,D Internships in Automotive Careers (1, 2, 3, or 4)  
(Degree-applicable)  
Hours: 48-54 hours/term for each unit of credit.  
Grading: Letter grade only.  
Internship in cooperation with automotive service and repair employers. Designed to apply knowledge and learn new skills, directly related to the student’s program of study. Placement is arranged through the instructor. Participation requirements may vary with the job setting. Additional prerequisites and/or corequisites may be required. May be taken four times, for a maximum of 6 units credit.  
0948.00

AVIATION MAINTENANCE TECHNOLOGY (AMT)

10 Aviation Materials, Processes, Inspections, Regulations and Safety (4.5) (Cx)  
(formerly Aeronautics 10)  
(CSU)  
Hours: 72-81 lecture.  
Grading: Letter grade only.  
Corequisite: Aviation Maintenance Technology 13AB or 14ABC.  
Aerospace materials, hardware, manufacturing practices and safety, blueprint reading, inspection techniques, aircraft servicing, cleaning and corrosion control, and FAA regulations as required for an FAA airframe and/or powerplant technician’s license.  
0950.00

22 Powerplant Systems and Components II (4.5) (Cx)  
(formerly Aeronautics 22)  
(CSU)  
Hours: 72-81 lecture.  
Grading: Letter grade only.  
Prerequisite: Aviation Maintenance Technology 10 and 11.  
Reciprocating and turbine aircraft engine instrument, electrical, lubrication, and ignition systems and components. Related training for the FAA powerplant maintenance technician’s license.  
0950.20

21 Powerplant Systems and Components I (4.5) (Cx)  
(formerly Aeronautics 21)  
(CSU)  
Hours: 72-81 lecture.  
Grading: Letter grade only.  
Prerequisite: Aviation Maintenance Technology 10 and 11.  
Reciprocating and turbine aircraft engine instrument, electrical, lubrication, and ignition systems and components. Related training for the FAA powerplant maintenance technician’s license.  
0950.20

11 Aeronautical Science (4.5) (Cx)  
(formerly Aeronautics 11)  
(CSU)  
Hours: 72-81 lecture.  
Grading: Letter grade only.  
Corequisite: Aviation Maintenance Technology 13AB or 14ABC.  
Aircraft mathematics, physics, aerodynamics and flight controls, weight and balance calculations, and basic AC and DC electricity required for an FAA airframe and/or powerplant technician’s license.  
0950.00

20 Powerplant Theory and Maintenance (4.5) (Cx)  
(formerly Aeronautics 20)  
(CSU)  
Hours: 72-81 lecture.  
Grading: Letter grade only.  
Corequisite: Aviation Maintenance Technology 10 and 11.  
Theory, fundamentals, construction, maintenance, and operation of reciprocating and turbine aircraft engines. Related training for the FAA powerplant maintenance technician’s license.  
0950.00

14B,C,D General Aeronautics Laboratory (1-1.6-1)  
(formerly Aeronautics 14B,C,D)  
(CSU)  
Hours: 48-54 laboratory.  
Grading: Letter grade only.  
Corequisite: Aviation Maintenance Technology 10 or 11 (may be taken previously).  
General aeronautics laboratory course to fulfill FAA practical aeronautical applications in aerodynamics, physics, weight and balance, FAA and manufacturer’s publications, aircraft materials and processes, blueprint reading, aircraft servicing, electricity and mathematics. May be taken three times.  
0950.00

11  Aeronautical Science (4.5) (Cx)  
(formerly Aeronautics 11)  
(CSU)  
Hours: 72-81 lecture.  
Grading: Letter grade only.  
Corequisite: Aviation Maintenance Technology 13AB or 14ABC.  
Aircraft mathematics, physics, aerodynamics and flight controls, weight and balance calculations, and basic AC and DC electricity required for an FAA airframe and/or powerplant technician’s license.  
0950.00

11A,B General Aeronautics Laboratory (1.5-1.5)  
(formerly Aeronautics 11A,B)  
(CSU)  
Hours: 72-81 laboratory.  
Grading: Letter grade only.  
Corequisite: Aviation Maintenance Technology 10 or 11 (may be taken previously).  
General aeronautics laboratory course to fulfill FAA practical aeronautical applications in aerodynamics, physics, weight and balance, FAA and manufacturer’s publications, aircraft materials and processes, blueprint reading, aircraft servicing, electricity and mathematics. May be taken three times.  
0950.00

14A,B  Powerplant Laboratory (4) (formerly Aeronautics 14A,B)  
(CSU)  
Hours: 72-81 laboratory.  
Grading: Letter grade only.  
Corequisite: Aviation Maintenance Technology 10 and 11 (may be taken previously).  
General aeronautics laboratory course to fulfill FAA practical aeronautical applications in aerodynamics, physics, weight and balance, FAA and manufacturer’s publications, aircraft materials and processes, blueprint reading, aircraft servicing, electricity and mathematics. May be taken three times.  
0950.00

20 Powerplant Theory and Maintenance (4.5) (Cx)  
(formerly Aeronautics 20)  
(CSU)  
Hours: 72-81 lecture.  
Grading: Letter grade only.  
Corequisite: Aviation Maintenance Technology 10 and 11.  
Theory, fundamentals, construction, maintenance, and operation of reciprocating and turbine aircraft engines. Related training for the FAA powerplant maintenance technician’s license.  
0950.20

21 Powerplant Systems and Components I (4.5) (Cx)  
(formerly Aeronautics 21)  
(CSU)  
Hours: 72-81 lecture.  
Grading: Letter grade only.  
Prerequisite: Aviation Maintenance Technology 10 and 11.  
Reciprocating and turbine aircraft engine instrument, electrical, lubrication, and ignition systems and components. Related training for the FAA powerplant maintenance technician’s license.  
0950.20
23A,B,C Powerplant Aeronautics Laboratory
(1-1-1-1-1-1)
(formerly Aeronautics 23A,B,C)
(CSU)
Hours: 72-81 laboratory.
Grading: Letter grade only.
Prerequisite: Aviation Maintenance Technology 10 and 11.
Corequisite: Aviation Maintenance Technology 20, 21, or 22 (may be taken previously).
Theory, fundamentals, construction, maintenance, inspection, overhaul and operation of reciprocating and turbine aircraft engines. Powerplant systems and components inspection and overhaul. Related training for the FAA powerplant maintenance technician's license. May be taken three times. 0950.20

24A,B,C,D,E,F Powerplant Aeronautics Laboratory
(1-1-1-1-1)
(formerly Aeronautics 24A,B,C,D,E,F)
(CSU)
Hours: 48-54 laboratory.
Grading: Letter grade only.
Prerequisite: Aviation Maintenance Technology 10 and 11.
Corequisite: Aviation Maintenance Technology 20, 21, or 22 (may be taken previously).
Theory, fundamentals, construction, maintenance, inspection, overhaul and operation of reciprocating and turbine aircraft engines. Powerplant systems and components inspection and overhaul. Related training for the FAA powerplant maintenance technician's license. May be taken three times. 0950.20

30 Airframe Structures (4.5) [Cx]
(formerly Aeronautics 30)
(CSU)
Hours: 72-81 lecture.
Grading: Letter grade only.
Prerequisite: Aviation Maintenance Technology 10 and 11.
Corequisite: Aviation Maintenance Technology 33ABC or 34ABCDEF.
Aircraft metallic and nonmetallic structural fabrication, inspection, and repair methods. Related training for FAA airframe maintenance technician's license. 0950.10

31 Airframe Primary Systems (4.5) [Cx]
(formerly Aeronautics 31)
(CSU)
Hours: 72-81 lecture.
Grading: Letter grade only.
Prerequisite: Aviation Maintenance Technology 10 and 11.
Corequisite: Aviation Maintenance Technology 33ABC or 34ABCDEF.
Aircraft landing gear, hydraulic, pneumatic, fuel, and electrical system inspection and repair methods. Related training for FAA airframe maintenance technician's license. 0950.10

32 Airframe Auxiliary Systems (4.5) [Cx]
(formerly Aeronautics 32)
(CSU)
Hours: 72-81 lecture.
Grading: Letter grade only.
Prerequisite: Aviation Maintenance Technology 10 and 11.
Corequisite: Aviation Maintenance Technology 33ABC or 34ABCDEF.
Aircraft cabin atmosphere, instrument, communication, navigation, avionics, position, warning, ice and rain control, and fire protection systems. Related training for FAA airframe maintenance technician's license. 0950.10

33A,B,C Airframe Laboratory (1.5-1.5-1.5)
(formerly Aeronautics 33A,B,C)
(CSU)
Hours: 72-81 laboratory.
Grading: Letter grade only.
Prerequisite: Aviation Maintenance Technology 10 and 11.
Corequisite: Aviation Maintenance Technology 20, 21, or 22 (may be taken previously).
Airframe laboratory course to fulfill FAA requirements for practical airframe experience. Subjects are metallic and nonmetallic structural fabrication, inspection, and repair; welding, rigging and assembly; and airworthiness inspection. May be taken three times. 0950.10

34A,B,C,D,E,F Airframe Laboratory (1-1-1-1-1-1)
(formerly Aeronautics 34A,B,C,D,E,F)
(CSU)
Hours: 48-54 laboratory.
Grading: Letter grade only.
Prerequisite: Aviation Maintenance Technology 10 and 11.
Corequisite: Aviation Maintenance Technology 30, 31, or 32 (may be taken previously).
Airframe laboratory course to fulfill FAA requirements for practical airframe experience. Subjects are airframe electrical, hydraulic, pneumatic, instruments, landing gear, fuel, cabin atmosphere, ice and rain, fire protection, navigation, communication, and position and warning systems. May be taken three times. 0950.10

492-H Special Topics: Aviation Maintenance Technology (5-6)
(formerly Aeronautics 492LA-H)
Hours: 16-18 hours/term lecture for each unit of credit.
Grading: Letter grade only.
(Degree-applicable)
Special topic course in specific aeronautics areas. Topics identified by the instructor. May be taken four times regardless of the unit combination. However, no single-subject, special-interest class may be repeated. May require corequisites and/or prerequisites based on the content of the course. 0950.00

492LA-H Special Topics Laboratory: Aviation Maintenance Technology (5-6)
(formerly Aeronautics 492LA-H)
Hours: 48-54 hours/term laboratory for each unit of credit.
Grading: Letter grade only.
(Degree-applicable)
Selected laboratory topics for students who desire in-depth exploration in specialized areas of airframe and powerplant. May be taken four times. 0950.00

501 Aeronautics Laboratory Projects (1)
(formerly Aeronautics 501)
(Degree-applicable)
Non-degree-applicable
Hours: 48-54 self-paced laboratory.
Grading: Letter grade only.
Limitation on Enrollment: Instructor signature required for registration, based on hours/projects.
For students needing additional coursework to complete the number of lab projects and hours required by the Federal Aviation Administration (Part 147 of the Federal Aviation Regulations) for program certification. Topics include: safety, environmental regulations and guidelines as applied to individual projects, tool and equipment applications, lab procedures, required documentation, airworthiness standards, and project evaluation. May be taken four times. 0950.00

BIOLOGY (Biol)

1 General Biology (4)
(CSU; UC credit limitations)
Hours: 48-54 lecture; 48-54 laboratory.
Grading: Letter grade only.
A survey of the biological principles that govern living organisms from their cellular to their ecological organization. Involves laboratory and field experiences. Meets general education requirement. 0401.00

2 Environmental Biology (4)
(CSU; UC)
Hours: 48-54 lecture; 48-54 laboratory.
Grading: Letter grade only.
An overview of ecosystem structure and function, with critical evaluation of human-caused ecological problems. Topics include: overpopulation, resource depletion, pollution, global warming, habitat fragmentation, and loss of biodiversity. Meets general education requirement. 0301.00

3 California Natural History (4)
(CSU; UC)
Hours: 48-54 lecture; 48-54 laboratory.
Grading: Letter grade only.
An ecological introduction to California's natural communities. Lecture topics include: energetics, materials cycling, succession, and characteristics of natural communities. Laboratory stresses interrelationships among flora and fauna, geology, and climate, with emphasis on field recognition. This course is recommended for teacher preparation. 0408.00

4 Field Botany (4)
(CSU; UC credit limitations)
Hours: 32-36 lecture; 96-108 laboratory.
Grading: Letter grade only.
The biology of California plant communities emphasizing taxonomic field identification, ecology, and evolution. 0402.00

5 Introduction to Cell and Molecular Biology (4)
(CSU; UC credit limitations)
Hours: 48-54 lecture, 48-54 laboratory.
Grading: Letter grade only.
Provides a basic understanding of the process of life at the molecular and cellular level. Emphasis on structure and function relationships, molecular aspects of inheritance, the processing and expression of genetic information, evolutionary relationships at the molecular level, and recombinant DNA techniques. Lab and field experiences. 0401.00

10 Concepts in Biology (3)
(CSU; UC credit limitations)
Hours: 48-54 lecture.
Grading: Letter grade only.
Integrated approach to the major biological themes and principles common to all living things. The position of the human species in nature. 0401.00

10L. Elements of Biology Laboratory (1)
(CSU; UC credit limitations)
Hours: 48-54 laboratory.
Grading: Letter grade only.
Prerequisite: Biology 10 or 12.
Hands-on approach to the principles and concepts of general biology for the non-major. Students investigate topics ranging from the cellular level to ecosystems. Both laboratory and field studies may be used to explore the relevance of biology to an informed citizenry. 0401.00
11 Evolution, Sex, and Behavior (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
The dynamics, organization, and evolutionary origins of animal social structures, including human societies. Emphasis on the selective pressures that shape animal behavior and the relationships of behavioral traits to the reproductive success of the organism. Includes discussion of various forms of competition, nepotism, and altruistic behavior in a wide variety of animal species, including humans.  
0401.00

12 Introduction to Human Genetics (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
General introduction to the fundamentals of human heredity. Topics include patterns of inheritance, DNA structure and function, the role of mutation in genetic diseases and cancer, the interaction between genes and the environment, and recent advances in biotechnology and its impact on society.  
0401.00

14 Health Science (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Human health and wellness. Topics include: mental health; nutrition; abuse of drugs, alcohol and tobacco; sexually transmitted diseases and other communicable and non-communicable diseases; physical fitness; and many other aspects of positive health. May satisfy the health education unit requirement for a teaching credential in the state of California.  
0837.00

16 Bioethics (3)  
(CSU UC credit pending)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
A survey of ethical issues in biology. Students investigate dilemmas in biology and apply ethical reasoning to specific issues. Topics may include, but are not limited to, genetic manipulation in agriculture and medicine, human and animal experimentation, stem cell research, environmental conservation, and global warming.  
0401.00

20 Human Anatomy (4)  
(CSU; UC)  
Hours: 48-54 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Eligibility for Reading 450 as determined by the Chaffey assessment process, or completion of Reading 550.  
Advisory: Eligibility for English 1A as determined by the Chaffey assessment process, or completion of English 450 or English as a Second Language 450.  
A systematic study of the microscopic and macroscopic structures of the human body. Emphasis on cell structures, skeletal, muscular, respiratory, circulatory, nervous, digestive, excretory, endocrine, and reproductive systems. Includes clinical considerations and disorders of these systems.  
0410.00

22 Human Physiology (4)  
(CSU; UC)  
Hours: 48-54 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Biology 20, and Chemistry 9 or 10 or 1 year of high school chemistry.  
The dynamic nature of life processes in the human body, including the physical, chemical, and biological functions and interrelations of the various organ systems. Lab emphasizes experimentation and scientific reasoning.  
0410.00

23 General Microbiology (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Biology 22, or Biology 50 and Chemistry 10 or high school chemistry.  
Introduction to microbiology, with strong emphasis on microorganisms pathogenic to humans. Topics include: microbial morphology, genetics, taxonomy, metabolism, and relationship to disease; mechanisms of controlling microbes; and immunology.  
0403.00

23L General Microbiology Laboratory (2)  
(CSU; UC)  
Hours: 96-108 laboratory.  
Grading: Letter grade only.  
Corequisite: Biology 23 (may be taken previously).  
Introduction to microbiology laboratory techniques. Methods of culturing, staining, biochemically analyzing, and classifying microorganisms.  
0403.00

30 Beginning Medical Terminology (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Applied medical etymology including the origin, correct spelling, pronunciation, meaning, and current usage of common medical terms, disorders, and medical treatments in the context of body systems. Application of relevant vocabulary to clinical records and reports, emphasizing roots, prefixes, infixes, suffixes, medical abbreviations, symbols, and terms common in patients' records and laboratory reports.  
0401.00

50 Core Biology (4)  
(CSU; UC)  
Hours: 48-54 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Eligibility for Mathematics 25 as determined by the Chaffey assessment process, or completion of Mathematics 425.  
Advisory: Completion of Chemistry 10.  
Comprehensive introduction to the essential principles of biology with emphasis on cellular structure and function. Laboratory includes instrumentation, experimental design, and data analysis common in the biological sciences. Recommended for majors in biology and related fields.  
0401.00

52 General Botany (5)  
(CSU; UC credit limitations)  
Hours: 48-54 lecture; 96-108 laboratory.  
Grading: Letter grade only.  
Prerequisite: Biology 50.  
Introduction to the developmental and comparative morphology, function, heredity, physiology, and evolution of vascular plants and bryophytes.  
0402.00

55 Vertebrate Zoology (5)  
(CSU; UC)  
Hours: 48-54 lecture; 96-108 laboratory.  
Grading: Letter grade only.  
Prerequisite: Biology 50.  
Biological of vertebrate animals emphasizing evolutionary history, reproduction, growth and development, and a functional survey of organ systems. Laboratory includes sections on histology, embryology, and a comparative study of vertebrate systems.  
0407.00

56 Invertebrate Zoology (4)  
(CSU; UC)  
Hours: 48-54 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Biology 50.  
Biological of invertebrate animals emphasizing anatomy, systematics, ecology, and evolutionary relationships. Laboratory is primarily a survey of the major invertebrate phyla.  
0407.00

63 Populations Biology (4)  
(CSU; UC)  
Hours: 48-54 lecture; 48-54 laboratory plus 8 hours special laboratory to be scheduled by the instructor.  
Grading: Letter grade only.  
Prerequisite: Biology 50.  
Introduction to the principles, theories, and methods of population biology.  
0401.00

90 Seminar: Biology (2)  
(CSU; UC credit limitations)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Admission is by competitive written application closing Friday of week 14 of the preceding term.  
Prerequisite: Biology 50.  
Student-oriented discussions centered around individual presentations of previously selected biological concepts, subjects, and materials. May be taken three times, however, no single-subject, special-interest seminar class may be repeated.  
0401.00

92A-H Special Topics: Biology (.5-6)  
(CSU; UC credit limitations)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Pursues certain specializations in the biological sciences. See class schedule for the current topic. May be taken three times regardless of the unit combination, however, no single-subject, special-interest topic may be repeated. May require prerequisites and/or corequisites, based on the content of the course.  
0401.00

92LA-H Special Topics Laboratory: Biology (.5-6)  
(CSU; UC credit limitations)  
Hours: 48-54 hours/term laboratory for each unit of credit.  
Grading: Letter grade only.  
Topics of special interest or specific areas of specialization in biology, with emphasis on laboratory skills, procedures, and techniques not covered in the regular curriculum. See class schedule for the current topic. May be taken three times regardless of the unit combination, however, no single-subject, special-interest topic may be repeated. May require prerequisites and/or corequisites, based on the content of the course.  
0401.00

98A, B, C Independent Study: Biology (1, 2 or 3)  
(CSU and UC credit limitations)  
Grading: Letter grade only.  
Limitation on Enrollment: Instructor signature is required for registration. For the student who is capable and has the desire to explore and develop an independent project in the biological sciences. Before registering, student and instructor must reach agreement concerning subject and scope of the project. Individual inquiry, special techniques, and selected readings apply. May be taken four times regardless of the unit combination, however, no project subject may be repeated.  
0401.00

424 Anatomy and Physiology (3) [Ce]  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Biology 30 and 500, or one year of high school biology.  
Human anatomy and physiology with emphasis on the structures and functions of the organ systems. Course is primarily intended for students entering vocational programs.  
0410.00
424L Anatomy and Physiology Laboratory (1)  
(Degree-applicable)  
Hours: 48-54 laboratory.  
Grading: Letter grade only.  
Corequisite: Biology 424 (may be taken previously).  
Advisory: Completion of Biology 30 and 500, or one year of high school biology.  
Anatomy and physiology of organ systems from cell through system levels. Important concepts may be illustrated by means of computer simulations, laboratory equipment, and other diagnostic tools. Course is primarily intended for students entering vocational programs.  
0410.00

500 Basic Biological Concepts (1)  
(Non-degree-applicable)  
Hours: 16-18 lecture.  
Grading: Pass/No Pass grade only.  
Focus on basic biological concepts. Course is intended to prepare students for success in general education science courses or pre-health professional courses. Emphasis on study skills and test-taking strategies.  
0401.00

Botany  
(SEE BIOLOGY)

Broadcasting (BRDCAST)

3 Survey of Broadcasting and Electronic Media (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Survey of the history, development, and importance of radio and television broadcasting, including international events. Introduces the aesthetic, cultural, political, social, and technical aspects of telecommunications. Emphasis on theory, research, operations, legal and regulatory issues of commercial/noncommercial broadcasting, popular media, public access, internet, and related emerging technologies.  
0604.00

55 Broadcast Audio and Announcing (3)  
(CSU)  
Hours: 32-36 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Principles of digital audio production, digital recording, microphone use and placement, sound effects, and music/audio mixing. Practical experience with microphones, multi-track digital/audio recording and mixing, and control-board cueing. Digitizing and mixing compact disc, DVD, audio/video, and analog sources with music, the spoken word, voice-over narration, and sound effects. Integration of audio into dance, film, music, radio, television, and theatre productions. Study of F.C.C. rules and regulations pertinent to the broadcast industry.  
0604.00

60 Television Production (3)  
(CSU)  
Hours: 32-36 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
0604.20

62 Multi-Camera Television Production (3)  
(CSU)  
Hours: 32-36 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Advisory: Possession of basic computer skills. Multi-camera studio and event production, including television programming concepts, directing, scriptwriting, and studio and master control operations. Additional topics include: studio lighting equipment placement, lighting board operation, video signal engineering, multi-camera angle editing, multi-camera line switching techniques for live broadcasts, and critical and applied aspects of studio configured camera operations. Students coordinate cameras and on-screen performers, and collaborate with studio and master control-room personnel, to produce, direct, and edit studio and remote field productions. May be taken 4 times.  
0604.20

65 Radio Production (2)  
(CSU)  
Hours: 16-18 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Advisory: Possession of basic computer skills. Production of various broadcast and automated media programming. Application of advanced techniques in the operation of streaming audio, digital multi-track recording, editing, and mixing. Study of current FCC rules and regulations. Students examine and explore advanced concepts, focusing on aesthetics, announcing, creativity, psychoacoustics, and sound design. May be taken four times.  
0604.10

70 Applied Television Postproduction (3)  
(CSU)  
Hours: 32-36 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Broadcasting 62 or 65. Advanced television course, exposing students to actual television and film post-production situations and field experiences. Students prepare videotape materials for broadcast and distribution, in addition to specializing in particular production areas, such as camera, audio, production supervision, floor managing, switching, video control, videotape recording, editing, writing, storyboard, or field production. Students from the photography, graphic arts, and theatre disciplines are encouraged to enroll and contribute to individual productions. May be taken four times.  
0604.20

92A-H Special Topics: Broadcasting (.5-6)  
(CSU)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Special interest lecture course for students who wish further exploration in the field of broadcasting. Topics will vary and will be determined by the instructor. See the schedule of classes for current term emphases. May be taken four times regardless of the unit combination, however, no single-subject special interest class may be repeated. May require prerequisites and/or corequisites based upon the content of the course.  
0604.00

92A-H Special Topics Laboratory: Broadcasting (.5-6)  
(CSU)  
Hours: 48-54 hours/term laboratory for each unit of credit.  
Grading: Letter grade only.  
Special interest laboratory course for students who wish further exploration in the field of broadcasting. Topics will vary and will be determined by the instructor. See the schedule of classes for current term emphases. May be taken four times regardless of the unit combination, however, no single-subject special interest class may be repeated. May require prerequisites and/or corequisites based upon the content of the course.  
0604.00

98A,B,C Independent Study: Broadcasting (1, 2, or 3)  
(CSU credit limitations)  
Grading: Letter grade only.  
Limitation on Enrollment: instructor signature is required for registration. Designed for the capable and well-motivated student who wishes to pursue a special area of broadcasting, or a more advanced project in broadcasting than is offered in the regular program. Students who participate in this program must have completed introductory courses or have shown a skill greater than that necessary for completion of established curriculum offerings. The nature and extent of the project must be determined by the student and the instructor before the student registers, since the extent of the project determines the number of units allowed. May be taken twice, regardless of the unit combination.  
0604.00

47A High-Definition Television Production (3)  
(Degree-applicable)  
Hours: 32-36 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Advisory: Basic computer skills are recommended. Visual theory, techniques, and methodology of high-definition cinematography applied to the creation and refinement of dynamic television stories. Integration of Advanced Television Systems Committee (ATSC) broadcast technologies with widescreen cinematography. Emphasis on aesthetic enhancements in the filming and editing of widescreen television programming. Students collaboratively produce and/or edit a high-definition video project. May be taken four times.  
0604.20

Business (BUS)  
(ALSO SEE BUSINESS: MANAGEMENT AND BUSINESS: PARALEGAL STUDIES)

10 Introduction to Business (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
The American business system within its economic and social environments. A conceptual approach relating business and its legal forms to society as a whole. Examination of the scope, function, and organization of modern business, including environmental considerations, management challenges, ethics issues, and the use of technology to manage information. Emphasis on business operations in today's global competitive business environment.  
0501.00

13 Professional Selling (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Concepts and techniques used to sell ideas, products and services, especially the psychological and social aspects of persuasion. Effective tactics in prospecting, pre-opening planning, securing appointments, preparing and making sales presentations, closing strategies, follow-up and maintaining customer relations, and managing a sales territory. Emphasis on problem-solving.  
0509.40

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Chaffey College
28A Business Law I (3) (CSU; UC credit limitations)
Hours: 48-54 lecture.
Grading: Letter grade only.
Introduction to principles of American law, federal and state court systems, the Uniform Commercial Code, agency, and due process. Comprehensive study of contract and tort law, criminal law as applied to business, and business ethics. Students analyze laws and rules, then apply appropriate concepts to factual scenarios in written and oral arguments. 0505.00

28B Business Law II (3) (CSU; UC credit limitations)
Hours: 48-54 lecture.
Grading: Letter grade only.
Prerequisite: Business 28A.
Special applications of law in business. Comprehensive study of commercial paper, creditors' rights, secured transactions, agency and employment, partnerships, corporations, personal and real property, and governmental regulation of business. Students analyze laws and rules, then apply appropriate concepts to factual scenarios in written and oral arguments. 0505.00

40 Marketing Principles (3) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Business 10.
Principles and methods of marketing as practiced by successfully managed business firms. Course is management-oriented, covering demand analysis, forecasting, product development, price determination, distribution channels, material handling, advertising, personal selling, and global and Internet marketing. 0509.00

45 Small Business Ownership and Management (3) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Business 10.
Concepts and techniques related to the ownership, management, and operating challenges of a small firm, from the viewpoint of a present or potential traditional and/or electronic commerce business owner. The basics of locating, financing, merchandising, buying, pricing, inventory and credit control, and public and personnel relations. 0506.40

49 Business Decisions Using Basic Quantitative Tools (3) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Business and management decision-making using basic quantitative tools. Managerial decisions in the areas of marketing, finance, accounting, real estate, insurance, transportation, and logistics. Examples include markups, markdowns, discounts, simple interest, depreciation, financial ratios, compound interest, investment decisions, inventory decisions, and payroll. Instruction in the use of the electronic business calculator is an integral part of the coursework. Students must supply their own business calculator. 0501.00

55 Advertising (3) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Historical, economic, social, and psychological appeal of advertising. Practical and psychological aspects of product packaging, trademarks, and color. Production techniques for the basic advertising media. Advertising management techniques, campaign scheduling, budgeting, and evaluation. Career opportunities and trends. 0509.10

60 Business Ethics (3) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Exploration of various theories and commonly occurring business ethics issues. Systems approaches for making business decisions that are responsible, practical, and defendable. Benefits of implementing value-based business strategies to achieve competitive advantage and profits. Course focus is on systemic implementation of ethical and socially responsible tools, and the integration of ethics into workplace operations. 0506.00

61 Introduction to Global Business (3) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Overview of global business concepts and decision-making, with an emphasis on cultural differences. Analyze the social, cultural, legal, environmental, political, technological, and competitive trends within international business and examine the operation and performance of multinational corporations. 0508.00

402 Introduction to Import/Export (3) (Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Business 61 or equivalent.
Overview of international trade finance. Sources and types of financing including trade finance and governmental regulation of business. Students must supply their own business calculator. 0509.10

430 Business Plan Preparation (1.5) (Degree-applicable)
Hours: 24-27 lecture.
Grading: Letter grade only.
Advisory: Completion of Accounting and Financial Services 465 and Business 45.
Overview of entrepreneurship. Emphasis on the practical aspects of developing a business plan and applying the necessary methods, techniques, and skills for starting and owning an enterprise. Topics include: identification of trends and opportunities, market analysis, promotional and sales tactics, evaluating business locations and e-commerce potential, and financial strategies. 0506.10

435 Marketing and the Law (3) (Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Business 28A.
Introduction to the fundamentals of legal principles relevant to the marketing of goods and services. Impact of the law on core marketing activities such as product development, distribution, promotion, and sales. Effect of the law on current marketing trends. 0509.00

492A-H Special Topics: Business (.5-6) (Degree-applicable)
Hours: 16-18 hours/term lecture for each unit of credit.
Grading: Letter grade only.
Specializations in business. See class schedule for current topics. May be taken four times regardless of the unit combination. However, no single-subject, special interest class can be repeated. May require corequisites and/or prerequisites based on the content of the course. 0501.00

4501,00

496A, B, C, D Internships in Business (1, 2, 3, or 4) (Degree-applicable)
Hours: 60 hours/term (unpaid) or 75 hours/term (paid) on-site work experience for each unit of credit.
Grading: Letter grade only.
Limitation on Enrollment: Consent of Business program coordinator is required for registration.
Corequisite: Concurrent enrollment in any Chaffey College course.
Supervised internship in cooperation with private, public, and/or non-profit sector employers. Designed to apply knowledge and learn new skills, directly related to the student’s program of study, outside of the normal classroom environment. Placement is arranged through the instructor. Participation requirements may vary with the job setting. May be taken four times, for a maximum of six units credit. 0501.00

BUSINESS: MANAGEMENT (BUSMGT)

11 Retail Merchandising and Management (3) (also available as Fashion Merchandising 11) (formerly Management 11) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Role of retailing in serving the needs of the community. Analysis of consumer needs, store location, financial requirements, and legal process of starting a retail operation. Planning for store layout, merchandise mix, vendor negotiation, pricing, displaying, advertising, selling, and controlling of merchandise. 0506.50
13 Supply Chain Management (3) (Cx)
(formerly Management 432) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Tools and techniques for design and improvement of any supply chain through the optimal use of information, materials, and technology to improve efficiency and reduce costs. Integration of outside suppliers and customers into an organization’s supply chain. Overview of career opportunities within the field. 0510.00

14 Transportation Management (3) (Cx)
(formerly Management 434) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Traffic management principles and techniques that facilitate distribution of the world’s commerce. Analysis of the major forms of transportation – motor, rail, air, water, pipeline, inter-modal, and international – and their integration into a distribution system. Carrier management and selection, including rate structures, scheduling, outsourcing, private fleet operations, and transportation customers. Governmental regulations on tariffs and transportation of hazardous materials. 0510.00

40 Introduction to Management (3)
(formerly Management 40) (CSU: UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
A survey of management concepts, basic functions, and skills as they apply at all levels within the contemporary work environment. Application of management theory to managerial practices to improve organizational effectiveness and efficiency, and enhance national and international competitiveness. 0506.00

42 Human Resource Management (3) (Cx)
(formerly Management 42) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Business: Management 40.
Formulation and implementation of human resource policy concerned with the major aspects of how an organization deals with its people - how it acquires them, utilizes them, rewards them, and separates them. Explores how the personnel functions integrate with the overall strategy of the firm in determining the success of the firm. 0506.30

44 Introduction to Human Relations (3)
(formerly Management 44) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Business: Management 40.
Assists the individual in the business organization in understanding group and individual dynamics, perception, conflict, motivation, leadership, influence, authority relationships, and causation of behavior. 0506.30

430 Warehouse Management and Material Handling (3) (Cx)
(formerly Management 430) (Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Essential skills for warehouse managers, with emphasis on the planning, protection, productivity, and quality control functions in warehouse and distribution operations. Topics include: warehouse design and layout, effective communications, industry terminology, technology, distribution systems, inventory management and protection, accountability, auditing, and safety rules and regulations. 0510.00

440 Principles of Leadership (2) (Cx)
(formerly Management 440) (Degree-applicable)
Hours: 32-36 lecture.
Grading: Letter grade only.
Leadership principles in business. Topics include differentiation between management and leadership; traits and characteristics of natural, charismatic, and situational leaders; styles and tactics used by effective leaders to enhance individual and team performance; problem-solving, coaching, and conflict-resolution skills; and leadership’s effects on organizational communication. Students use industry tools to assess their own leadership style and capabilities. 0506.30

460 Quality Management Principles (3) (Cx)
(formerly Management 460) (Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
For individuals who want to understand and improve existing processes. Implementation of continuous improvement and the understanding of various quality philosophies and tools. Basic principles, objectives, and policies of a Quality Management program. 0506.00

480 Principles of Supervision (3) (Cx)
(formerly Management 480) (Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Business 60 or Business: Management 40 or 460.
Introduction to the roles and duties of a paralegal within the American legal system, and the relationships between paralegals, attorneys, and clients. Topics include: paralegal career options, ethical codes, law office management principles, organizational structure, teamwork, legal research and writing, including transmittal and client opinion letters, pleadings, and legal memoranda, case briefs, and memoranda of law; and legal citation rules. 1402.00

482 Civil Litigation (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Business: Paralegal Studies 400.
Fundamental aspects of substantive civil law and civil procedure, with emphasis on the roles of the paralegal in civil litigation. Topics include: evidence gathering and investigation, jurisdiction, venue identification of local courts, initiation of civil proceedings, drafting the complaint, filing a lawsuit, defending and testing a lawsuit, discovery procedures, settlement, trial preparation and trial assistance, post-trial practice, and alternative dispute resolutions. 1402.00

483 Evidence (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Business: Paralegal Studies 400.
Study of the California Evidence Code, the Federal Rules of Evidence, and a paralegal’s role in the analysis and application of the rules of civil and criminal evidence. Topics include: evidence gathering and investigation, admissibility of relevant evidence, methods of proving character, modern competency rules, impeachment, testimony by lay and expert opinions, hearsay and hearsay exceptions, constitutional constraints on the admissibility of evidence, the impact of California’s 1982 Proposition B (Victim’s Bill of Rights), and privileges. 1402.00

484 Law Office Operations (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Business and Office Technologies 628 and Business: Paralegal Studies 400.
Introductory course for students pursuing careers as legal office professionals or individuals currently working in a law office wishing to improve their skills. State and federal court systems, legal terminology, preparation of court documents, and the concepts of civil procedures in various areas of the law operative in California are explored. Topics include: structure of the courts, practices and procedures of the law, terminology and vocabulary, preparation of court documents, an introduction to legal research, legal calendaring, and client contact. Hands-on projects include using Microsoft Word or Corel WordPerfect to prepare simulated legal writings and complete legal forms. 1402.00

BUSINESS: PARALEGAL STUDIES (BUSPL)

400 Introduction to Paralegal Studies (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Introduction to the roles and duties of a paralegal within the American legal system, and the relationships between paralegals, attorneys, and clients. Topics include: paralegal career options, ethical codes, law office investigations, litigation assistance, legal research and writing, computer use, and general law office administration. 1402.00

401 Legal Research and Writing (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Business: Paralegal Studies 400, and Business and Office Technologies 88 or English 1A.
Fundamentals of legal research, writing, and analysis for the paralegal. Topics include: reading and analysis of statutes; research using primary and secondary sources, and computer-assisted research tools; law office writings, including transmittal and client opinion letters, pleadings, and legal memoranda, case briefs, and memoranda of law; and legal citation rules. 1402.00

29 Fundamentals of Computer Keyboarding (1.5)
(CSU)
Hours: 24-27 lecture.
Grading: Letter grade only.
Beginning course in keyboarding on the computer with mastery of the alphabetic and numeric keyboard and correct touch-typing techniques. Introduction to the computer, word processing, and disk management. Highly recommended for all college students. 0514.00
30 Fundamentals of Microsoft Word (1.5)  
(CSU)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Advisory: Knowledge of keyboarding/typing.  
Basic, hands-on introduction to Microsoft Word for Windows. Document preparation and formatting of academic papers, reports, letters, and résumés. Develop skills and literacy in the Windows environment: creating, editing, formatting, saving, printing, and disk management. Highly recommended for all college students.  
0514.00

40A Beginning Computer Keyboarding (3) [Cx]  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Beginning course in computer keyboarding with mastery of the alphabetic and numeric keyboard and correct touch-typing techniques. Introduction to the personal computer, word processing, disk management, and formatting of basic business correspondence. May be taken twice.  
0514.00

40B Computer Keyboarding: Speed and Accuracy Development (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Business and Office Technologies 40A.  
Develop computer literacy. Analyze, evaluate, and improve keyboarding speed and accuracy using touch-typing techniques and Windows applications. Intense review of letters, numbers, and symbols, and the production of basic reports, business letters, and memorandums. May be taken four times. Proficiency certificate issued after successful completion of course.  
0514.00

50 Filing and Records Management (3) [Cx]  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Instruction and practice work involving basic filing principles, procedures, and systems. Emphasis on non-correspondence records, information storage and retrieval systems. Management aspects of records retention, disposition, and the operation of a records management program.  
0514.40

60A Microsoft Office Word - Specialist (3) [Cx]  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Business and Office Technologies 40A and completion of or concurrent enrollment in Business and Office Technologies 40B.  
Hands-on word processing using Microsoft Word for Windows. Develop personal and workplace job skills while building a foundation for other Windows software applications such as the Microsoft Office Suite. Create, edit, format, save, print, file management, the Internet, shortcuts, and retrieve documents. Customize and format academic papers, business reports, tables, columns, and graphics. Course helps prepare students for the Microsoft Office Specialist (MOS) Word certification testing. Computer assignments are a required part of this course. May be taken twice.  
0514.00

60B Microsoft Office Word - Expert (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Business and Office Technologies 40A and 60A, and completion of or concurrent enrollment in Business and Office Technologies 40B.  
A hands-on approach to advanced concepts using Microsoft Word business applications: macros, book marks, clipart, borders, forms, table of contents, indexes, the Internet, tables and charts, sorts, columns, merge, styles, and shared documents. Course helps prepare students for the Microsoft Office Specialist (MOS) Word certification testing. Computer lab assignments are a required part of this course. May be taken twice.  
0514.00

61 Microsoft Office PowerPoint (1.5)  
(CSU)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Business and Office Technologies 40B and 60A.  
This module integrates the presentation application (PowerPoint) into the Microsoft Office suite. Hands-on introduction to concepts, terminology, and software program to create electronic presentations for support personnel and business managers. Formatting slide texts, charts, tables, and graphics as utilized in business reports and presentations. Computer lab assignments are a required part of this course. May be taken twice.  
0514.00

62 Microsoft Office Outlook (1.5)  
(CSU)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Business and Office Technologies 40B and 60A.  
This module integrates word processing (MS Word) and electronic information management in the MS Office suite. Write, send, and receive e-mail; calendar appointments electronically; and schedule conferences with multiple users. Link and integrate MS Office files including the Internet, launch other programs, and manage work flow of tasks. Advanced merge, tables, and graphics. Computer lab assignments are part of this course. May be taken twice.  
0514.00

63 Microsoft Office Excel - Comprehensive (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Business and Office Technologies 40B and 60A.  
This module integrates the spreadsheet application (MS Excel) into the MS Office suite. Full-featured spreadsheet application software offering core and advanced concepts. Emphasis on creating formulas, using relative and absolute references, editing and formatting, working with templates and chart wizards, using IF functions, sorting and filtering records, creating pivot tables, and integrating with MS Office Suite programs (MS Word). Topics covered will help prepare students for the MOS (Microsoft Office Specialist) Excel certification testing. Computer lab assignments are a required part of this course. May be taken twice.  
0514.00

63A Microsoft Office Excel - Specialist (1.5)  
(CSU)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Business and Office Technologies 40B and 60A.  
This module integrates the spreadsheet application (MS Excel) into the MS Office suite. Hands-on introduction to the concepts, terminology, and software. A full-featured spreadsheet application software offering tools to enter, analyze, report, and chart business data. Computer assignments are a required part of this course. May be taken twice.  
0514.00

63B Microsoft Office Excel - Expert (1.5)  
(CSU)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Business and Office Technologies 63A.  
Full-featured spreadsheet MS Excel software application, offering core and advanced concepts in working with templates and functions, sorting and filtering records, using analysis tools, and integrating with MS Office Suite programs (MS Word). Topics covered will help prepare students for the MOS (Microsoft Office Specialist) Excel certification testing. Computer lab assignments are a required part of this course. May be taken twice.  
0514.00

64A Microsoft Office Access - Specialist (1.5)  
(CSU)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Business and Office Technologies 64A.  
This module integrates the database application (Access) into the Microsoft Office suite. Hands-on introduction to the concepts, terminology, and software programs used in electronic filing and records management. Create and use electronic databases in the paperless, electronic office. Create queries, design forms and reports. Computer assignments are a required part of this course. May be taken twice.  
0514.00

64B Microsoft Office Access - Expert (1.5)  
(CSU)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Business and Office Technologies 64A.  
Full-featured database MS Access software application, offering core and advanced concepts in working with databases, tables, reports, forms and mailing labels, refining queries, and integrating with MS Office Suite programs (MS Word). Topics covered will help prepare students for the MOS (Microsoft Office Specialist) Access certification testing. Computer lab assignments are a required part of this course. May be taken twice.  
0514.00

88 Written Communication for Business (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Business and Office Technologies 455, English 450, or English as a Second Language 450.  
Study and application of basic principles for producing clear, correct, and logically organized written business communication. Punctuation, capitalization, use of numbers, formats, and pronoun cases will be reviewed. Stress on developing a clear, logical, and professional tone in handling routine business communications including letters, memorandums, and directives as well as developing a personal resume.  
0514.00
COURSE DESCRIPTIONS

98A,B,C Independent Study: Business and Office Technologies (1, 2, 3) (CSU credit limitations)
Grading: Letter grade only.
Limitation on Enrollment: Instructor signature is required for registration.
Special project course designed for the capable, well-motivated student. Each student explores and develops a project or a paper on an area of personal interest. Nature and extent of the project must be decided upon by both student and instructor before the student may sign up for the course. Type and extent of the project determines the number of units allowed. May be taken three times, regardless of the unit combination.

400 Job Search and Interviewing Techniques (1.5) (Degree-applicable)
Hours: 24-27 lecture.
Grading: Letter grade only.
Strategies to organize a job search, prepare a marketable resume and letter of application, create a career portfolio, respond to frequently asked interview questions, and practice successful interviewing techniques.

410A Microsoft Office Publisher - Specialist (1.5) (Degree-applicable)
Hours: 24-27 lecture.
Grading: Letter grade only.
Advisory: Completion of Business and Office Technologies 60A.
This module integrates the desktop publishing application (MS Publisher) into the Microsoft Office suite. Hands-on introduction to the concepts, terminology, software, hardware, and uses of desktop publishing for business. Emphasis on creating, editing, and printing text, tables, and graphics. May be taken twice.

410B Microsoft Office Publisher - Expert (1.5) (Degree-applicable)
Hours: 24-27 lecture.
Grading: Letter grade only.
Advisory: Completion of Business and Office Technologies 410A.
Full-featured desktop publishing MS Publisher software application offering core and advanced concepts. Emphasis on creating style sheets and master pages, special effects, templates, scanned images, and long documents. May be taken twice.

444 Concepts and Techniques of Data Entry (2) (Degree-applicable)
Hours: 32-36 lecture.
Grading: Letter grade only.
Advisory: Completion of Business and Office Technologies 60A and typing speed of 35 words per minute.
Concepts, techniques and procedures for inputting alpha and alphanumeric data on the microcomputer.

455 Fundamentals of English for Business (3) (Degree-applicable)
Hours: 48-54 lecture.
Study and review of grammar, punctuation, vocabulary, and sentence structure to prepare students for college-level and business writing courses. Overview of sentence structure, paragraphs, business vocabulary, and basic communication skills. Practice in applying basic tenets of communication and critical-thinking skills leading to understanding of business communications.

460 Proofreading: Text-Editing Skills (3) (Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of or concurrent enrollment in Business and Office Technologies 60A and 455.
Development of the essential skills needed to perform proofreading and text-editing functions for the automated office. Emphasis on formatting and accuracy of input, using word processing software and office reference manuals.

462A Beginning Machine Transcription (3) (Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of or concurrent enrollment in Business and Office Technologies 60A and 460.
Development of a marketable skill in machine transcription. Emphasis on increasing skills in punctuation, spelling, vocabulary, and production of mailable business correspondence and reports, using word processing software for the microcomputer.

462B Advanced Machine Transcription (3) (Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Business and Office Technologies 455, 460, and 462A, and completion of Biology 30 for medical emphasis majors.
Development of advanced production skills in machine transcription utilizing word processing software. Student selects an emphasis on the general or medical office. May be taken twice.

470 Electronic Office Procedures (3) [Cx] (Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Business and Office Technologies 60B and 460.
Office professional duties and responsibilities, the organization of those duties, the personal qualifications of the office professional, and business ethics and etiquette. Office procedures and practices are discussed and evaluated. Emphasis on the electronic office, application software, time-management techniques, proper telephone skills, career planning, and job interviews.

471 Administrative Office Management (3) (Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Introduction to the study and application of basic principles for managing a business office. Strategies to maintain a sound, flexible, and dynamic office organization whose objectives correspond to those of the firm. Principles of management that pertain to objectives of the organization, scope and assignment of responsibilities, unity of functions, use of specialization, delegation of authority and responsibility, unity of command, span of control, and decentralization or decentralization of managerial authority.

475 Medical Office Procedures (3) (Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Biology 30, Business and Office Technologies 40A or 40B, and Business and Office 470.
A study of the medical front office assistant's career, meeting the patient, scheduling appointments, medical records, billing and collection, financial records, medical law, and ethics.

492A-H Special Topics: Business and Office Technologies (1-6) (Degree-applicable)
Hours: 16-18 hours/term lecture for each unit of credit.
Grading: Letter grade only.
Special topic course in specific office technology areas. Topics identified by the instructor. May be taken four times regardless of the unit combination. However, no single-subject, special-interest class may be repeated. May require corequisites and/or prerequisites based on the content of the course.

492LA-H Special Topics Laboratory: Business and Office Technologies (1-6) (Degree-applicable)
Hours: 48-54 hours/term laboratory for each unit of credit.
Grading: Letter grade only.
Special projects designed to allow capable, well-motivated students in the major to develop a project in, or make a report on, a facet of office technology. Student-instructor agreement as to the nature and extent of the project must be reached before the student enrolls. May require corequisites and/or prerequisites based on the content of the course.
496A, B, C, D Internships in Business and Office Technologies (1, 2, 3, or 4)  
(Degree-applicable)  
Hours: 60 hours/term (unpaid) or 75 hours/term (paid) on-site work experience for each unit of credit.  
Grading: Letter grade only.  
Limitation on Enrollment: Consent of the Business and Office Technologies Program Coordinator is required.  
Corequisite: Concurrent enrollment in any Business and Office Technologies course.  
Advisory: Completion of Business and Office Technologies 470.  
Supervised internship in cooperation with private or public sector employers. Designed to apply knowledge and learn new skills, directly related to the student’s program of study, outside of the normal classroom environment. Placement is arranged through the instructor. Participation requirements may vary with the job setting. May be taken four times, for a maximum of twelve units credit.  
0514.00

BUSINESS AND OFFICE TECHNOLOGIES: MEDICAL CODING AND BILLING (BUSOTMD)

408 Coding of Body Systems for Medical Coding and Billing (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Biology 30.  
Course is designed for individuals or professionals pursuing careers in medical administration. Students match ICD-9-CM and CPT medical coding systems to the parts of the human body in order to correctly encode medical records. Detailed analysis of medical record reports and scenarios facilitates mastery of medical coding and billing conventions. May be taken twice.  
0514.20

410 Basic CPT-4 Coding (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Biology 30.  
Corequisite: Business and Office Technologies: Medical Coding and Billing 408 (may be taken previously).  
Beginning coding class presents an overview of nomenclature and classification systems, with focus on coding clinical information from medical records. Introduction to the Common Procedural Terminology (CPT4) containing instruction in coding procedures, sequencing, and conventions. Review of procedural codes by body system. Coding software applications introduced.  
0514.20

420 Basic ICD-9-CM Coding (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Biology 30.  
Corequisite: Business and Office Technologies: Medical Coding and Billing 408 (may be taken previously).  
Beginning coding class presents an overview of nomenclature and classification systems, with focus on coding clinical information from medical records. Introduction to the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), which contains instruction in coding diagnoses and procedures, sequencing, and coding conventions. Review of complications and co-morbidities. Coding software applications introduced.  
0514.20

430 Intermediate Level ICD-9-CM and CPT4 Coding (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Business and Office Technologies: Medical Coding and Billing 410 and 420.  
Advanced coding class addressing more complex issues related to ICD-9-CM and CPT4 coding. Focus on using actual medical records in applying learning at a higher coding skill level. Computerized encoders and groupers emphasized. Coding software application introduced. Ambulatory Patient Classifications (APCs) and Resource-Based Relative Value Scales (RBRVs) also covered.  
0514.20

440 Medical Billing, Reimbursement, and Compliance (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Business and Office Technologies: Medical Coding and Billing 410 and 420.  
Comprehensive study of medical health insurance billing procedures. Topics include: claims completion for all types of payers; reimbursement methodologies, including payment systems and their impact on financial stability of health care; and an introduction to healthcare data quality issues.  
0514.20

CHEMISTRY (CHEM)

In the General Chemistry courses (Chemistry 21/21L/21L2 and Chemistry 22/22L1/22L2) having both lecture and laboratory components that must be taken concurrently, a minimum grade of C is required in all the corequisite-linked courses in order to meet course and program requirements. If satisfactory grades (A, B, or C) are earned in all of the components, the appropriate grade will be issued for each course. If an unsatisfactory grade (D or F) is earned in any of the linked courses, the lowest substandard grade will be issued for all three courses. If an incomplete (I) is earned in any of the linked courses, the incomplete will be issued for all three courses.

7 Chemistry in Context (4)  
(CSU; UC credit limitations)  
Hours: 48-54 lecture; 48-54 laboratory  
Grading: Letter grade only.  
Advisory: Completion of Math 410 or one year of high school algebra.  
Introduction to the principles of chemistry, including atomic structure, gas laws, periodic properties, bonding in ionic compounds, nuclear chemistry.  
1905.00

21 General Chemistry (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Chemistry 9 or 10 or high school chemistry, and Mathematics 425 or two years of high school algebra.  
Corequisite: Chemistry 21L1 and 21L2.  
Introduction to the science of chemistry. Topics include: stoichiometry, nomenclature, atomic structure, gas laws, periodic properties, bonding in ionic compounds, bonding in covalent compounds (including valence shell electronic pair repulsion, valence bond and molecular orbital theories), thermodynamics, solutions and reactions in solution, solids, liquids, and solution properties.  
1905.00

21L1 General Chemistry Laboratory I (1)  
(CSU; UC credit limitations)  
Hours: 48-54 laboratory.  
Grading: Letter grade only.  
Corequisite: Chemistry 21 and 21L2.  
Hands-on activities to reinforce lecture concepts, develop chemical laboratory techniques, and use the scientific method of inquiry.  
1905.00

21L2 General Chemistry Laboratory I (1)  
(CSU; UC credit limitations)  
Hours: 48-54 laboratory.  
Grading: Letter grade only.  
Corequisite: Chemistry 21 and 21L1.  
Hands-on activities to reinforce lecture concepts, develop chemical laboratory techniques, and use the scientific method of inquiry.  
1905.00
22 General Chemistry (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Chemistry 21, 21L1, and 21L2.  
Corequisite: Chemistry 22L1 and 22L2.  
Continued study of the science of chemistry. Topics include: kinetics, equilibria, acids and bases, ionic equilibria of weak acids and bases and complexes, electrochemistry, chemistry of main group metallic and non-metallic elements, chemistry and metallurgy of transition metals, nuclear chemistry, and an introduction to organic chemistry.  
1905.00

22L1 General Chemistry Laboratory II (1)  
(CSU; UC credit limitations)  
Hours: 48-54 laboratory.  
Corequisite: Chemistry 22 and 22L2.  
Hands-on activities to reinforce lecture concepts, develop chemical laboratory techniques, and use the scientific method of inquiry.  
1905.00

22L2 General Chemistry Laboratory II (1)  
(CSU; UC credit limitations)  
Hours: 48-54 laboratory.  
Grading: Letter grade only.  
Corequisite: Chemistry 22 and 22L1.  
Hands-on activities to reinforce lecture concepts, develop chemical laboratory techniques, and use the scientific method of inquiry.  
1905.00

70 Quantitative Analysis (4)  
(CSU; UC)  
Hours: 32-36 lecture; 96-108 laboratory.  
Prerequisite: Chemistry 22, 22L1, and 22L2.  
Introduction to the methods of gravimetric, volumetric and spectrophotometric analysis and to separation techniques. Designed to meet the normal four-unit course requirement for chemistry majors, pre-med students, and pre-dentistry students. Parallels the quantitative analysis usually offered in the sophomore year in most four-year colleges and universities.  
1905.00

75A Organic Chemistry (5)  
(CSU; UC)  
Hours: 64-72 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Chemistry 22, 22L1, and 22L2.  
Study of the chemistry of aliphatic and aromatic hydrocarbons including the theory of their structure, properties and reactions mechanisms. Laboratory work emphasizes the techniques of organic synthesis, purification and characterization.  
1905.00

75B Organic Chemistry (5)  
(CSU; UC)  
Hours: 64-72 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Chemistry 75A.  
Continued study of the chemistry of aliphatic and aromatic hydrocarbons including the theory of their structure, properties and reactions mechanisms. Laboratory work emphasizes the techniques of organic synthesis, purification and characterization.  
1905.00

90A,B Chemistry Honors Seminar (1)  
(CSU; UC credit limitations)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Honors component for Chemistry. Topics of interest are chosen by the instructor and students, and are presented in a seminar format. Prerequisites and/or corequisites are required. May be taken four times with change in topic emphasis.  
1905.00

92A-H Special Topics: Chemistry (.5-6)  
(CSU; UC credit limitations)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Topics of special interest or specific areas of specialization in chemistry not covered in the regular curriculum. May be taken three times regardless of the unit combination. No single-subject, special-interest class may be repeated.  
1905.00

92LA-H Special Topics Laboratory: Chemistry (.5-6)  
(CSU; UC credit limitations)  
Hours: 48-54 hours/term laboratory for each unit of credit.  
Grading: Letter grade only.  
Topics of special interest or specific areas of specialization in chemistry with emphasis on laboratory skills, procedures, and techniques not covered in the regular curriculum.  
1905.00

CHILD DEVELOPMENT AND EDUCATION (CDE)

Students enrolled in two corequisite-linked courses consisting of one lecture and one work experience course (i.e. CDE-24 and CDE-24W) must achieve a minimum grade of “C” in both courses to meet course and program requirements.

1 Introduction to Principles and Practices in Early Childhood (3)  
(CSU)  
Hours: 48-54 lecture  
Grading: Letter grade only.  
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required. History and philosophy of the care of infants and young children, with emphasis on early childhood programs. Survey of practices, opportunities, concerns, legal requirements, qualifications, and responsibilities of teachers. Knowledge of specific developmental needs of young children.  
1305.00

2 Child Growth and Development (3) [Cx]  
(CSU; UC credit limitations)  
Hours: 48-54 lecture  
Grading: Letter grade only.  
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required. Advisory: Completion of Child Development and Education 1. Examination of the developmental years from birth through adolescence. Social, emotional, intellectual, and physical growth are studied from relevant theoretical positions.  
1305.00

3 Child Study and Observation (3)  
(CSU)  
Hours: 48-54 lecture  
Grading: Letter grade only.  
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required. Current approaches for observing and recording the behavior of infants and young children, using various scientific techniques. Study and interpretation of young children’s behavior from perspectives of child development theories.  
1305.00

4 Child, Family, and Community (3)  
(CSU; UC)  
Hours: 48-54 lecture  
Grading: Letter grade only.  
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required. Study of society and its impact upon the behavior of young children. Topics include: family structure, understanding children as a product of their cultural heritage, and development of community resources relating to health, education, welfare, recreational, religious, and counseling organizations.  
1305.00

5 Health and Safety of the Young Child (3)  
(CSU)  
Hours: 48-54 lecture  
Grading: Letter grade only.  
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required. Advisory: Cardio-Pulmonary Resuscitation (CPR) and first aid training is recommended. Basic information on the building of good health habits, stressing the importance of good nutrition in the preschool years. Importance of safety information and training. Cultivation of skill in first aid and recognition of symptoms of childhood communicable diseases. This course is required for Child Development supervisory permits.  
1305.40

6 The Child in a Multicultural Society (3)  
(CSU)  
Hours: 48-54 lecture  
Grading: Letter grade only.  
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required. Cultural differences and similarities - their impact on children and education. Resources available to teachers for educating children in a multicultural, pluralistic society.  
1305.00

7 Curriculum Development: The Creative Arts (3)  
(CSU)  
Hours: 48-54 lecture  
Grading: Letter grade only.  
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required. Introduction to the creative arts for young children. Storytelling, language, visual arts, drama, music, and dance are examined as an integral part of the child’s world. Theories and techniques to develop children’s creative abilities are explored. Emphasis on creative processes through appreciation of diversity in art and culture. Perspectives on values and problem solving that engage children’s participation at all levels. May be taken twice.  
1305.00

8 Curriculum Development: Math and Sciences (3)  
(CSU)  
Hours: 48-54 lecture  
Grading: Letter grade only.  
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required. Introduction to how children learn and develop concepts of math and science. Young children’s problem solving abilities in regard to math and the sciences are examined. Theories are reinforced by activities designed to practice skills in each area. Piaget’s theory of children’s concept development, right/left hemisphere brain activity, and learning strategies and styles are also explored.  
1305.00
23 Introduction to Children with Special Needs (3)
(CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required.
Prerequisite: Child Development and Education 2.
Analysis of the ways that play affects the social, emotional, cultural, and creative and language arts lesson plans in developmentally appropriate environments. 1305.80

25W Curriculum Theory II: Supervised Work Experience Practicum (1)
(CSU)
Hours: 32-36 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required.
Corequisite: Child Development and Education 25W.
Supervised occupational work experience practicum demonstrating principles of early childhood growth and development to teaching. Curriculum planning and implementation of cognitive, physical, social, emotional, cultural, creative, and language arts lesson plans in developmentally appropriate environments. 1305.80

25W Curriculum Theory II: Supervised Work Experience Practicum (1)
(CSU)
Hours: 60 hours supervised practicum in various community child development programs.
Grading: Letter grade only.
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required.
Corequisite: Child Development and Education 25W.
Advanced principles and practices of curriculum theory of early childhood growth and development and their application through student teaching. Emphasis on health and safety, language capability, cognitive development, and physical needs in the learning environment, as well as development of effective communication skills for teachers. Advanced curriculum planning and implementation of cognitive, physical, social, emotional, cultural, and creative and language arts lesson plans in developmentally appropriate environments, with focus on the creation of an unbiased curriculum and learning environment. 1305.80

26 Community Internship Seminar: Child Development and Education (2)
(CSU)
Hours: 32-36 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required.
Prerequisite: Child Development and Education 25 and 25W.
Discussion and evaluation of the curriculum issues applicable to each of the varied types of child development sites. 1305.80

50 Administration of Child Development Programs (3)
(CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required.
Prerequisite: Child Development and Education 2.
Analysis of the ways that play affects the social, emotional, cultural, and creative and language arts lesson plans in developmentally appropriate environments. 1305.80

92A-H Special Topics: Child Development and Education (1-5)
(CSU)
Hours: 16-18 hours/term lecture for each unit of credit.
Grading: Letter grade only.
Special interest lecture course for students wishing further exploration in specific areas of child development and education. Topics are determined by the instructor and cover the range of Child Development and Education curriculum. Consult the schedule of classes for current term emphasis. May be taken four times regardless of the unit combination, however no single-topic, special interest class may be repeated. May require corequisites and/or prerequisites based on the content of the course. 1305.00

92L-H Special Topics Laboratory: Child Development and Education (1-5)
(CSU)
Hours: 48-54 hours/term laboratory for each unit of credit.
Grading: Letter grade only.
A series of special interest laboratory practicum courses designed to allow students to gain specific skills with children. Topics are determined by the instructor and cover the range of Child Development and Education curriculum. Consult the schedule of classes for current term emphasis. May be taken four times regardless of the unit combination, however no single-topic, special interest laboratory practicum class may be repeated. May require corequisites and/or prerequisites based on the content of the course. 1305.00

409 Curriculum Development: Language and Literature (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required.
Introduction to how children learn and develop language skills. Considers learning theory and language development in selecting literature and designing language arts curriculum. Examines the relationship between language arts components and identifies the constituents of quality literature. Discusses the benefits of reading to children from a diverse variety of literature genres, including multicultural pieces and books about learners with special needs. 1305.00

416 Brain Research and the Implications for Classroom Teaching (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required.
Advisory: Completion of Child Development and Education 2.
Introduction to brain physiology and functioning. Current brain research and its relevance to educational practices and the guidance of children. Current brain research findings in the areas of learning and memory, effects of stress and drugs, emotional and intellectual functioning, and gender differences in brain function and behavior. Implications of brain research on communicating and interacting with young children in ways that elicit positive behaviors. 1305.00

430A Infant and Toddler: Group Caregiving I (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required.
Advisory: Completion of Child Development and Education 2.
Infant and toddler (birth through three years of age) development, as reflected in theory and research findings, including socialization, emotional development and temperament. Appropriate health, safety, and nutritional practices for environments; routines; and culturally sensitive care for infants and toddlers are also covered. 1305.00
430B Infant and Toddler: Group Caregiving II (3)  
(Degree-applicable)  
Hours: 48-54 lecture  
Grading: Letter grade only.  
Limitation on Enrollment: Proof of a negative tuberculosis test valid within the last 12 months is required.  
Prerequisite: Child Development and Education 430A.  
Further study of infant and toddler (birth through three years of age) development, as reflected in theory and research findings, including cognitive, language, and brain development. Course also includes creating partnerships with coworkers and the child's family to provide inclusive developmentally appropriate practices.  
1305.90

451 Advanced Administration of Child Development Programs (3)  
(Degree-applicable)  
Hours: 48-54 lecture  
Grading: Letter grade only.  
Limitation on Enrollment: Proof of a negative tuberculosis test valid within the last 12 months is required.  
Prerequisite: Child Development and Education 50.  
Advanced study of issues facing directors of Child Development and Education programs. Examination and analysis of new and proposed state regulations. Introduction to policies specific to state-funded programs. Title 5 regulations, and evaluation of programs utilizing state mandates. Development of advocacy skills, proposals, and grant writing for funding. Emphasis on personnel administration, selection, supervision, and evaluation. This course is required for the Child Development Center Supervision permit.  
1305.80

452 Administration and Supervision of Early Childhood Personnel (3)  
(Degree-applicable)  
Hours: 48-54 lecture  
Grading: Letter grade only.  
Limitation on Enrollment: Proof of a negative tuberculosis test valid within the last 12 months is required.  
Prerequisite: Child Development and Education 50 and 451.  
Methods and principles of supervision of student teachers, assistant teachers, parents, and volunteers in early childhood classrooms. Role of classroom teachers who function as mentors.  
1305.80

CHINESE (CHIN)

1 Elementary Mandarin Chinese (4)  
(CSU; UC)  
Hours: 64-72 lecture  
Grading: Letter grade only.  
Introduction to Mandarin Chinese, taught within the context of Chinese culture. Introduction to the customs, cultural practices, and geography of China through lectures, films, web activities, and reading assignments. Focus on the four major skills of language learning - listening comprehension, speaking, reading, and writing - and the grammar and vocabulary necessary to acquire these skills. Fourteen hours of supplemental learning in a Success Center that supports this course is required. This course corresponds to the first year of high school Chinese.  
1107.00

2 Elementary Mandarin Chinese (4)  
(CSU; UC)  
Hours: 64-72 lecture  
Grading: Letter grade only.  
Prerequisite: Chinese 1 or one year of high school Chinese.  
Continuing study of Mandarin Chinese, taught within the context of Chinese culture. Customs, cultural practices, and geography of China are explored through lectures, films, web activities, and reading assignments. Focus on the further development of conversational, reading, and writing skills. Review of basic structures, and expanded knowledge of verbs, grammar, and vocabulary. Emphasis on the communicative approach to language acquisition, with emphasis on the appreciation of the culture. Fourteen hours of supplemental learning in a Success Center that supports this course is required.  
1107.00

CINEMA (CINEMA)

20 Scriptwriting (3)  
(CSU)  
Hours: 48-54 lecture  
Grading: Letter grade only.  
Comprehensive overview of scriptwriting for diverse media formats. Students employ writing theory and critical analysis of classical literature to formulate story ideas, develop storytelling techniques, enhance narrative structure, and write polished scripts. Scriptwriting software is used to outline, storyboard, and write dynamic stories for film, radio, television, and the performing arts. May be taken four times.  
0601.00

25 Survey of World Cinema (3)  
(CSU; UC)  
Hours: 48-54 lecture  
Grading: Letter grade only.  
Historical introduction to motion pictures as an art form, through the study and analysis of significant filmmakers throughout the world of film. Development of film as an evolving art and its impact on commercial television and related visual media. Focus on the specific impact of world filmmakers, technical innovations, influences of visual media techniques of commercial filmmaking, and the methods of film criticism.  
0612.10

26 Survey of American Cinema (3)  
(CSU; UC)  
Hours: 48-54 lecture  
Grading: Letter grade only.  
The art of American theatrical films from the study and analysis of silent classics through contemporary commercial films. Viewing films, discussion, and critical lectures. Successive offerings will focus on the studio, directors, stars, western, musical, gangster, science fiction, epic, experimental films, family melodrama, hard-boiled detective, small film, and film noir. Development of film as an evolving art and its impact on commercial television and related visual media. Further emphasis on commercial filmmaking and methods of film criticism.  
0612.10

30 Cinema Production (3)  
(CSU)  
Hours: 32-36 lecture; 49-54 laboratory  
Grading: Letter grade only.  
Methodology, theory, and aesthetics of cinematography for motion-pictures and television. Classic filmmaking techniques are combined with digital and/or film cameras and other technologies to achieve a cinematic look to assigned projects. Focus on the traditional production phases of the filmmaking process, including the hiring of personnel, selection and use of tools and techniques, and the directorial decisions involved to complete various types of cinematic productions. Students produce and edit projects.  
0612.20

80 Producing for Broadcast and Cinema (3)  
(CSU)  
Hours: 48-54 lecture  
Grading: Letter grade only.  
Prerequisite: A minimum of 3 units in broadcasting or cinema coursework, or consent of the instructor.  
An in-depth exploration and discussion on producing content for the broadcast and cinema industries. Topics include various programming in the broadcasting and entertainment fields. Prepares students to plan and achieve career and educational goals in broadcasting and cinema industries.  
0604.20

92A-H Special Topics: Cinema (.5-6)  
(CSU; UC credit limitations)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Special interest lecture course for students who wish further exploration in the field of cinema. Topics will vary and will be determined by the instructor. See the schedule of classes for current term emphases. May be taken four times regardless of the unit combination. However, no single-subject, special interest class may be repeated. May require prerequisites and/or corequisites based upon the content of the course.  
0612.00

92LA-H Special Topics Laboratory: Cinema (.5-6)  
(CSU; UC credit limitations)  
Hours: 48-54 hours/term laboratory for each unit of credit.  
Grading: Letter grade only.  
Special interest laboratory course for students who wish further exploration in the field of cinema. Topics will vary and will be determined by the instructor. See the schedule of classes for current term emphases. May be taken four times regardless of the unit combination. However, no single-subject, special interest class may be repeated. May require prerequisites and/or corequisites based upon the content of the course.  
0612.00

96A, B, C, D Internships in Cinema or Broadcasting (1, 2, 3, or 4)  
(CSU)  
Hours: 60 hours/term (unpaid) or 75 hours/term (paid) on-site work experience for each unit of credit.  
Grading: Letter grade only.  
Prerequisite: Completion of one Cinema or Broadcasting course listed in the Cinema or Broadcasting programs of study.  
Advisory: Considerable cinema/broadcasting background and consent of instructor may substitute for prerequisite course, however completion of cinema or broadcasting coursework in the relevant area of internship is recommended.  
Supervised field experience in motion pictures, television, radio, cable station, or other business related to the field of broadcasting and/or cinema. Course is designed to apply knowledge and learn new skills outside of the normal classroom environment. Placement is arranged through the instructor. Participation requirements may vary with the setting. May be taken four times, for a maximum of twelve units credit.  
0604.00
8A,B,C Independent Study: Cinema (1, 2, or 3) (CSU and UC credit limitations)
Grading: Letter grade only.
Limitation on Enrollment: Instructor signature is required for registration.

Designed for the capable and well-motivated student who wishes to pursue a study of a specific cinema topic, or a more advanced project in cinema than is offered in the regular program. Students who participate in this program must have completed introductory courses or have shown a skill greater than that necessary for completion of the class offerings. The nature and extent of the project must be determined by the student and instructor before the student registers for the class, since the extent of the project determines the number of units allowed. May be taken twice, regardless of the unit combination. 0612.00

COMMUNICATION STUDIES (COMSTD)

2 Fundamentals of Effective Speaking (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Eligibility for English 1A as determined by the Chaffey assessment process, or completion of English 450 or English as a Second Language 450.
Emphasis on preparing and delivering a speech before an audience. Communication theory and speech criticism are included for student application. A variety of situations are provided to prepare the student to speak with greater skill and confidence. 1506.00

4 Fundamentals of Interpersonal Communication (3) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of English 1A.
In-depth exploration of the variables of the interpersonal communication processes as they occur in day-to-day, face-to-face human interaction. Current theories of interpersonal communication are analyzed and applied. 1506.00

6 Fundamentals of Small Group Communication (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Eligibility for English 1A as determined by the Chaffey assessment process, or completion of English 450 or English as a Second Language 450.
Develop competence and confidence as a group member and leader through a combination of theoretical and practical knowledge of small groups in everyday life. Study and practice in various group activities. May be offered as an Honors course. 1506.00

8 Fundamentals of Speech Communication (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Prerequisite: Eligibility for English 1A as determined by the Chaffey assessment process, or completion of English 450 or English as a Second Language 450.
Survey of the fundamentals of human communication as they operate in a variety of contexts: interpersonal, small group, and public speaking. Course includes theories of rhetoric and communication for the development of skills and understanding of verbal and nonverbal communications. 1506.00

12 Mass Communication and Society (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Eligibility for English 1A as determined by the Chaffey assessment process, or completion of English 450 or English as a Second Language 450.
Examination of the form, content, and consequence of mass communication. Historical overview and examination of mass mediated reality using theories or rhetoric and symbolic interaction. Special attention given to the impact of both media technology and message content on how we live and what we believe as individuals and as a society. May be offered as an Honors course. 0610.00

14 Oral Interpretation of Literature (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Theoretical and practical experience in the oral interpretation of prose, poetry, and dramatic literature. In-depth study of the oral and analytical skills required to perform literature and of the critical skills required to evaluate oral interpretation performance. Recommended for students of speech communication studies, theatre, English, and the teaching professions. 1506.00

16 Communications Studies: Forensics (3) (CSU)
Hours: 32-36 lecture; 49-54 laboratory.
Grading: Letter grade only.
Advisory: Completion of Communication Studies 8 and/or high school forensic experience.
Preparatory procedures for intercollegiate forensic competition and/or public performance, including research methods and organizational formats appropriate to individual, team, and/or cast presentations. Presentation events include, but are not limited to, debate, persuasive speaking, extemporaneous speaking, oral interpretation of literature, and after-dinner speaking. Students are required to participate in intercollegiate speech tournaments or other performance activities. May be taken four times. 1506.00

72 Logic and Argumentation (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Prerequisite: English 1A.
Treatment of the theories and practices of argument, both formal and informal. Emphasis on language as a tool of argument. Fallacies of reasoning, practical problem-solving situations, and systems of logic. Oral exercises including debate, extensive writing requiring inclusion of advocacy papers, and analysis of refutations of arguments. 1506.00

74 Intercultural Communication (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Communication Studies 2, 4, 6, or 8 and eligibility for English 1A as determined by the Chaffey assessment process, or completion of English 450 or English as a Second Language 450.
Identification and analysis of processes and problems of communication as affected by different cultures. Effects of differences in attitudes, social organization, role expectations, language and nonverbal behavior— all of which are interrelated. Principles of communicative theory as they apply to the intercultural setting. May be offered as an Honors course. 1506.00

76 Gender and Communication (3) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Communication Studies 2, 4, 6, or 8 and eligibility for English 1A as determined by the Chaffey assessment process, or completion of English 450 or English as a Second Language 450.
Examination of communication patterns existing between males and females. Designed to integrate theory and practice, and to heighten students’ awareness of the importance of gender as a communication variable. Emphasis on perception, verbal and nonverbal communication in interpersonal, small group and public settings. Communication problems relating to gender are addressed along with listening, assertiveness, negotiation and other conflict management strategies. 1506.00

78 Family Communication (3) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Introduction to communication in the family setting. Analysis of how communication and related behavior affects how we develop, maintain, enhance, damage, and destroy family relationships. Through group and class discussion, students develop insights into the speech variables and communication processes that affect familial interaction. 1506.00

90A Communications Honors Seminar (1) (CSU; UC credit limitations)
Hours: 16-18 lecture.
Grading: Letter grade only.
Prerequisites and/or corequisites are required. May be taken four times with change in topic emphasis. 1506.00

92A-H Special Topics: Communication Studies (1-5) (CSU; UC credit limitations)
Hours: 16-18 hours/term lecture for each unit of credit.
Grading: Letter grade only.
Special-interest course of varying length for students who wish in-depth exploration of specific areas of communication both in theory and skills. Topics will be determined by the instructor and will cover an appropriate area of concentration within the range of communication arts: communication theory, interpersonal communication, small group communication, rhetoric and persuasion. See class schedule for emphasis. May be taken four times regardless of the unit combination. However, no single-subject, special-interest class may be repeated. 1506.00
**Computer Information Systems: Core (CIS)**

**1 Introduction to Computer Information Systems (3) [Cx]**

(Prerequisite: Computer Information Systems 1.)

Hours: 48-54 lecture.
Grading: Letter grade only.

Prerequisites: Computer Information Systems 1.

Hands-on introduction to the terminology, application, and use of the graphical operating system. May be taken four times.

**4 Fundamentals of Microsoft Windows (1.5) [Cx]**

(Prerequisite: Computer Information Systems 1.)

Hours: 24-27 lecture.
Grading: Letter grade only.

Hands-on introduction to the terminology, application, and use of the graphical operating system. May be taken four times.

**15 Microsoft Access Database Design and Development (3) [Cx]**

(Prerequisite: Computer Information Systems 1.)

Hours: 48-54 lecture.
Grading: Letter grade only.

Prerequisites: Computer Information Systems 1.

Introduction to networking fundamentals. Topics include theory, terminology, Network Operating Systems, the OSI model, protocols, and security. Hands-on instruction in the installation, configuration, administration, diagnostics, and trouble-shooting of computer networks.

**50 Introduction to Computer Networks (3) [Cx]**

(Prerequisite: Computer Information Systems 1.)

Hours: 48-54 lecture.
Grading: Letter grade only.

Prerequisites: Computer Information Systems 1.

Introduction to networking fundamentals. Topics include theory, terminology, Network Operating Systems, the OSI model, protocols, and security. Hands-on instruction in the installation, configuration, administration, diagnostics, and trouble-shooting of computer networks.

**68 Using the Internet (1.5)**

(Prerequisite: Computer Information Systems 1.)

Hours: 24-27 lecture.
Grading: Letter grade only.

Prerequisites: Computer Information Systems 1.

Introduction to networking fundamentals. Topics include theory, terminology, Network Operating Systems, the OSI model, protocols, and security. Hands-on instruction in the installation, configuration, administration, diagnostics, and trouble-shooting of computer networks.

**98A, B, C, D Independent Study: Computer Information Systems (1, 2, 3, or 4)**

(Prerequisite: Computer Information Systems 1.)

Hours: 16-18 lecture.
Grading: Letter grade only.

Prerequisites: Computer Information Systems 1.

Special interest lecture course for students who wish further exploration in specific areas of computer information systems. Topics vary and are determined by the instructor. The minimum credit hours for any one course are based on the schedule of classes for the term. It may be taken four times regardless of the unit combination. May require prerequisites and/or corequisites based on the content of the course.

**492A-H Special Topics: Computer Information Systems (1-6)**

(Prerequisite: Computer Information Systems 1.)

Hours: 15-18 lecture.
Grading: Letter grade only.

Special topics in computer information systems to accommodate the students’ knowledge of skills in specific computer information system fields. Topics will be selected each semester by the instructor. May be taken four times, however, no single-subject, special-interest class may be repeated. May require corequisites and/or prerequisites based on the content of the course.

**496A, B, C, D Internships in Computer Information Systems (1, 2, 3, or 4)**

(Prerequisite: Completion of Computer Information Systems 1 or equivalent experience.)

Hours: 60 lecture.
Grading: Letter grade only.

Supervised internship in cooperation with private or public sector employers. Designed to apply knowledge and learn new skills directly related to the student’s program of study outside of the normal classroom environment. Placement is arranged through the instructor. Participation requirements may vary with the job setting. May be taken up to four times, for a maximum of twelve units credit.

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**Computer Information Systems: Cisco Internetworking (CISCO)**

**1 Cisco Internetworking I (4)**

(Prerequisite: Completion of Computer Information Systems 1.)

Hours: 64-72 lecture.
Grading: Letter grade only.

Advisory: Completion of Computer Information Systems 1 or equivalent experience.

First in a four-course sequence that qualifies students to take the Cisco Certified Entry Networking Technician (CCENT) and the more advanced Cisco Certified Network Associate (CCNA) certifications. Topics include: routing and switching, network protocols, and troubleshooting. Students gain hands-on experience with Cisco devices and manage the software. Comprehensive review of all topics covered in Cisco I and II in preparation for the CCENT certification exam. May be taken three times.

**2 Cisco Internetworking II (4)**

(Prerequisite: Completion of Computer Information Systems 1 or equivalent experience.)

Hours: 64-72 lecture.
Grading: Letter grade only.

Advisory: Completion of Computer Information Systems 1 or equivalent experience.

Second in a four-course sequence that qualifies students to take the Cisco CCENT and CCNA certifications. Topics include: implementing basic LAN and WAN connectivity using routers and switches, TCP/IP addressing, network protocols, and troubleshooting. Students gain hands-on experience with Cisco devices and manage the software. Comprehensive review of all topics covered in Cisco I and II in preparation for the CCENT certification exam. May be taken three times.
3 Cisco Internetworking III (4)  
(CSU)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Computer Information Systems: Cisco Internetworking 2 or equivalent experience.  
Third in a four-course sequence that qualifies students to take the Cisco CCNA examination. Topics include: switching basics and intermediate routing; command line interface and configuration of routers and switches for wired and wireless networks; Virtual LANs (VLANs), Virtual Trunking Protocol (VTP), and Spanning Tree Protocol (STP); advanced IP addressing techniques; Variable Length Subnet Masking (VLSM); intermediate routing protocols such as RIPv2, EIGRP, and OSPF; and network security issues, troubleshooting, and management. May be taken three times.  
0708.00  

4 Cisco Internetworking IV (4)  
(CSU)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Computer Information Systems: Cisco Internetworking 3 or equivalent experience.  
Final course in a four-course sequence that qualifies students to take the Cisco CCNA examination. Topics include: network design and security policies; more advanced LAN/WAN technologies; terminology and IP addressing techniques; IPv6, NAT, PAT and DHCP; Frame relay, Cable, DSL, PPP, VPN, VoIP, and Wireless. Comprehensive review of all topics covered in Cisco I, II, III, and IV courses in preparation for the CCNA certification exam. May be taken three times.  
0708.00  

415 Cisco Internetworking V (4)  
(Degree-applicable)  
Hours: 64-72 lecture.  
Grading: Letter grade with option for pass/no-pass grade.  
Advisory: Completion of Computer Information Systems: Cisco Internetworking 4 or current CCNA certification or equivalent experience.  
Building Scalable Cisco Internetworks (BSCI). Topics include: overview of converged and scalable routed internetworks. Advanced routing principles and protocols, EIGRP, OSPF in multiple areas, IS-IS, and BGP for enterprise ISP connectivity. Route optimization and routing features, manipulating routing updates; redistribution, filtering, and multicasting. Advanced IP address management: IPv4 and IPv6. Qualifies students to take the Cisco Level 5 examination. May be taken three times.  
0708.00  

416 Cisco Internetworking VI (4)  
(Degree-applicable)  
Hours: 64-72 lecture.  
Grading: Letter grade with option for pass/no-pass grade.  
Advisory: Completion of Computer Information Systems: Cisco Internetworking 4 or current CCNA certification or equivalent experience.  
Implementing Secure Converged Wide-Area Networks (ISCW). Topics include secure teleworker access and configuration; data over cable: DSL; Frame-mode MPLS; site-site IPSec VPN; GRE tunneling; Cisco EZVPN; authentication, authorization, accounting (AAA), device hardening; IOS firewall and threat defense features; intrusion detection systems (IDS); and intrusion prevention systems (IPS). Qualifies students to take the Cisco Level 6 examination. May be taken three times.  
0708.00  

417 Cisco Internetworking VII (4)  
(Degree-applicable)  
Hours: 64-72 lecture.  
Grading: Letter grade with option for pass/no-pass grade.  
Advisory: Completion of Computer Information Systems: Cisco Internetworking 4 or current CCNA certification or equivalent experience.  
Building Secure MultiLayer Switched Networks (BSCSM). Topics include use of routing and switching technologies together, virtual LANs (VLANs), inter VLAN routing, virtual transport protocol (VTP), spanning tree protocol (STP), and redundancy technologies such as HSRP and VRRP. Access control and security issues, port security, root guard, MAC flooding, rogue devices, and spoofing. Implement support for wireless and voice over IP (VoIP). Qualifies students to take the Cisco Level 7 examination. May be taken three times.  
0708.00  

418 Cisco Internetworking VIII (4)  
(Degree-applicable)  
Hours: 64-72 lecture.  
Grading: Letter grade with option for pass/no-pass grade.  
Advisory: Completion of Computer Information Systems: Cisco Internetworking 4 or current CCNA certification or equivalent experience.  
Optimizing Converged Networks (ONT). Topics include optimizing quality of service (QoS), converged network supporting voice over IP (VoIP), wireless and security applications, voice network implementation, Network Based Applicable Recognition (NBAR), traffic classification, marking, congestion management, link efficiency mechanisms, policing, shaping, and Auto-QoS. Implement, configure, and manage a Wireless (WLAN) network, security, encryption, authentication, QoS, and management. Qualifies students to take the Cisco Level 8 examination. May be taken three times.  
0708.00  

492A-H Special Topics: CIS Cisco Internetworking (.5-6)  
(Degree-applicable)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Special interest lecture course for students who wish further exploration in specific areas of Cisco Internetworking. Topics vary and are determined by the instructor. See the schedule of classes for current term emphases. May be taken four times regardless of the unit combination, however, no single-subject, special interest class may be repeated. May require prerequisites and/or corequisites based upon the content of the course.  
0708.00  

402 Fundamentals of Game Development II (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Computer Information Systems: Game Development 401.  
Game development using creation software and development tools. Topics include: game design methods; content development, including graphics and sound; game logic; programming concepts such as objects, properties, methods, and events; basic concepts of movement and collision; beta testing; and identifying and fixing bugs. May be taken four times.  
0707.10  

403 Fundamentals of Game Programming (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Computer Information Systems: Game Development 401.  
Introduction to game programming using a popular computer game programming language. Fundamentals of planning, syntax, logic, testing, debugging, and documentation in the development of computer games. May be taken four times.  
0707.10  

420 Game Development Using Flash (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Computer Information Systems: Game Development 401.  
Advisory: Completion of Computer Information Systems: Internet and Web Development 420A.  
Game development using Macromedia Flash. Topics include: fundamentals of games and logic, game development, positioning and movement of elements with Flash, collision detection and reaction, graphics, sound, animations, ActionScript for the creation of games and user interfaces, and testing and debugging projects. May be taken four times.  
0707.10  

401 Microcomputer Hardware (3) [Cx]  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Computer Information Systems 1.  
Set-up, troubleshooting, and analysis of microcomputers and related equipment. Troubleshooting techniques, configuring (upgrading) computers, and interaction between hardware and software. May be taken three times.  
0708.20  

405 A+ Certification Preparation (1.5)  
(Degree-applicable)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Computer Information Systems: Hardware and Support 401.  
A practical course to prepare students for the A+ Certification exams. Subjects include operating system basics, safety, customer relations, and a review of computer hardware issues. The A+ Certification exams are administered by independent testing organizations. May be taken twice.  
0707.20
410 Desktop Support Certification Preparation (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Computer Information Systems: Hardware and Support 401.  
Resolving end-user problems through configuring and troubleshooting the current Microsoft Operating System (OS). Learn about hardware devices and drivers, network protocols, and application programs. Helps prepare students for the Microsoft Certified Desktop Support Technician (MCDST) certification exam, which is administered by an outside agency. May be taken four times. 0708.20

420 Computer Maintenance for the Home and Small Business User (1.5)  
(Degree-applicable)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
An introductory, hands-on course in upgrading, troubleshooting, and maintaining the home or small business computer. Topics include: computer basics and terminology; determining when and how to upgrade the motherboard; adding drives, expansion cards, memory, peripherals, and other system components; use of utility and anti-virus software; and safety procedures. May be taken three times. 0708.20

420A-H Special Topics: CIS Hardware and Support (1.5-6)  
(Degree-applicable)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Special interest lecture course for students who wish further exploration in specific areas of computer hardware and support. Topics vary and are determined by the instructor. See the schedule of classes for current term emphases. May be taken four times regardless of the unit combination, however, no single-subject, special interest class may be repeated. May require prerequisites and/or corequisites based upon the content of the course. 0708.20

COURSE DESCRIPTIONS

410 WebMaster Tools (1.5) (Cx)  
(Degree-applicable)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Computer Information Systems: Internet and Web Development 70.  
Tools used by the Webmaster to develop and administer an Intranet/Internet Website. Topics include: advanced HTML/XHTML programming, JavaScript, Dynamic HTML, XML, Web Publishing, and the use of Cascading Style Sheets (CSS) for formatting. May be taken three times. 0709.00

412 Web Development: Microsoft FrontPage/Expression (3.0) (Cx)  
(Degree-applicable)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Prerequisites: Computer Information Systems: Internet and Web Development 412A.  
Advanced concepts in the use of Microsoft FrontPage. Topics include: managing the site on a server, source control, creating a discussion group, connecting to and querying a database, processing data, modifying HTML, and working with Microsoft Office components and Cascading Style Sheets (CSS). May be taken three times. 0702.10

412B Web Development: Advanced Microsoft FrontPage (1.5)  
(Degree-applicable)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Prerequisite: Computer Information Systems: Internet and Web Development 412A.  
Topics include: managing the site on a server, source control, creating a discussion group, connecting to and querying a database, processing data, modifying HTML, and working with Microsoft Office components and Cascading Style Sheets (CSS). May be taken three times. 0709.00

414 JavaScript Programming (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Computer Information Systems: Internet and Web Development 70.  
Principles of JavaScript programming. Topics include: integrating JavaScript and HTML; creating pop-up windows; adding scrolling messages; validating forms; enhancing the use of images and form objects; working with cookies, arrays, and frames; and developing an e-commerce shopping cart application. 0707.10

420B Web Development: Flash ActionScript Programming (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Computer Information Systems: Internet and Web Development 420A.  
Web development using ActionScript for Macromedia Flash, to create web-based applications and programs. Topics include: ActionScript and object oriented programming basics (variables, operators, conditionals, functions, methods, classes, inheritance); working with arrays, objects, and movie clips; user input; interactivity; Dynamic data exchange; server side scripting; and using XML with Flash. May be taken four times. 0707.10

423 Web Development: Dreamweaver (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Computer Information Systems: Internet and Web Development 70.  
Principles of Web development using Macromedia Dreamweaver. Topics include: the Dreamweaver interface, the object panel and other tools, HTML integration and editing, images, text, linking, lists, tables, tracing images, layers, frames, rollovers, Cascading Style Sheets (CSS), Dynamic HTML forms, publishing, Fireworks, and Flash files. May be taken four times. 0709.00

430A Web Development: CGI/Perl Programming (1.5)  
(Degree-applicable)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Computer Information Systems: Internet and Web Development 70.  
Introduction to the use of Perl in creating Common Gateway Interface (CGI) programs, dynamic pages, and information processing through a Web server. Topics include: Perl syntax, Web servers, CGI Program Interface, parsing and decoding CGI input as user data, scalars, arrays, hashes, and testing and debugging. May be taken three times. 0709.00

432A Web Development: Active Server Pages (1.5)  
(Degree-applicable)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Computer Information Systems: Internet and Web Development 70.  
Introduction to the development of Active Server Pages (ASP). Topics include: VBScript, basic program structures, data types and variables, error handling and debugging, server objects and components, and data-driven applications. May be taken three times. 0707.10

436 Web Development: PHP/MySQL (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Computer Information Systems: Internet and Web Development 70.  
Building Web-based applications using PHP in conjunction with MySQL to create database-driven Web sites. Topics include an introduction to PHP and syntax, configuring a Web server for use with PHP, programming in PHP using basic scripting, data types, looping, conditional constructs, functions, operators, lists and arrays, databases and data files, e-mail, forms, and cookies. May be taken three times. 0709.00

COMPUTER INFORMATION SYSTEMS: INTERNET AND WEB DEVELOPMENT (CISIWEB)
492A-H Special Topics: CIS Internet and Web Development (.5-6)  
(Degree-applicable)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Special interest lecture course for students who wish further exploration in specific areas of Internet and Web development. Topics vary and are determined by the instructor. See the schedule of classes for current term emphases. May be taken four times regardless of the unit combination, however, no single-subject, special interest class may be repeated. May require prerequisites and/or corequisites based upon the content of the course.  
0709.00

413 TCP/IP (1.5)  
(Degree-applicable)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Prerequisite: Computer Information Systems 50.  
Study of Transmission Control Protocol/Internet Protocol (TCP/IP) and its implementation on various operating systems. Helps prepare students for the Microsoft Certified Professional (MCP), Microsoft Certified Systems Engineer (MCSE), and CompTIA exams. May be taken four times.  
0708.10

414 Managing a Microsoft Network Environment (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Computer Information Systems: Networking 11.  
Advanced study of the management and support of a Microsoft network environment. Helps prepare students for the Microsoft Certified Professional (MCP), Microsoft Certified Systems Administrator (MCSA), and Microsoft Certified Systems Engineer (MCSE) exams. May be taken four times.  
0708.10

415 Administering a Microsoft Network Infrastructure (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Computer Information Systems: Networking 11.  
Advanced study in designing, using, maintaining, and troubleshooting the Microsoft network infrastructure. Helps prepare students for the Microsoft Certified Professional (MCP), Microsoft Certified Systems Administrator (MCSA), and Microsoft Certified Systems Engineer (MCSE) exams. May be taken four times.  
0708.00

420 Installing a Home and/or Small Business Network (1.5)  
(Degree-applicable)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Prerequisite: Computer Information Systems: Networking 11.  
Basic hands-on course on installing a home and/or a small business network. Increase productivity by establishing a network to share hardware, software, and Internet connections. Additional topics include: remote access, network security, broadband, and wired versus wireless networks. May be taken three times.  
0708.10

441 Firewalls and Network Security Administration (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Computer Information Systems: Networking 440.  
Introduction to firewalls and other network security components. Examination of firewalls in context with other elements needed for effective security throughout the network, including intrusion detection systems, proxy servers, encryption, and virtual private networks. May be taken three times.  
0708.10

442 Network Disaster Recovery Planning (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Computer Information Systems: Networking 440.  
Response to system disasters and the subsequent restoration of normal operations. Step-by-step processes needed to develop, implement, and manage a disaster recovery plan. Topics include: risk assessment; identifying critical business activities and recovery priorities; establishing crucial contacts during disasters; developing interim procedures for handling and protection of materials, resources, and documentation; and appropriate responses to computer crime and cyber attacks. May be taken three times.  
0708.10

445 Windows Security Administration (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Computer Information Systems: Networking 11.  
Comprehensive overview of security features in Windows Server. Security configuration, management, and networking functionality in stand-alone, large, and small network environments. Students learn to configure and support secure environments running Windows Server. Topics include: security risks, authentication protocols, domains, trees, PKI security enhancements, DNS and DHCP security features, remote access, and Internet usage policies. Helps prepare students for the Microsoft Security certification examinations. May be taken three times.  
0708.10

447 Linux Security Administration (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Linux networking and security fundamentals, including firewalls, encryption, and network intrusion detection. Focus on problem-solving through hands-on experience. May be taken three times.  
0708.10

492A-H Special Topics: CIS Networking (.5-6)  
(Degree-applicable)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Special interest lecture course for students who wish further exploration in specific areas of computer networking. Topics vary and are determined by the instructor. See the schedule of classes for current term emphases. May be taken four times regardless of the unit combination, however, no single-subject, special interest class may be repeated. May require prerequisites and/or corequisites based upon the content of the course.  
0708.10
Computer Information Systems: Programming (CISPROG)

1 Introduction to Computer Programming (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Prerequisite: Computer Information Systems 1.
Introduction to the principles of computer programming.
Topics include the program development life cycle, control structures, and object-oriented programming. A popular programming language will be used. May be taken two times. 0707.10

3 Fundamentals of Visual Basic Programming (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Prerequisite: Computer Information Systems 1.
Beginning Visual Basic programming for business applications. Emphasis on problem analysis, solution planning, and object oriented programming solutions. May be taken three times. 0707.10

92A-H Special Topics: CIS Programming (.5-6) (CSU)
Hours: 16-18 hours/term for each unit of credit.
Grading: Letter grade only.
Special interest lecture course for students who wish further exploration in specific areas of computer programming.
Topics vary and are determined by the instructor. See the schedule of classes for current term emphases. May be taken four times regardless of the unit combination, however, no single-subject, special interest class may be repeated. May require prerequisites and/or corequisites based upon the content of the course. 0707.10

403 Advanced Visual Basic Programming (3) (Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Prerequisite: Computer Information Systems: Programming 2.
Advanced Visual Basic programming for business applications. Emphasis on report generation, database interface, and project design. May be taken three times. 0707.10

416 Microsoft Access VBA Programming (3) (Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Prerequisite: Computer Information Systems 15.
Introduction to the use of the macro and Visual Basic language in Microsoft Access to develop applications. Focus on the concepts of object-oriented programming, programming logic, and structure. May be taken three times. 0707.20

430 Oracle Database Fundamentals (3) (Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Prerequisite: Computer Information Systems 1.
Database development using SQL and PL/SQL. Create and modify database tables. Insert, update, delete, and view data. Topics include: group functions, nested queries, character strings, decision and loop structures, and the application development tools for creating forms and reports. May be taken three times. 0707.20

492A-H Special Topics: CIS Programming (.5-6) (Degree-applicable)
Hours: 16-18 hours/term for each unit of credit.
Grading: Letter grade only.
Special interest lecture course for students who wish further exploration in specific areas of computer programming.
Topics vary and are determined by the instructor. See the schedule of classes for current term emphases. May be taken four times regardless of the unit combination, however, no single-subject, special interest class may be repeated. May require prerequisites and/or corequisites based upon the content of the course. 0707.10

Computer Science (CS)

1 Fundamentals of Computer Science (3) (CSU; UC credit limitations)
Hours: 48-54 lecture.
Grading: Letter grade only.
Prerequisite: Mathematics 61.
Survey of the computer science field. Familiarizes science, computer science, and engineering students with elementary computer science concepts and methods. Topics include: hardware, software, computer architecture, memory and registers, input-output data operations, storage, information control, problem solving, and Object Oriented Programming (OOP). 0706.00

21 Fundamentals of C++ Programming (3) (Cs)
Hours: 48-54 lecture.
Grading: Letter grade only.
Prerequisite: Computer Science 1 or Computer Information Systems: Programming 1.
Introduction to the concepts, terminology, syntax, and uses of the C++ programming language. May be taken three times. 0707.10

492A-H Special Topics: Computer Science (.5-6) (Degree-applicable)
Hours: 16-18 hours/term for each unit of credit.
Grading: Letter grade only.
Specializations in computer science. See class schedule for current topic. May be taken four times regardless of the unit combination. No single-subject, special-interest class may be repeated. 0706.00

Consumer Studies (CONSUM)

(SEE ALSO NUTRITION AND FOOD)

11 Housing and Environment (3) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Planning, evaluation, and purchasing housing to meet family and individual needs in relation to design and current social, economic, and environmental factors. 1301.00

40 Life Management (3) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Understanding and using resources which influence life management skills. Family structure, goal setting, career planning, value conflicts, and resources for functioning effectively in society. 1301.00

50 Consumer Issues (3) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Management of income and expenditures for the individual and family throughout the life cycle, to include advertising, consumer rights and responsibilities, purchasing skills, fraud, consumer redress, budgeting, and savings for financial security. 1301.00

92A-H Special Topics: Consumer Studies (.5-6) (CSU)
Hours: 16-18 hours/term for each unit of credit.
Grading: Letter grade only.
Special emphasis courses in foods, nutrition, consumer education, or life management. See class schedule for the current topic. May be taken four times regardless of the unit combination. No single-subject, special-interest class may be repeated. 1301.00

96A,B,C Independent Study: Consumer Studies (1, 2, 3) (CSU credit limitations)
Grading: Letter grade only.
Limitation on Enrollment: Instructor signature is required for registration.
Special project course designed for the capable, well-motivated student. Each student explores and develops a project or a paper on an area of personal interest. Nature and extent of the project must be decided by student and instructor before the student may sign up for the course. Type and extent of the project determines the number of units allowed. May be taken three times, regardless of the unit combination. 1301.00

420 Introduction to Customer Services (1.5) (Degree-applicable)
Hours: 24-27 lecture.
Grading: Letter grade only.
Delivery of high quality customer-focused service in the public and private sectors, through creation of positive first and lasting impressions via telephone, Internet, and in-person contact. Use of salesmanship, negotiation skills, product knowledge, and service strategies to resolve problems and build customer loyalty. 1301.00

482 Industry Internship: Consumer Studies (1) (Degree-applicable)
Hours: 60 hours/term (unpaid) or 75 hours/term (paid) on-site work experience.
Grading: Letter grade only.
Limitation on Enrollment: Consent of instructor is required prior to registration.
Prerequisite: Consumer Studies 40 and 50.
Supervised industry internship in cooperation with private sector employers or non-profit groups. Provides students expanded, hands-on learning opportunities to apply knowledge and learn new skills, outside of the classroom environment, that are directly related to their program of study and employment within the consumer services field. Placement is arranged by/approved by the instructor. Participation requirements may vary with the job setting. 1301.10
COOPERATIVE EDUCATION
(COPEP)
(WORK EXPERIENCE COURSES MAY ALSO BE FOUND WITHIN SOME DISCIPLINES.)

96A, B, C, D  Cooperative Education: Career Field Studies (1, 2, 3, or 4)
(CSU credit limitations)
Hours: 60 hours/term (unpaid) or 75 hours/term (paid) on-site work experience for each unit of credit.
Grading: Letter grade only.
Corequisite: Employment directly related to major and enrollment in at least seven units including Cooperative Education.

Work experience that provides new or expanded learning opportunities or responsibilities directly related to the student’s major. Career and professional development seminars include study of knowledge, judgments, skills and attitudes essential for success in the world of work. May be taken four times to a maximum of 16 units regardless of the unit combination. 4932.00

98 Independent Study: Cooperative Education (1)
(CSU credit limitations)
Grading: Letter grade only.
Limitation on Enrollment: 2.0 GPA and instructor signature is required for registration.
A series of instructional activities including special assignments providing opportunities to develop self, career and job related assessment and development skills. Career development related projects, seminars and other individualized activities may be required. May be taken twice. 4932.00

49T-A D  Cooperative Education: General Work Experience (1, 2, 3, or 4)
(Degree-applicable)
Hours: 60 hours/term (unpaid) or 75 hours/term (paid) on-site work experience for each unit of credit.
Grading: Letter grade only.
Corequisite: Enrollment in at least seven units including General Work Experience.
Supervised employment which is intended to assist students in acquiring desirable work habits, attitudes and career awareness. The work experience need not be related to the students educational goals. Career and professional development seminars include study of knowledge, judgments, skills and attitudes essential for success in the world of work. May be taken four times to a maximum of sixteen units, regardless of the unit combination. 4932.00

CORRECTIONAL SCIENCE (CRSC)

While most Correctional Science courses may be challenged for Credit-by-Examination, a limitation to the number of challenges may apply. Contact the office of the Dean of Social and Behavioral Sciences for more information.

1 Introduction to Correctional Science (3) [Cx]
(CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Philosophical and practical overview of the history, evolution and current practices of the field of corrections, including extensive examination of the roles and responsibilities of the three prongs of the United States criminal justice system. Introduction to correctional systems, processes, clients, case law and client rights. Exploration of the diverse career opportunities available at the city, county, state, and federal levels. 2105.10

2 Control and Supervision of Inmates (3) [Cx]
(CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Correctional Science 1.
Inmate supervision in correctional institutions, including security procedures, contraband control, treatment programs, and prison dynamics. Prison staff responsibilities and the effect of their application on inmate culture and institution characteristics. Current and historical methods of controlling inmates. 2105.10

3 Correctional Law (3) [Cx]
(CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Legal aspects of corrections from conviction to release. Discussion of laws dealing with organization of state prisons, execution of sentence, terms of imprisonment and parole. Regulations concerning escapes, executive clemency, and prison records. Survey of correctional programs at the various levels of government from a legal perspective. Legal and due process rights of individuals, balancing rights of inmates versus needs of society. 2105.10

4 Public Relations and Corrections (3) [Cx]
(CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Various aspects of public relations and methods of communication with the public concerning correctional goals and concepts. Survey of problems and methods of improving attitudes toward correctional programs. Relations with criminal justice agencies including law enforcement and other government organizations, prison-prevention groups, and job-placement services. Designed for both pre-service and in-service personnel. 2105.10

5 Crime and Delinquency (3) [Cx]
(CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Review of the impact of crime on modern society, types of behavior which produce it, and implications for the offender, the victim, and the justice system. Survey of society’s responses to the problem. Economic, psychological, and sociological issues are studied to determine motivations and control methods. The basic nature of crime. Criminal behavior and types of crime. Effects on society and victims. 2105.10

6 Correctional Interviewing and Counseling (3) [Cx]
(CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Role of basic interviewing and counseling processes using appropriate techniques and theories in confidence building which may be used by the correctional employee in client interviews and counseling. Stresses the importance of an open and receptive attitude for learning and the processes necessary for positive rapport and communication. 2105.10

7 Probation and Parole (3) [Cx]
(CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Overview of the history and philosophical foundations of probation and parole in the United States. Organization and operations of probation and parole agencies as particular segments of the criminal justice system. Probation as part of the judicial process, and parole as part of the corrections system. Theoretical concerns exemplified in probation and parole supervision, as well as the practical aspects of probation and parole services. Review and evaluation of community-based corrections and the programs included in response to criminal behavior. Issues and problems relating to the pre-sentence report, determinate versus indeterminate sentencing, the variety of roles of the probation and parole officer, and the legal decisions affecting probation and parole practice. Review of the relevant research in probation and parole. 2105.10

8 Ethnic Group Relations (3) [Cx]
(CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Survey of minority roles, problems, and relationships in correctional institutions and allied agencies. Impact and effect of stereotyping and prejudice in correctional work. Cultural and racial differences of clients and their effect upon rehabilitation programs. 2105.10

10 Violence in America (3) [Cx]
(CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Violence in America’s past, including lynch mobs, feuds, and vigilantes. Family violence including wife and child abuse. Types of violent homicide, including mass murder, assassination, and rape. A goal of the class is to replace common stereotypes of the violent offender with a more realistic understanding of these criminals. 2105.10

409 The Female Victim/Offender (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Study of women involved in the criminal justice system both as victims and as offenders. Major theories of female victimization and criminality are presented. 2105.10

410 Street Gangs and Subcultures (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Introductory course exploring the history and development of gangs, current gang activity, and trends affecting the evolution of established gangs and the development of future gangs. Efforts by police, probation, and parole agencies in the prevention, intervention, and suppression of gangs. Motivational theories on why young people join gangs and the relationship between street and prison gangs. 2105.10

411 Juvenile Corrections (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Study of the juvenile justice system from arrest through juvenile court, probation, juvenile hall, and short-term county treatment facility, and programs and procedures of the California Youth Authority. 2105.10

450 Correctional Report Writing (3) [Cx]
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Experience in a public justice agency is recommended.
Essential elements of report writing. Emphasis on correct sentence structure, grammar issues, writing style, and accuracy in reporting the facts relating to a crime or incident. Actual reports are examined and analyzed to help clarify the purpose and structure of a correctional report. 2105.10
492A-H Special Topics: Correctional Sciences (.5-6)  
(Degree-applicable)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Pursues certain specializations in correctional science.  
See class schedule for the current topic. May be taken four 
times regardless of the unit combination. However, 
no single-subject, special interest topic may be 
repeated.  
2105.10

501 Preparation for Correctional Officer Examination Process (2)  
(Non-degree-applicable)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Preparation for students who plan to apply for a cor-
rectional officer position. Includes mock orals and 
specific instruction for completing the personal histo-
ry statement.  
2105.10

DANCE (DANCE)

1 Survey of Dance (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Introduction to the rudiments of the dancer’s craft with 
emphasis on ballet, modern, jazz, tap, folk, and 
square. Dance as an art form. History, techniques, 
combinations, and vocabulary.  
1008.00

2 Stage Movement (3)  
(Also available as Theatre 2)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Study of physical movement as it relates to the body 
on stage. Control and use of parts of the body, move-
ment sequences, and conscious development of 
movement habits.  
1008.00

4A Ballet IA (1.5)  
(CSU; UC)  
Hours: 48-54 studio.  
Grading: Letter grade only.  
Skill acquisition and practice of fundamental classical 
ballet barré and center technique at the beginning 
level. Study of ballet theory, history, and vocabulary.  
May be taken twice.  
1008.00

4B Ballet IB (1.5)  
(CSU; UC)  
Hours: 48-54 studio.  
Grading: Letter grade only.  
Advisory: Completion of Dance IA.  
Skill improvement in fundamental classical ballet barré 
and center technique at the advanced beginning level. 
Continued study of ballet theory, history, and vocabu-
ulary. May be taken twice.  
1008.00

6A Ballet IIA (1.5)  
(CSU; UC)  
Hours: 48-54 studio.  
Grading: Letter grade only.  
Advisory: Completion of Dance IB.  
Skill improvement and added complexity in classical 
ballet barré and center technique. Development and 
practice of intermediate skill level combinations with 
modifications and complications. Continued study of 
ballet theory, history, and vocabulary. May be taken 
twice.  
1008.00

6B Ballet IIB (1.5)  
(CSU; UC)  
Hours: 48-54 studio.  
Grading: Letter grade only.  
Advisory: Completion of Dance IA.  
Skill improvement in increasingly complex classical 
ballet barré and center technique. Further development 
and practice of intermediate/advanced skill combina-
tions with modifications and complications. Con-
tinued study of theory, history, and vocabulary. May be 
taken twice.  
1008.00

10A Jazz Dance I (1)  
(CSU; UC)  
Hours: 32-36 studio.  
Grading: Letter grade only.  
Basic jazz dance, vocabulary, and dance technique.  
May be taken twice.  
1008.00

10B Jazz Dance I (1)  
(CSU; UC)  
Hours: 32-36 studio.  
Grading: Letter grade only.  
Advisory: Completion of Dance 10A.  
Basic jazz dance, vocabulary, and dance technique.  
May be taken twice.  
1008.00

20A Modern Dance (1)  
(CSU; UC)  
Hours: 32-36 studio.  
Grading: Letter grade only.  
Basic modern dance vocabulary and dance tech-
iques. May be taken twice.  
1008.00

20B Modern Dance (1)  
(CSU; UC)  
Hours: 32-36 studio.  
Grading: Letter grade only.  
Advisory: Completion of Dance 20A.  
Basic modern dance vocabulary and dance tech-
iques. May be taken twice.  
1008.00

30A Tap Dance I (1)  
(CSU; UC)  
Hours: 32-36 studio.  
Grading: Letter grade only.  
Basic tap dance technique and routines. May be taken 
twice.  
1008.00

30B Tap Dance I (1)  
(CSU; UC)  
Hours: 32-36 studio.  
Grading: Letter grade only.  
Advisory: Completion of Dance 30A.  
Basic tap dance technique and routines. May be taken 
twice.  
1008.00

42 Dance Workshop (3)  
(CSU; UC)  
Hours: 144-162 laboratory.  
Grading: Letter grade only.  
Limitation on Enrollment: Students must show nominal 
proficiency in dance by auditions, or obtain consent of 
the instructor. Practical theatre dance experience for 
students. Requires participation in either a dancing or pro-
duction role. May be taken four times.  
1008.00

50A Jazz Dance II (1)  
(CSU; UC)  
Hours: 32-36 studio.  
Grading: Letter grade only.  
Advisory: Completion of Dance 10B.  
Intermediate jazz dance techniques and vocabulary.  
May be taken twice.  
1008.00

50B Jazz Dance II (1)  
(CSU; UC)  
Hours: 32-36 studio.  
Grading: Letter grade only.  
Advisory: Completion of Dance 50A.  
Intermediate jazz dance techniques and vocabulary.  
May be taken twice.  
1008.00

60A Tap Dance II (1)  
(CSU; UC)  
Hours: 32-36 studio.  
Grading: Letter grade only.  
Advisory: Completion of Dance 30B.  
Intermediate tap dance technique and routines. May be 
taken twice.  
1008.00

60B Tap Dance II (1)  
(CSU; UC)  
Hours: 32-36 studio.  
Grading: Letter grade only.  
Advisory: Completion of Dance 60A.  
Intermediate tap dance technique and routines. May be 
taken twice.  
1008.00

92A-H Special Topics: Dance (.5-6)  
(CSU; UC credit limitations)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Special interest lecture course for students who wish 
more exploration in specific areas of dance. Topics 
will vary and will be determined by the instructor. See 
the schedule of classes for current term emphases. 
May be taken four times regardless of the unit combi-
nation, however, no single-subject, special interest 
class may be repeated. May require prerequisites 
and/or corequisites based upon the content of the 
course.  
1008.00

925A-H Special Topics Studio: Dance (.5-6)  
(CSU; UC credit limitations)  
Hours: 32-36 hours/term studio for each unit of credit.  
Grading: Letter grade only.  
Special interest studio course for students who wish 
more exploration in specific areas of dance. Topics 
will vary and will be determined by the instructor. See 
the schedule of classes for current term emphases. 
May be taken four times regardless of the unit combi-
nation, however, no single-subject, special interest 
class may be repeated. May require prerequisites 
and/or corequisites based upon the content of the 
course.  
1008.00

400 Hip Hop Dance (1)  
(Degree-applicable)  
Hours: 32-36 studio.  
Grading: Letter grade only.  
Basic techniques and styles of Hip Hop dance, includ-
ing musicality, rhythm, spatial awareness, and the 
basic and complex movements required to develop 
performance and choreographic skills. Critical viewing 
and analysis of Hip Hop dance choreography are 
emphasized. May be taken twice.  
1008.00

410 Dance Team/Cheerleading (3.5)  
(Degree-applicable)  
Hours: 112-126 scheduled-hours studio.  
Grading: Letter grade only.  
Limitation on Enrollment: Admission is by audition. 
Advisory: Previous dance training is recommended. 
Development of performance skills, focusing on hip 
hop and jazz style and techniques, for dance team 
members representing the college at football and bas-
ketball games, national competitions, and community 
events. Emphasis on competition-level performance 
skills, as well as the knowledge of dance team protocol 
and etiquette. May be taken four times.  
1008.00
420 Social Dance (1) (Degree-applicable)
Hours: 32-36 scheduled-hours studio.
Grading: Letter grade only.
Basic technique and styles of American and Latin ballroom dance includingalsa, tango, rumba, merengue, cha-cha, swing, waltz, and foxtrot with emphasis on partnering techniques, footwork, rhythms and musically and performance presentation. May be taken four times. 1008.00

DENTAL ASSISTING (DENTAL AND DA)
Student must furnish their own uniform and pay for a physical examination.

400 Dental Assisting Core Sciences (6) (Cx) (Degree-applicable)
Hours: 64-72 lecture; 96-108 laboratory
Grading: Letter grade only.
Core competencies and foundational skills. Topics include an overview of applicable biomedical terms and functions, dental anatomy, infection prevention and control, medical and dental emergencies, ethics and professionalism, patient interaction, dental charting, community health and diversity, and basic laboratory skills. 1240.10

410 Dental Assisting Preclinical Sciences (6) (Cx) (Degree-applicable)
Hours: 48-54 lecture; 144-162 laboratory.
Grading: Letter grade only.
Prerequisite: Dental Assisting 400.
Study and application of dental processes, performed in a preclinical setting. Students engage in an in-depth study of dental materials, instrumentation, procedures, protocols, and familiar with the various dental specialties. 1240.10

420 Radiography for Dental Assistants (6) (Cx) (Degree-applicable)
Hours: 48-54 lecture; 144-162 laboratory.
Grading: Letter grade only.
Prerequisite: Dental Assisting 400.
In-depth study of dental radiography. Topics include evolution of standard and digital radiography; basic principles, characteristics and terminology; oral physics and biological effects; sterilization and infection control; film types and exposures; safety procedures in the use and maintenance of equipment; placement and processing techniques; film mounting; error identification and correction; and the use of radiographs in diagnoses and treatment planning. Evaluation and documenting of pathologic intraoral findings during mouth inspections are also covered. Students must have preclinical and clinical assignments. 1240.10

430 Clinical Practice (6) (Cx) (Degree-applicable)
Hours: 288-324 laboratory.
Grading: Letter grade only.
Prerequisite: Dental Assisting 410.
Advisory: Completion of Dental Assisting 420.
Students are assigned to extramural (off-site) clinical facilities, which include general and specialty dental practices. Experiential objectives are the application of four-handed dentistry concepts, auxiliary utilization, direct patient care, and dental office procedures. Student participation in community and professional development activities that occur within the term is a required part of the course. May be taken twice. 1240.10

487 Advanced Clinical Applied Technology (1) (Cx) (Degree-applicable)
Hours: 48-54 laboratory.
Grading: Letter grade only.
Use of the ultrasonic scaler by the RDA in orthodontic cement removal only. Practice on mannequins and patients for experience. Advanced practice in fabrication of temporary anterior and posterior crowns and bridges using several different materials. Advanced orthodontic instrumentation and assisting. May be taken three times. 1240.10

492A-H Special Topics: Dental Assisting (.5-6) (Degree-applicable)
Hours: 16-18 hours/term lecture for each unit of credit.
Grading: Letter grade only.
A series of special topic lectures for students who desire in-depth exploration in specialized areas of dental assisting. May be taken for a total of 12 units regardless of the unit combination. 1240.10

492LA-H Special Topics Laboratory: Dental Assisting (.5-6) (Degree-applicable)
Hours: 48-54 hours/term laboratory for each unit of credit.
Grading: Letter grade only.
A series of special topic laboratories for students who desire in-depth exploration in specialized areas of dental assisting. May be taken four times regardless of the unit combination. 1240.10

496A,B,C,D Occupational Work Experience: Dental Assisting (.1, 2, 3, or 4) (Degree-applicable)
Hours: 48-54 hours/term unpaid for each unit of credit.
Grading: Letter grade only.
Occupational work experience that provides new or expanded learning opportunities or responsibilities directly related to the student’s major. Career and professional development seminars include study of knowledge, judgments, skills, and attitudes essential for success in the world of work. May be taken four times to a maximum of 16 units regardless of the unit combination. May require corequisites and/or prerequisites based on the content of the course. 1240.10

DISABILITY PROGRAMS AND SERVICES (DPS)
For all DPS courses: Students with specific disabilities and educational limitations should have a physician’s recommendation/release for class activities. This provides the instructor with information necessary to tailor a program to the needs and capabilities of the individual student. Students meeting criteria identified in Title 5, Section 56029, may repeat courses more than the stated number of times.

For DPS-657: Student must be identified under Title V regulations as a student with a verifiable disability. Student should have the willingness to work in large and small groups, individualized and/or laboratory settings, and the desire to develop vocational work skills, reading, and money handling as related to a vocation and independent living. Student must not be injurious to self or others.

500A Basic Skills for Students with Disabilities (1)
(Non-degree-applicable)
Hours: 48-54 self-paced laboratory.
Grading: Pass/No Pass grade only.
Individualized prescriptive instruction in mathematics, language mechanics, and reading for students with disabilities, using alternative methods of teaching and adaptive equipment. Appropriate criterion referenced and/or standardized assessments are used to determine students’ entry and exit level. May be taken four times, regardless of unit combination. 4930.30

505 Assessment of Learning Abilities and Limitations (.5) (Non-degree-applicable)
Hours: 24-27 self-paced, open-entry/exit laboratory.
Grading: Pass/No Pass grade only.
An assessment of learning strengths and limitations designed for students having difficulties in courses, or desiring assessment for possible inclusion in the learning disabilities portion of Disability Programs and Services. Perceptual, cognitive, and achievement testing is provided as a part of the course. May be taken twice. 4930.32

521 Basic Skills for Job Placement (1) (Non-degree-applicable)
Hours: 48-54 self-paced laboratory.
Grading: Pass/No Pass grade only.
Basic skills in reading, writing and mathematical concepts for job placement. Topics include: job search skills, on-the-job work performance expectations, and social behaviors necessary for competitive employment. May be taken four times. 4930.30

522A, B Basic Skills for Job Readiness (1, 2) (Non-degree-applicable)
Hours: 48-54 hours/term self-paced laboratory for each unit of credit.
Grading: Pass/No Pass grade only.
Basic skills in reading, writing and mathematical concepts applied to job training and independent living. May be taken four times, regardless of the unit combination. 4930.30

530 Basic Computer Skills for Students with Disabilities (1)
(Non-degree-applicable)
Hours: 48-54 self-paced laboratory.
Grading: Pass/No Pass grade only.
Individualized prescriptive course providing disabled students with the knowledge of computer software needed to build keyboarding skills, using a screen reading program. Students create effective documents utilizing adaptive software and hardware and develop transferable skills for use in mainstream courses and/or the work force. May be taken four times. 4930.30

532 Cognitive Retraining for Students with ABI/Stroke (1)
(Non-degree-applicable)
Hours: 48-54 self-paced laboratory.
Grading: Pass/No Pass grade only.
Individualized prescriptive instruction in independent life skills, prevocational skills, cognitive retraining, and community/social integration for students with ABI/Stroke, using alternative methods of teaching and adaptive equipment. Appropriate evaluation assessments are used to determine students’ entry and exit levels. May be taken four times. 4930.30
534 Self Advocacy/Empowerment for Students with Disabilities (1)  
(Non-degree-applicable)  
Hours: 48-54 self-paced laboratory.  
Grading: Pass/No Pass grade only.  
Prescriptive instruction emphasizing self advocacy and personal empowerment, individual and group survival skills, independent life skills, prevocational skills, and community/social integration. May be taken four times.  
4930.30

550 Basic Study Skills for Students with Disabilities (2)  
(Non-degree-applicable)  
Hours: 32-36 lecture.  
Grading: Pass/No Pass grade only.  
Skills in text reading, vocabulary development, note-taking, test-taking, and research paper preparation. Designed to provide useful alternative methods and techniques as appropriate to compensate for disabilities. May be taken four times.  
4930.30

575 Problem Solving for Job Readiness (1)  
(Non-degree-applicable)  
Hours: 48-54 self-paced laboratory.  
Grading: Pass/No Pass grade only.  
Open-entry/open-exit, self-paced laboratory course for job training and independent living. Students apply basic skills of reading, writing, and mathematical concepts to interpret and respond to specific vocational and/or practical living situations. Hands-on learning experiences aid in the development of appropriate work behaviors, social skills, and entry-level job skills. May be taken four times.  
4930.30

592A-H Special Topics: Disability Programs and Services (.5-6)  
(Non-degree-applicable)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Pass/No Pass grade only.  
Special interest course for students with disabilities who require more intensive instruction in specific areas of knowledge and concept comprehension. Topics are determined by the instructor. See the schedule of classes for current term emphasis. May be taken four times.  
4930.30

592LA-H Special Topics Laboratory: Disability Programs and Services (.5-6)  
(Non-degree-applicable)  
Hours: 48-54 hours/term laboratory for each unit of credit.  
Grading: Pass/No Pass grade only.  
Special interest laboratory course for students with disabilities who require more intensive instruction in a specific area of skill development. Topics are determined by the instructor. See the schedule of classes for current term emphasis. May be taken four times.  
4930.30

637 Basic Prevocational Education for Students with Disabilities (0)  
(Non-credit)  
Hours: Variable arranged  
Grading: Not graded.  
Self-paced, open-entry/open-exit course providing individualized assessment based on medical and/or professional verification of disability. Academic/vocational planning, orientation, and referrals to services, support programs, and agencies on- and off-campus. Class is designed to be responsive to the needs of varied cultures. May be repeated.  
4930.31

651 Job Placement Practicum for Students with Disabilities (0)  
(Non-credit)  
Hours: Variable arranged  
Grading: Not graded.  
Self-paced, open-entry/open-exit course offering individualized instruction in job development, job search techniques, job holding skills, work and disability payments, and the utilization of community rehabilitation resources for students with developmental, learning, and/or physical disabilities. Work experience, supported employment, and/or job placement and follow-up services are provided as a practicum for applying learned skills in a real work environment. May be repeated.  
4930.31

657 Vocational Skills for Students with Disabilities (0)  
(Non-credit)  
Hours: Variable arranged  
Grading: Not graded.  
Self-paced, open-entry/open-exit course for adults with developmental disabilities, teaching the skills and attitudes that lead to increasing levels of production, independent participation in vocational areas, community-based activities, and independent living. Students learn acceptable behaviors and skills necessary to progress in vocational and independent living environments. Classes are held off-campus at facilities such as workshops, work activity, and occupational improvement programs. Students learn the basic academic subjects (including reading and math), and health and safety. Dependent upon the type of facility a student attends, and whether it is a day or evening program, additional curriculum may include: job search skills, job retention, basic sign language, training in interpersonal relationships and socialization, leisure and recreational activities, critical living skills, and work skills in janitorial and light clerical jobs. May be repeated.  
4930.31

DRAFTING (DRAFT)

20 Computer-Aided Drafting and Design (4) (Cx)  
(CSU)  
Hours: 48-54 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Advisory: Completion of Computer Information Systems 4 or Windows experience.  
Introduction to Computer Aided Drafting and Design (CADD) technology, terminology, and application, using an industry-standard program. Input using the keyboard and mouse; output to a printer or plotter; and create blocks with attributes, then extract that information into tables. Emphasis on two-dimensional working drawings. May be taken four times.  
0953.00

21 Mechanical Design I (3) (Cx)  
(CSU)  
Hours: 16-18 lecture; 96-108 laboratory.  
Grading: Letter grade only.  
Prerequisite: Drafting 20 or one year of high school drafting or engineering courses. Review of the basic concepts of technical drawing. Precision dimensioning and geometric tolerancing per ANSI Y14.5M standards emphasized. Additional experience in single and double auxiliary views, intersections and developments covered. The final drawing will require detail, assembly, and pictorial drawing knowledge. Assignments may be completed on the CAD system.  
0953.40

41 Computer-Aided Drafting and Design: Mechanical (4)  
(CSU)  
Hours: 32-36 lecture; 96-108 laboratory.  
Grading: Letter grade only.  
Prerequisite: Drafting 20.  
Advanced drafting techniques using the computer, with focus on mechanical applications. Emphasis on the creation of symbol libraries, bills of material, customizing menus, and other advanced topics. Use of paper and model space, referencing other drawings into an existing drawing, sheet sets, and advanced plotting techniques. Introduction to 3-dimensional CAD applications, and to other CAD software programs and applications. May be taken four times.  
0953.40

43 Three-Dimensional Computer Modeling and Solids Modeling (3)  
(CSU)  
Hours: 32-36 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Drafting 20.  
Advanced concepts and development of three-dimensional visualization skills. Drawing techniques for solid modeling and assembly modeling, using a CAD solid modeling program. Technique for changing a three-dimensional solid model drawing into an industrial standard orthographic projection drawing. May be taken three times.  
0953.00

50 Architectural Design I (3) (Cx)  
(CSU)  
Hours: 32-36 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Drafting 20 or one year of high school drafting. Theory and methods of architectural drawings, incorporating the fundamentals of good residential design. Topics include: line conventions; projection representation, dimensions, layout and traffic pattern accommodation, and the impact of building codes and UBC and FHA regulations. Students will draw the integration of topics concepts and the various plans needed for a complete set of working drawings, including a plot plan, foundation plan, floor plan, sections, details, and stairs.  
0953.10

51 Architectural Design II (3) (Cx)  
(CSU)  
Hours: 32-36 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Drafting 50.  
Design issues associated with more complex building and settings, including the impact of zoning, local codes, and challenging sites. Topics include: multiple story structures, split levels, complicated roof and foundation design, exterior embellishments, Title 24 and AHA compliance issues, heat loss and gain, energy costs calculation, and environmental impact. Students’ projects include presentation elevation perspectives and model construction for design study, presentation, and promotion.  
0953.10
53 Architectural Applications of CAD (4) (CSU)
Hours: 32-36 lecture; 96-108 laboratory.
Grading: Letter grade only.
Prerequisite: Drafting 20 and 51.
The use of computer-aided drafting software for architectural plans, including site plans, floor plans, elevations, construction details and other drawings as needed. Techniques in creative symbol libraries will be explored. May be taken three times. 0953.10

77 Industrial Design Applications (4) (Cx) (CSU)
Hours: 32-36 lecture; 96-108 laboratory.
Grading: Letter grade only.
Prerequisite: Drafting 22 or four years of high school mechanical drafting.
Application of drafting to the various industrial fields. Piping layouts, gear and cam design, precision dimensioning and schematic symbolism used in the structural and mechanical field. Assignments may be done using a CAD system. 0953.00

78 Advanced Design Applications (4) (Cx) (CSU)
Hours: 32-36 lecture; 96-108 laboratory.
Grading: Letter grade only.
Prerequisite: Drafting 22 or four years of high school drafting.
Drawings of machine parts in the various stages of manufacturing with required back-up items such as jigs, fixtures, and dies. Mapping and structural detailing. Assignments may be done using a CAD system. 0953.00

92A-H Special Topics: Drafting (.5-6) (CSU)
Hours: 16-18 hours/term lecture for each unit of credit.
Grading: Letter grade only.
Selected topics for students who wish to gain in-depth knowledge in specific areas of drafting. Topics will be determined after consultation with an instructor. May be taken four times regardless of the unit combination. However, no single-subject, special-interest class may be repeated. 0953.00

410 Building Trades Blueprint Reading (2) (Degree-applicable)
Hours: 16-18 lecture; 48-54 laboratory.
Grading: Letter grade only.
Blueprint reading and sketching with emphasis on answering practical, technical questions related to residential and commercial architectural buildings. Not open to students who have completed Drafting 50 or 51. 0953.10

413 Machine Trades and General Blueprint Reading (3) (Degree-applicable)
Hours: 32-36 lecture; 49-54 laboratory.
Grading: Letter grade only.
Blueprint reading and sketching with emphasis on industrial drawings of machine parts and assemblies. Orthographic projection and dimensioning. Introduction to ANSI Y 14.5M. 0953.00

442 Production Computer Aided Drafting (1.5) (Degree-applicable)
Hours: 16-18 lecture; 24-27 laboratory.
Grading: Letter grade only.
Prerequisite: Drafting 20.
Practice, competence, and increased speed in using the CAD program. Inclusion of notes and revisions on drawings; plotting of drawings at various scales; adjuncts to standard views, including the drawing and placing of auxiliary and sections; use of attributes and cross-references; and streamlined drafting techniques. May be taken four times. 0953.00

452 Light Commercial Construction Design (3) (Degree-applicable)
Hours: 32-36 lecture; 48-54 laboratory.
Grading: Letter grade only.
Prerequisite: Drafting 51.
Design and detailing of small business and manufacturing buildings. Emphasis on building codes, materials, layout, and functional equipment. Particular attention will be paid to environmental design. 0953.10

5 Oceanography (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Introduction to the marine sciences. Properties of water, air-sea interaction, ocean currents, waves, tides, beaches, marine life, marine resources, ocean pollution, and the nature and origin of the sea floor. 1919.00

8 Meteorology (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Study of the atmosphere. Emphasis on origin, composition, structure, and heat flow with the atmosphere. Resulting weather phenomena and climatic patterns will be analyzed. Eight-hour field trip required in addition to normal class meetings. 1930.00

9A Earth Science Honors Seminar (1) (CSU; UC credit limitations)
Hours: 16-18 lecture.
Grading: Letter grade only.
Honors component for Earth Science. Topics of interest are chosen by the instructor and students, and are presented in a seminar format. Prerequisites and/or corequisites are required. May be taken four times with change in topic emphasis. 1930.00

9A-H Special Topics: Earth Science (.5-6) (CSU credit limitations)
Hours: 16-18 hours/term lecture for each unit of credit.
Grading: Letter grade only.
Special-interest course of varying length for students who wish further exploration in specific areas of earth science. Topics will be determined by the individual instructor. This course may be taken four times regardless of the unit combination. However, no single-subject, special-interest class may be repeated. May require corequisites and/or prerequisites based on the content of the course. 1930.00

ECONOMICS (ECON)

1 Introduction to Economics (3) (CSU; UC credit limitations)
Hours: 48-54 lecture.
Grading: Letter grade only.
Origin of the economic institutions of capitalism and socialism; development of economics ideas and tools of analysis. The ideas of the great economists - Smith, Ricardo, Marx, Veblen, Marshall, Keynes, Friedman, and Galbraith. The U.S. economic system and economic issues of domestic and international importance, including unemployment, growth, the environment, deregulation, inflation, interest rates, price discrimination, and labor unions. 2204.00
2 Principles of Macroeconomics (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Origins of the U.S. economic system and institutions.  
Brief survey of economic systems, including capitalism and socialism.  
Theories and policies concerning economic growth and development, business cycles,  
unemployment, full employment, inflation, taxation, deficits, the national debt, and public choice.  
Survey of money, banking, interest rates, and international finance.  
Survey of competing economic views, including classical, Keynesian, post-Keynesian,  
modern, Marxist, institutional, and radical.  

4 Principles of Microeconomics (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Origins of the market institutions that form the basis of our national economy.  
How households decide what and how much to consume.  
Topics include: competition; monopoly and near-monopoly markets; price discrimination and regulation;  
microeconomic foundations of the economy; labor markets; pricing policies and practices;  
effects of taxes on individuals and businesses; income distribution and poverty,  
poverty reduction programs, environmental economics; economics of race, gender, and culture; trade policies;  
and benefits derived from international trade.  
May be offered as an Honors course.  

8 History of Economic Ideas (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Historical development of the institutions and ideas related to our present economic system emphasizing  
the writings of the “great economists”, including Smith, Ricardo, Marx, Marshall, Hayek, Robinson,  
Keynes, and Schumpeter.  
Students will critically examine a variety of schools of thought with the objective of improving their ability to think clearly and logically.  

90A Economics Honors Seminar (1)  
(CSU; UC credit limitations)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Students must be concurrently enrolled in one of the corequisite courses or  
have completed one of them with an A or B grade in the immediately preceding term, and must also meet  
Honors eligibility criteria delineated in the schedule of classes.  
Corequisite: Economics 1, 2, 4, or 8 (may have been taken previously)  

Honors component for Economics 1, 2, 4, and 8.  
Topics of interest vary, are chosen by the instructor and students,  
and are presented in a seminar format.  
May be taken four times with change in topic emphasis.  

492A-H Special Topics: Economics (.5-6)  
(CSU; UC credit limitations)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Selected special lecture topics in the field of education, designed to augment the program curriculum or serve  
as useful preparation for students within the discipline.  
Topics vary and are determined by the instructor.  
Prerequisites and/or corequisites may be required, based on the scope and content of individual offerings.  
See the schedule of classes for current term emphases.  
May be taken four times, for a maximum of 12 units, in any unit combination, however no single-topic, special interest class may be repeated.  

10 Introduction to Education and Teaching (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Limitation on Enrollment: Proof of a negative TB test within past 12 months and Chaffey College fingerprint clearance are required for fieldwork placement.  
Prerequisite: Eligibility for English 1A as determined by the Chaffey assessment process, or completion of  
English 450 or English as a Second Language 450.  
Introductory course exploring concepts and issues related to teaching diverse learners in today’s contemporary schools.  
Kindergarten through grade twelve (K-12).  
Topics include teaching as a profession and career, contemporary educational issues,  
California’s content and performance standards and frameworks,  
and requirements for earning a teaching credential.  
In addition to class time, the course requires 30-45 hours of structured fieldwork in a classroom that represents  
California’s diverse student population, and includes cooperation with a carefully selected campus-approved certificated classroom teacher.  

400 Exploring Careers in Education (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Eligibility for English 450 or English as a Second Language 450 as determined by the Chaffey assessment process, or completion of English 450 or  
English as a Second Language 450 as a Second Language 450.  
Exploration of career opportunities in an educational environment.  
Topics include: available educational careers; economic, education, and personality considerations in career choice;  
personal and student learning styles; multiculturalism; and uses of technology in the classroom.  

492A-H Special Topics: Education (.5-6)  
(Degree-applicable)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Selected special lecture topics in the field of education, designed to augment the program curriculum or serve  
as useful preparation for students within the discipline.  
Topics vary and are determined by the instructor.  
Prerequisites and/or corequisites may be required, based on the scope and content of individual offerings.  
See the schedule of classes for current term emphases.  
May be taken four times, for a maximum of 12 units, in any unit combination, however no single-topic, special interest class may be repeated.  

90A Economics Honors Seminar (1)  
(CSU; UC credit limitations)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Students must be concurrently enrolled in one of the corequisite courses or  
have completed one of them with an A or B grade in the immediately preceding term, and must also meet  
Honors eligibility criteria delineated in the schedule of classes.  
Corequisite: Economics 1, 2, 4, or 8 (may have been taken previously)  

Honors component for Economics 1, 2, 4, and 8.  
Topics of interest vary, are chosen by the instructor and students,  
and are presented in a seminar format.  
May be taken four times with change in topic emphasis.  

492A-H Special Topics: Economics (.5-6)  
(CSU; UC credit limitations)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
For those students desiring to explore in greater depth certain special areas in economics.  
A wide variety of topics, with the particular emphasis chosen by the instructor.  
See class schedule for emphasis.  
May be taken four times regardless of the unit combination.  

11 Introduction to Engineering (2)  
(CSU; UC)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Introduction to the engineering profession.  
Exploration of the educational requirements for engineers and engineering programs available at four-year schools.  
Students examine the various engineering fields, along with the design standards, creativity, and  
professional ethics unique to the profession.  
Guest speakers and industry exposure provide first-hand accounts of the profession’s scope and responsibilities.  

26 Engineering Graphics and CAD (3)  
(CSU; UC)  
Hours: 32-36 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Mathematics 430 or Drafting 21.  
Principles of orthographic projection, pictorial views,  
sections and auxiliary views, dimensioning, and the four fundamental views of description geometry.  
Emphasis on graphic communication used for manufacturing, construction, and product design for parts and assemblies.  
The use of CAD is incorporated to assist in the solving of industry-related problems.  

30 Engineering Application of Digital Computation (3)  
(CSU; UC)  
Hours: 32-36 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Mathematics 65A.  
Structured programming concepts applied to engineering problem types, such as center of mass, ballistics, column buckling, design, and reduction of experimental data. Structured approach used, with applications to flow charts and computer programming. Mathematical techniques include iterative solution, bisection, Raphson-Newton, statistics, and matrix operations. Computer techniques include formatted input and output, selection, loops, functions, pointers, arrays, and characters. 0901.00

492A-H Special Topics: Engineering (.5-6)  
(Degree-applicable)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Pursues certain specializations in engineering. See class schedule for the current topic. May be taken four times regardless of the unit combination. However, no single-interest, special-interest class may be repeated. 0901.00

ENGINEERING TECHNOLOGY  
(EGTECH)

10 Introduction to Engineering Design (4) (Cx)  
(formerly Engineering 412)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Mathematics 430.  
Survey of the design process as applied to engineering and related fields, with emphasis on 3-D computer modeling software used in industry. Additional topics include design sketching, visualization, geometric relationships, assembly modeling, and model documentation. 0924.00

12 Principles of Engineering (4) (Cx)  
(formerly Engineering 410)  
(CSU)  
Hours: 48-54 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Mathematics 425.  
Exploration of technology systems and engineering processes that demonstrate the benefits of math, science, and technology. Topics include the design process, communication and documentation, engineering systems, statics, properties of materials, quality assurance, materials testing, and engineering for reliability. 0924.00

ENGLISH (ENGL)

1A Composition (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Eligibility for English 1A as determined by the Chaffey assessment process, or completion of English 450 or English as a Second Language 450.  
Careful study and practice of expository and argumentative writing techniques and the frequent writing of compositions with the ultimate goal of a research project. A minimum of 6,000 written words is expected over the course of the term. Five arranged hours of supplemental learning in a Success Center that supports this course is required, plus tutoring or other activities as recommended by the instructor. Designed to prepare the student for satisfactory college writing. May be offered as an Honors course. 1501.00

1B Advanced Composition and Critical Thinking (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: English 1A.  
Using primarily non-fiction reading models, students emulate and incorporate various rhetorical strategies in the development of written analysis and researched argumentation. Focus on logical analysis and effective reasoning (e.g., inductive and deductive), establishing credibility, and emotional appeals to develop persuasive arguments. Course is writing intensive with a minimum production requirement of 6,000 words. May be offered as an Honor course. 1501.00

1C Introduction to Literature (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: English 1A.  
Foundation course in the study of literature introduces the central literary genres: novel, short story, poem, and play. Close reading of the literature guides inexperienced readers toward greater understanding and appreciation of imaginative literature, and provides more experienced readers with new perspectives through the analysis of the techniques and purposes of specific writers. Students are taught how to organize and compose the literary essay. May be offered as an Honors course. 1501.00

7A Creative Writing: Short Fiction (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Eligibility for English 1A as determined by the Chaffey assessment process, or completion of English 450 or English as a Second Language 450.  
Seminar in short fiction writing. Students study the underlying principles of this form of literature, write short stories, and analyze each other’s work. 1507.00

7B Creative Writing: Fiction (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Eligibility for English 1A as determined by the Chaffey assessment process, or completion of English 450 or English as a Second Language 450.  
Seminar in fiction writing. Students study the underlying principles of this form of literature, write short stories or several chapters of a novel, analyze and critique each other’s work; edit/revise/rewrite to ready for publication, and research potential markets for submission. 1507.00

7D Creative Writing: Poetry (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Eligibility for English 1A as determined by the Chaffey assessment process, or completion of English 450 or English as a Second Language 450.  
Writing seminar focusing on analysis of methods, forms, and meanings of poetry with emphasis on the elements of figurative language, sound, rhythm, and tone. Students develop critical standards for judging the worth of a poem, give their critical estimates of professional and student work, and write their own poetry. 1507.00

7E Creative Writing: Nonfiction (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: English 1A.  
Course in creative nonfiction writing. Review of the principles employed in writing creative nonfiction such as memoirs, personal essays, review, profiles, nature articles, and reportage. Students create essays, analyze and respond to student and professional writing, craft works intended for publication, and research potential markets for submission. 1507.00
30 Introduction to the Short Story (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of English 1A.  
Survey of the short story including a comprehensive selection of American, British, and translated short stories.  
1503.00  

32 Introduction to the Novel (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of English 1A.  
Survey of the novel, using selections drawn from multiple cultures and influences of the last three centuries, including translated novels of established merit. 1503.00  

33 Introduction to Poetry (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of English 1A.  
Survey of poetry written in English from the Middle Ages through the present day. Increases students' knowledge of poetry and its history and acquaints them with techniques of analysis. Special attention is given to poetic voice, syntax, figures of speech, sonnets, and, form. NOTE: English 33 is not a creative writing course for poetry. 1503.00  

35 Literary Magazine Production (4)  
(CSU)  
Hours: 48-54 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Eligibility for English 1A as determined by the Chaffey assessment process, or completion of English 450 or English as a Second Language 450.  
Advisory: Strong word processing skills.  
Concepts and practices of magazine production, including the design and maintenance of a web version. Acting as editors and assistants for The Chaffey Review, students master the fundamentals of editorial evaluation and selection, copyediting, proofreading, layout and design, production, promotion, and distribution. May be taken three times. 1507.00  

68 Mythology (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of English 1A.  
Major myths, especially in relation to the culture in which they arose, with a special emphasis on Greek mythology. Broad comparison of the myths of many cultures and their influence on subsequent literature. 1503.00  

70A World Literature (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: English 1A.  
Chronological survey of significant authors and texts of world literature from earliest times through the mid-1600’s. Extensive reading and discussion of works reflecting the diversity of thought in the world. Examination of the relationship between historical events and literary works, and the impact of works on their age and ensuing era. Strong writing component with emphasis on textual analysis. 1503.00  

70B World Literature (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: English 1A.  
Chronological survey of significant authors and texts of world literature from the mid-1600s through the twentieth century. Extensive reading and discussion of works reflecting diverse cultural viewpoints. Examination of the relationship between historical events and literary works, and the impact of works upon their age and ensuing era. Strong writing component with emphasis on textual analysis. 1503.00  

71 Folktlore (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: English 1A.  
Introduction to folklore and analysis of its various forms: myths, legends, fairy tales, fables, epics, and tall tales. Course consists of close reading of selected works and discussion of criteria for assessing the literary value of these stories and determining their significance as the primary source of themes, motifs, metaphors, and allusions that are encountered throughout literature. 1503.00  

74 Asian-American Literature (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Completion of English 1A.  
Introduction to Asian-American literature. Investigation of literary modes including drama, poetry, essays, short stories, and the novel. Identification and analysis of recurrent themes, gender portrayals, writing styles, and topics associated with Asian-American authors. Evaluation of the social, cultural, and political influence of Asian-American writers on the United States, as well as the impact of the dominant U.S. society in Asian-American writing during the twentieth century. 1503.00  

75A American Literature (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: English 1A.  
Chronological survey of significant authors and texts of American literature from the colonial period to the 1860s. Extensive reading and discussion of works reflecting the diversity of the United States. Examination of the relationship between historical events and literary works. Strong writing component with emphasis on textual analysis. 1503.00  

75B American Literature (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: English 1A.  
Chronological survey of significant authors and texts of American literature from the 1860s to the present. Extensive reading and discussion of works reflecting the diversity of the United States. Examination of the relationship between historical events and literary works. Strong writing component with emphasis on textual analysis. 1503.00  

79 Native American Literatures (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of English 1A.  
Chronological survey of major authors and texts of Native American literatures. Contributions of Native Americans to literature and how they use the various literary forms to express their worldviews and cultures. Relationship to Western culture, including cultural norms and the changing view of the Indians of yesteryear and today. 1503.00  

80A Survey of British Literature (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: English 1A.  
Chronological survey of major authors and texts of British literature from the Old English to the Neoclassic periods. Extensive reading and discussion of works. Examination of the relationship between historical events and literary works. Strong writing component with emphasis on textual analysis. 1503.00  

80B Survey of British Literature (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: English 1A.  
Advisory: Completion of English 80A.  
Chronological survey of major authors and texts of British literature from the Romantic period to the present. Extensive reading and discussion of works. Examination of the relationship between historical events and literary works. Strong writing component with emphasis on textual analysis. 1503.00  

81 Shakespeare (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of English 1A and 80A.  
Intensive reading, along with oral and written discussion, of a selected group of Shakespearean plays. 1503.00  

92A-H Special Topics: Literature (.5-6)  
(CSU; UC credit limitations)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Special interest class of varying length for students who seek further development in specific areas of literature and criticism. Wide variety of topics offered, with particular emphasis left up to the instructor. See class schedule for emphasis. May be taken four times, however, no single-subject, special interest class may be repeated. 1501.00  

98A, B, C Independent Study: Literature (1, 2, or 3)  
(CSU and UC credit limitations)  
Grading: Letter grade only.  
Limitation on Enrollment: Instructor signature is required for registration.  
Designed for the capable, well-motivated student. Each student explores and develops a literary project. Student-instructor agreement as to the nature and extent of the project must be reached before the student may enroll in the course. May be taken two times regardless of the unit combination. 1503.00
450 Fundamentals of Composition (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Prerequisite: Eligibility for English 450 as determined by the Chaffey assessment process, or completion of English 550 or Business and Office Technologies 455. Careful study and practice of expository writing techniques and the frequent writing of integrated paragraphs and essays, with the ultimate goal of writing an essay using sources. The student for English 1A. Five arranged hours of supplemental learning in a Success Center that supports this course is required, plus tutoring or other activities recommended by instructor. NOTE: Students who have successfully completed English as a Second Language 450 may not take English 450. 1501.00

452 Fundamentals of Composition Lab for ESL
Students - Level I (75)
(Degree-applicable)
Hours: 32-36 laboratory.
Grading: Pass/No Pass grade only.
Corequisite: English as a Second Language 450 with the same instructor.
Required laboratory providing additional scheduled hours of instructor assistance with English as a Second Language writing assignments. Focus is on practicing and reinforcing lecture material as well as self-editing and revision exercises. 4930.83

500 Preparation for College Writing (3)
(Non-degree-applicable)
Hours: 48-54 lecture.
Grading: Pass/No Pass grade only.
Prerequisite: Eligibility for English 500 as determined by the Chaffey assessment process. Introduces the entry-level writer to elements of the composing process (prewriting, drafting, revising, and editing). Focuses on composition development through writing, reading, and critical thinking. Includes strategies for improving study and college success. Five arranged hours of supplemental learning in a Success Center that supports this course is required, plus tutoring or other activities recommended by the instructor. 4930.21

550 Introduction to College Writing (3)
(Non-degree-applicable)
Hours: 48-54 lecture.
Grading: Pass/No Pass grade only.
Prerequisite: Eligibility for English 550 as determined by the Chaffey assessment process, or completion of English 500.
Prepare the inexperienced writer for college level academic writing by focusing on critical thinking, reading, writing, and study skills necessary to succeed at the academic level. Five hours of supplemental learning in a Success Center that supports this course is required, plus tutoring or other activities as recommended by the instructor. 4930.21

506 Computer-Based Multiple Skills English (3)
(Non-degree-applicable)
Hours: 48-54 lecture.
Grading: Pass/No Pass grade only.
Prerequisite: Placement recommendation into English as a Second Language 534, 536 or 538 or higher by the ESL assessment test, or satisfactory completion of English as a Second Language 641.
Prepares ESL students for employment, career ladders and academic success by improving language skills, practicing job-specific situations and expanding vocabulary. Topics include: career options, interview, cultural norms and work industry standards. Focus is on conversation practice, grammar, reading, writing, and problem solving. Ten hours of supplemental learning in a Success Center that supports this course is required. May be taken twice. 4931.00

534 Intermediate Oral Communication (3)
(Non-degree-applicable)
Hours: 48-54 lecture.
Grading: Pass/No Pass grade only.
Prerequisite: Placement recommendation by the ESL assessment test into ESL-544, 546, or 548 or higher level course by the ESL assessment test, or satisfactory completion English as a Second Language 641.
A multimedia-enriched computer course designed to improve reading, listening comprehension, speaking, and writing production. The course provides students with the basic computer literacy needed for success in English as a Second Language and English writing courses, or beginning Computer Information Systems courses. Designed for the non-native speaker of English. May be taken twice. 4930.80

548 High-Intermediate Writing and Grammar (3)
(Non-degree-applicable)
Hours: 48-54 lecture.
Grading: Pass/No Pass grade only.
Prerequisite: Placement recommendation by the ESL assessment test, or satisfactory completion of ESL-641. An intermediate level writing and grammar course. Focus is on improving written grammar and fluency. Skills emphasis: tenses, mechanics, sentence structures, transitions, and basic paragraph structure. Eight hours of supplemental learning in a Success Center that supports this course is required. May be taken twice. 4930.80

538 Intermediate Writing and Grammar (3)
(Non-degree-applicable)
Hours: 48-54 lecture.
Grading: Pass/No Pass grade only.
Prerequisite: Placement recommendation by the ESL assessment test, or satisfactory completion of ESL-641. An intermediate level reading course. Emphasis is on reading in class, vocabulary development, general comprehension, reading for details, fact versus opinion, and reading speed. May be taken twice. 4930.80

544 High-Intermediate Oral Communication (3)
(Non-degree-applicable)
Hours: 48-54 lecture.
Grading: Pass/No Pass grade only.
Prerequisite: Placement recommendation by the ESL assessment test, or satisfactory completion of ESL-534. A communicative approach to learning English. Conversation strategies, pronunciation work, and directed listening activities help build strong fluency and comprehension. Eight hours of supplemental learning in a Success Center that supports this course is required. May be taken twice. 4930.80

546 High-Intermediate Reading Skills (3)
(Non-degree-applicable)
Hours: 48-54 lecture.
Grading: Pass/No Pass grade only.
Prerequisite: Placement recommendation by the ESL assessment test, or satisfactory completion of ESL-536. A high-intermediate reading course. Emphasis is on independent reading, vocabulary enrichment and development, morphology, comprehension, reading for details, and critical thinking. May be taken twice. 4930.80

538 Intermediate Writing and Grammar (3)
(Non-degree-applicable)
Hours: 48-54 lecture.
Grading: Pass/No Pass grade only.
Prerequisite: Placement recommendation by the ESL assessment test, or satisfactory completion of ESL-538. A high-intermediate writing and grammar course. Focus moves the writer away from personal to academic writing. Emphasis: syntax, mechanics, usage, sentence types, paragraphs, purpose, and audience. Eight hours of supplemental learning in a Success Center that supports this course is required. May be taken twice. 4930.80

ENGLISH AS A SECOND LANGUAGE (ESL)

450 Fundamentals of Composition for ESL
Students (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Prerequisite: Placement recommendation by the ESL assessment test, or satisfactory completion of English as a Second Language 556 or 558.
Corequisite: English as a Second Language 452 with the same instructor.
Careful study and practice of expository writing techniques and the frequent writing of compositions, with the ultimate goal of writing the total essay. Prepare the student for English 1A and other degree-applicable coursework. NOTE: Students who have successfully completed English 450 may not take English as a Second Language 450. 4930.83
554 Advanced Oral Communication (3)  
(Non-degree-applicable)  
Hours: 48-54 lecture.  
Grading: Pass/No Pass grade only.  
Prerequisite: Placement recommendation by the ESL assessment test, or satisfactory completion of ESL-544.  
A communicative approach to advanced spoken English. Conversational tactics, presentation strategies, and debating skills help build strong fluency and comprehension of academic topics. Prepares students for degree-applicable courses. Eight hours of supplemental learning in a Success Center that supports this course is required. May be taken twice. 4930.81

556 Advanced Reading (3)  
(Non-degree-applicable)  
Hours: 48-54 lecture.  
Grading: Pass/No Pass grade only.  
Prerequisite: Placement recommendation by the ESL assessment test, or satisfactory completion of ESL-546.  
An advanced reading course. Focus: improve reading efficiency by expanding vocabulary, comprehension, critical thinking, and study skills. Students practice and develop whole language and critical thinking skills. Prepares students for degree-applicable courses. Eight hours of supplemental learning in a Success Center that supports this course is required. May be taken twice. 4930.81

558 Advanced Writing and Grammar (3)  
(Non-degree-applicable)  
Hours: 48-54 lecture.  
Grading: Pass/No Pass grade only.  
Prerequisite: Placement recommendation by the ESL assessment test, or satisfactory completion of ESL-548.  
An advanced writing course. Focus: paragraph development and expository writing, including basic essays. Skills emphasis: audience, purpose, point of view, advanced syntax, tone, and rhetorical modes. Prepares students for degree-applicable courses. Eight hours of supplemental learning in a Success Center that supports this course is required. May be taken twice. 4930.81

592A-H Special Topics Lecture: English as a Second Language (.5-6)  
(Non-degree-applicable)  
Hours: 16-18 lecture for each unit of credit.  
Grading: Pass/No Pass grade only.  
Prerequisite: Placement recommendation by the ESL assessment test or completion of ESL-640.  
Multi-level course (high-beginning to intermediate) in English as a Second Language that focuses on survival English skills and introduces the student to the structure of the American classroom. Emphasis is on vocabulary development, listening comprehension, pronunciation, oral practice, and basic reading and writing. This course - in conjunction with ESL-641 - prepares students for English as a Second Language credit courses. Ten hours of supplemental learning in a Success Center that supports this course is required. May be taken twice. 4930.82

592LA-H Special Topics Laboratory: English as a Second Language (.5-6)  
(Non-degree-applicable)  
Hours: 48-54 laboratory.  
Grading: Pass/No Pass grade only.  
Prerequisite: Placement recommendation by the ESL assessment test or satisfactory completion of ESL-546.  
An advanced writing course. Focus: writing development and expository writing, including basic essays. Skills emphasis: audience, purpose, point of view, advanced syntax, tone, and rhetorical modes. Prepares students for degree-applicable courses. Eight hours of supplemental learning in a Success Center that supports this course is required. May be taken twice. 4930.82

640 Literacy-Level English (0)  
(Non-credit)  
Hours: 48-54 lecture.  
Grading: Pass/No Pass grade only.  
Prerequisite: Placement recommendation by the Chaffey ESL assessment test.  
Beginning course in English as a Second Language that focuses on survival English skills and introduces the student to the structure of the American classroom. Emphasis is on basic vocabulary and deducing meaning from the written and spoken word. This course - in conjunction with ESL-641 - prepares students for English as a Second Language credit courses. Ten hours of supplemental learning in a Success Center that supports this course is required. May be taken twice. 4930.82

641 Everyday English (0)  
(Non-credit)  
Hours: 48-54 lecture.  
Grading: Pass/No Pass grade only.  
Advisory: Placement recommendation by the Chaffey ESL assessment test, or completion of English as a Second Language 640.  
Multilevel course (high-beginning to intermediate) in English as a Second Language that focuses on the use of English language skills in everyday contexts. Emphasis on vocabulary development, listening comprehension, pronunciation, oral practice, and basic reading and writing. This course - in conjunction with ESL-640 - prepares students for English as a Second Language credit courses. Ten hours of supplemental learning in a Success Center that supports this course is required. May be taken twice. 4930.82

558 Advanced Writing and Grammar (3)  
(Non-degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Placement recommendation by the ESL assessment test, or satisfactory completion of ESL-641.  
Twelve hours of supplemental learning in a Success Center that supports this course is required. May be taken twice. 4930.82

FASHION DESIGN (FASHD)

16 Principles of Costume Design and Production (3)  
(Also available as Theatre Arts 16)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Fashion Design 40.  
Three dimensional draping in muslin and translation of the drape to a hard pattern. 1303.10

415 Textile Surface Design (2)  
(Degree-applicable)  
Degree-Applicable  
Hours: 16-18 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Embellishment, enhancement, and alterations of existing textile surfaces for incorporation into the design and construction of ready-to-wear apparel and accessories. 1303.10

421 Cultures and World Fashion (3)  
(Degree-applicable)  
Degree-Applicable  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
World survey of ethnic clothing as it relates to the social, political, economic, and religious contexts of use in its country of origin. Contemporary applications of ethnic dress as a design source in today’s fashion apparel. 1303.10
428 Computer-Aided Fashion and Costume Design (2)
(Degree-applicable)
Hours: 16-18 lecture; 48-54 laboratory.
Grading: Letter grade only.
Advisory: Basic computer skills are recommended.
Introductory course using computer-assisted fashion design software to create flat sketches, colorize designs, assemble story boards, design textiles, and compute cost and specification sheets. Adobe Illustrator is the primary software vehicle for these processes, with ancillary CAD programs including Snup-Fashun. Scanning techniques and the effective use of program features to create and alter shapes, manipulate text, and create cost estimates are emphasized. May be taken twice. 1303.10

441 Intermediate Clothing Construction (2)
(Degree-applicable)
Hours: 16-18 lecture; 48-54 laboratory.
Grading: Letter grade only.
Prerequisite: Fashion Design 40.
Intermediate apparel construction using more difficult fabrics. Emphasis on bridge and designer quality garment techniques. May be taken twice. 1303.10

442 Industrial Sewing (2)
(Degree-applicable)
Hours: 16-18 lecture; 48-54 laboratory.
Grading: Letter grade only.
Corequisite: Fashion Design 40 (may be taken previously).
Industrial construction techniques and assembly of apparel utilizing industrial sewing machines. May be taken twice. 1303.10

445 Fitting and Alterations of Patterns and Apparel (2)
(Degree-applicable)
Hours: 16-18 lecture; 48-54 laboratory.
Grading: Letter grade only.
Prerequisite: Fashion Design 40.
Analysis of personal figure variations and application of pattern adjustments for customized dimensions and proper fit. Topics include: determining feasibility of garment modification, ready-to-wear alterations, incorporating proper fit into new garment construction, and industry tips for the correct fitting of pants. Employment opportunities in fashion related fields discussed, including pricing, skills and equipment requirements, and client management issues affecting small businesses in the alterations field. Students may have the opportunity to visit an apparel alterations facility. 1303.30

470 Apparel Production (3)
(Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Prerequisite: Fashion Merchandising 10.
Advisory: Completion of Fashion Design 40 and 60.
The design, development, pricing, sourcing, sample making, manufacturing, and marketing of a line of clothing. 1303.30

471 Advanced Patternmaking (3)
(Degree-applicable)
Hours: 32-35 lecture; 48-54 laboratory.
Grading: Letter grade only.
Prerequisite: Fashion Design 61.
Theory and practice in developing flat patterns for tailored garments, suits, linings, and knitwear. Research of design details in more complicated garments and interpretation of this detail into full-scale patterns. Patterns are cut and corrected first in muslin, then in designer fabric, with the final pattern being 100% correct for entering into production. 1303.30

472 Computer-Aided Patternmaking (2)
(Degree-applicable)
Hours: 16-18 lecture; 48-54 laboratory.
Grading: Letter grade only.
Prerequisite: Fashion Design 61.
Advisory: Basic computer skills are recommended.
Beginning study of computer applications in pattern-making, including terminology and operation of the software programs. Topics include master pattern creation, flat-pattern manipulation, pattern grading sizing, pattern file storage, and reports to apparel contractors and managers. Use of pattern technologies current to the industry to produce preproduction and production documents. May be taken twice. 1303.30

480 Design Collection (2)
(Degree-applicable)
Hours: 16-18 lecture; 48-54 laboratory.
Grading: Letter grade only.
Prerequisite: Fashion Design 42 and 61.
Preparation of a collection of garments for use in a runway show. Students must sketch, design, draft or drape pattern, select designer fabrics, and construct garments in collection. 1303.30

482 Industry Internship: Fashion Design (1)
(Degree-applicable)
Limitation on Enrollment: Consent of instructor is required prior to registration.
Prerequisite: Fashion Design 42 (may be taken previously).
Industry internship in cooperation with area private and public sector employers providing new or expanded learning opportunities directly related to fashion design and production and readying the student for employment. 1303.00

492A-H Special Topics: Fashion Design (1.5-6)
(Degree-applicable)
Limitation on Enrollment: Consent of instructor is required prior to registration.
Prerequisite: Fashion Design 42 (may be taken previously).
Pursues specializations in Fashion Design. See class schedule for the current topics. May be taken four times regardless of the unit combination, however, no single-subject, special-interest class may be repeated. 1303.10

498A, B, C Independent Study: Fashion Design (1, 2, or 3)
(Degree-applicable)
Limitation on Enrollment: Consent of instructor is required prior to registration.
Prerequisite: Fashion Design 61.
Independent study in fashion design, through research and documentation or applications in design and production. Independent work and study will be supervised by appointed instructor. May be taken three times, regardless of the unit value. 1303.00

FASHION MERCHANDISING (FASHM)

10 Introduction to the Fashion Industry (3)
(CSU: UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Basic study of the fashion design and merchandising industry including leading designers and geographical centers, distribution, textile and apparel production, fashion cycles, retail outlets, merchandising techniques, and employment opportunities. 1303.20

11 Retail Merchandising and Management (3)
(Available also as Business: Management 11)
(CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Role of retailing in serving the needs of the community. Analysis of consumer needs, store location, financial requirements, and legal process of starting a retail operation. Planning for store layout, merchandise mix, vendor negotiation, pricing, displaying, advertising, selling, and controlling of merchandise. 1303.20

12 Visual Merchandising (3)
(CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Store design and space planning to maximize fashion sales. Visual display of store windows and vignettes using proper techniques and art principles. 1303.20

15 Image and Fashion Selection (3)
(CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Clothing choices for the professional workplace and California lifestyles. Analysis of body composition and proportions, individual coloring, and personality in the selection of a trendy, sophisticated, comfortable, and budget-appropriate wardrobe. 1303.20

69 Textiles (3) (Cx)
(CSU: UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Study of the textile fibers, yarns, weaves, and finishes which give the consumer and designer a background for intelligent selection, use, and care of modern fabrics. Special emphasis on man-made fibers, their manufacture, properties, and use. 1303.20

482 Industry Internship: Fashion Merchandising (1)
(Degree-applicable)
Hours: 60 hours/term (unpaid) or 75 hours/term (paid) on-site work experience.
Grading: Letter grade only.
Limitation on Enrollment: Consent of instructor is required prior to registration.
Prerequisite: Fashion Merchandising 11.
Industry internship in cooperation with an area private and public sector employer providing new or expanded learning opportunities directly related to fashion design merchandising and readying the student for employment. 1303.20
492A-H Special Topics: Fashion Merchandising (1–6) (Degree-applicable) Hours: 16–18 hours/term lecture for each unit of credit. Grading: Letter grade only. Specializations in Fashion Merchandising. See class schedule for the current topic. May be taken four times regardless of the unit combination. However, no art single-subject, special-interest class may be repeated.

1303.20

499A, B, C Independent Study: Fashion Merchandising (1, 2, or 3) (Degree-applicable) Grading: Letter grade only. Limitation on Enrollment: Instructor signature is required for registration. Specialized study in fashion merchandising, through research and documentation or applications in design and production. Independent work and study will be supervised by appointed instructor. May be taken three times, regardless of the unit value.

1303.20

**FIRE TECHNOLOGY (FIRETEC)**

1 Fire Protection and Organization (3) [CX] (CSU) Hours: 48-54 lecture. Grading: Letter grade only. Overview of fire protection and emergency services, including the philosophy, history, evolution, organizational structure, and functions of public and private fire protection services. Topics include: fire departments as a part of local government; applicable laws and regulations; scientific terminology; specific protection functions; loss analysis; basic fire chemistry and physics; an introduction to fire protection systems, strategies, and tactics; and career opportunities in fire protection and related fields.

3 Fire Protection Systems (3) (CSU) Hours: 48-54 lecture. Grading: Letter grade only. Design 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.

2133.00

4 Building Construction for Fire Protection (3) (CSU) Hours: 48-54 lecture. Grading: Letter grade only. Components of building construction relating to fire safety. Effects of construction and structural design as key factors in building inspection, fire operations pre-planning, and fire site operations. Evolution of building and fire codes, developed in response to historical fires, in residential, commercial, and industrial occupancies.

2133.00


2133.00

6 Fire Apparatus and Equipment (3) (CSU) Hours: 48-54 lecture. Grading: Letter grade only. Introduction to the mechanized equipment operated by fire service personnel and the regulations pertaining to its use. Topics include: driving laws and techniques, construction and operation of pumping engines, ladder trucks, aerial platforms, specialized equipment, and apparatus maintenance.

2133.00

7 Strategies and Tactics (3) (CSU) Hours: 48-54 lecture. Grading: Letter grade only. Principles of fire control, through utilization of manpower, equipment, extinguishing agents, and fire command and control procedures. Use of information on building construction types in fire control. Pre-fire planning and the organized approach to decision making on the fire ground.

2133.00

8 Fire Ground Hydraulics (3) (CSU) Hours: 48-54 lecture. Grading: Letter grade only. Principles of hydraulics, hydraulic measurements, engine and hose appliance calculations, discharge and velocity flow calculations, and engine and nozzle pressure determination in field situations.

2133.00

402 Basic Incident Command Systems — ICS-200 (1) (Degree-applicable) Hours: 16-18 lecture. Grading: Letter grade only. Provides a working knowledge of the Incident Command System (ICS) function, organization, features, facilities, resources, and responsibilities.

2133.50

403 Intermediate Incident Command Systems — ICS-300 (1.5) (Degree-applicable) Hours: 24-27 lecture. Grading: Letter grade only. Prerequisite: Fire Technology 402. Provides current and potential public safety managers/supervisors with the knowledge necessary to perform in a management/supervisory capacity at an incident or event being managed within the organizational guidelines, defined terminology, and common responsibilities and roles of the Incident Command System.

2133.50

405 Hazardous Materials First Responder Operations (1) (Degree-applicable) Hours: 16-18 lecture. Grading: Letter grade only. Provides current and potential public safety workers, who are likely first responders, with improved capability to respond to events involving hazardous materials in a safe and competent manner, within the typical resource and capability limitations at the operational level. Meets OSHA requirements under Title 8 CCR 5192 and 29 CFT 1910.120.

2133.50

410 Fire Command 1A (2) (Degree-applicable) Hours: 40 lecture. Grading: Letter grade only. Advisory: Course is advanced education for fire professionals preparing for promotion to company officer. Provides fire company officers with information and experience in command and control techniques used at the scene of an emergency. Emphasized topics include organizational structure, authority, command, pre-planning, decision-making, personnel issues, and training techniques.

2133.50

411 Fire Command 1B (2) (Degree-applicable) Hours: 40 lecture. Grading: Letter grade only. Advisory: Course is advanced education for fire professionals preparing for promotion to company officer. Provides fire company officers with information and experience in hazardous materials incident management skills. Emphasizes utilization of command principles, identification, assessment, special techniques, and emergency planning.

2133.50

412 Fire Command 1C (2) (Degree-applicable) Hours: 40 lecture. Grading: Letter grade only. Advisory: Course is advanced education for fire professionals preparing for promotion to company officer. Responsibilities of the fire company officer at a wildland/urban interface incident.

2133.50

**FINE ARTS (FINART)**

50 Introduction to Fine Arts (3) (CSU: UC) Hours: 48-54 lecture. Grading: Letter grade only. Introduction to the development of drama, music, the visual arts, and film, including war and the arts, religion and the arts, television, dance, and/or principles of art criticism.

1001.00

90A Fine Arts Honors Seminar (1) (CSU: UC credit limitations) Hours: 16-18 lecture. Grading: Letter grade only. Honors component for Fine Arts. Topics of interest are chosen by the instructor and students, and are presented in a seminar format. Prerequisites and/or corequisites are required. May be taken four times with change in topic emphasis.

1001.00
417 Fire Management I (2)  
(Degree-applicable)  
Hours: 40 lecture.  
Grading: Letter grade only.  
Advisory: Course assumes familiarity with firefighting procedures and protocols, as it is designed for certified fire personnel. Non-firefighters are permitted to take the course, however they are ineligible to apply for the State Fire Marshall CFIES certificate upon successful completion of the course.  
Develops/enhances the first line supervisor’s ability to supervise subordinates. Introduces key management concepts and practices utilized in the California Fire Service, and includes discussions about decision-making, time management, leadership styles, personal evaluations, and counseling guidelines.  
2133.00

420 Fire Prevention Practices (2)  
(Degree-applicable)  
Hours: 40 lecture.  
Grading: Letter grade only.  
Advisory: Course assumes familiarity with firefighting procedures and protocols, as it is designed for certified fire personnel. Non-firefighters are permitted to take the course, however they are ineligible to apply for the State Fire Marshall CFIES certificate upon successful completion of the course.  
Provides fundamental information regarding the responsibility and authority for fire inspections, principles and procedures used to correct fire hazards, and occupancy classifications.  
2133.00

421 Fire Prevention Practices – Code Enforcement (2)  
(Degree-applicable)  
Hours: 40 lecture.  
Grading: Letter grade only.  
Advisory: Course is advanced education for fire professionals preparing for promotion to company officer.  
Focus on the codes, ordinances, and statutes pertaining to fire prevention practices in California.  
2133.00

422 Fire Prevention Practices – Flammable Liquids and Gases (2)  
(Degree-applicable)  
Hours: 40 lecture.  
Grading: Letter grade only.  
Advisory: Course is advanced education for fire professionals preparing for promotion to company officer.  
Special hazards associated with flammable and combustible liquids and gases. Topics of discussion include: bulk storage and handling, transportation of flammable liquids and gases, and more.  
2133.00

FRENCH (FR)  

1 Elementary French (4)  
(CSU; UC)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Prerequisite: French 1 or one year of high school French.  
A systematic presentation of language patterns and of the underlying cultural ideas that lead to facility in the four basic skills: aural, oral, reading, and writing. Reading selections introduce various aspects of the life and culture of the French-speaking peoples. Films and an audiovisual program containing cultural presentations and further practice in comprehension supplement the textbook. Fourteen hours of supplemental learning in a Success Center that supports this course is required. This course corresponds to the first year of high school French.  
1102.00

2 Elementary French (4)  
(CSU; UC)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Prerequisite: French 1 or one year of high school French.  
Continued systematic presentation of language patterns and of the underlying cultural ideas that lead to facility in the four basic skills: aural, oral, reading, and writing. Reading selections introduce various aspects of the life and culture of the French-speaking peoples. Films and an audiovisual program containing cultural presentations and further practice in comprehension supplement the textbook. Fourteen hours of supplemental learning in a Success Center that supports this course is required.  
1102.00

3 Intermediate French (4)  
(CSU; UC)  
Grading: Letter grade only.  
Prerequisite: French 2 or two years of high school French.  
Reviews basic grammar and presents more elaborate constructions as a preparation for advanced reading and writing. Affords opportunity for speaking and writing French on an increasingly advanced level. Includes reading, discussing, and writing about selections from French literature of increasing difficulty. Fourteen hours of supplemental learning in a Success Center that supports this course is required.  
1102.00

4 Intermediate French (4)  
(CSU; UC)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Prerequisite: French 3.  
Focuses on complex constructions and syntax. Opportunity for speaking and writing French on an advanced level. Includes reading, discussing, and writing about sophisticated selections from French literature. Fourteen hours of supplemental learning in a Success Center that supports this course is required.  
1102.00

5 French Conversation (2)  
(CSU)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Prerequisite: French 1 or one year of high school French.  
Practice in listening to and speaking French, with emphasis on everyday speech patterns. Subjects for extemporaneous conversation stress practical situations and cultural background. May be taken twice.  
1102.00

GEORGIC INFORMATION SYSTEMS (GIS)  

1 Introduction to Geographic Information Systems (4)  
(CSU; UC credit limitations)  
Hours: 48-54 lecture; 48-54 laboratory  
Grading: Letter grade only.  
Advisory: Completion of Computer Information Systems 4.  
Interdisciplinary course to explore the fundamentals and introduce the Geographic Information System (GIS) used for management, analysis, and communication of spatial data. Includes a brief introduction to basic cartographic principles, including maps, scales, coordinate systems, and map projections. Various applications of GIS technology used in environmental science, business, and government. Specific topics include GIS terminology, working with spatial data, and spatial analysis. Laboratory work reinforces lecture topics with hands-on experience using the ArcView software. May be taken twice.  
NOTE: Students who have completed GIS-1A and GIS-1B twice may not take GIS-1.  
2206.10

1A Introduction to Geographic Information Systems (2)  
(CSU; UC credit limitations)  
Hours: 24-27 lecture; 24-27 laboratory  
Grading: Letter grade only.  
Advisory: Completion of Computer Information Systems 4.  
Equivalent to the first half of GIS-1. Interdisciplinary course to explore the fundamentals and introduce the Geographic Information System (GIS) used for management, analysis, and communication of spatial data. Includes a brief introduction to basic cartographic principles, including maps, scales, coordinate systems, and map projections. Various applications of GIS technology used in environmental science, business, and government. Specific topics include GIS terminology, working with spatial data, and spatial analysis. Laboratory work reinforces lecture topics with hands-on experience using the ArcView software. May be taken twice.  
NOTE: Students who have completed GIS-1A twice may not take GIS-1A.  
2206.10

FOOD SERVICE  
(SEE HOTEL AND FOOD SERVICE, AND NUTRITION AND FOOD)  

92A-H Special Topics: French Literature, Language and Culture (1-6)  
(CSU; UC credit limitations)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Special interest class of varying length for students who seek further development in specific areas of literature and extended knowledge of the language and culture. Variety of topics offered with particular emphasis determined by the instructor. May be taken for a maximum of nine units; however, no single-subject, special-interest class may be repeated.  
1102.00
18 Introduction to Geographic Information Systems (1) (see also Earth Science)

Hours: 24-27 lecture, 24-27 laboratory
Grading: Letter grade only.
Prerequisite: Geographic Information Systems 1A.
Equivalent to the second half of GIS-1. Interdisciplinary course to explore the fundamentals and introduce the Geographic Information System (GIS) used for management, analysis, and communication of spatial data. Includes a brief introduction to basic cartographic principles, including maps, scales, coordinate systems, and map projections. Various applications of GIS technology used in environmental science, business, and government. Specific topics include GIS terminology, working with spatial data, and spatial analysis. Laboratory work reinforces lecture topics with hands-on experience using the ArcView software. May be taken twice.

NOTE: Students who have completed GIS-1 twice may not take GIS-1B.

2 Intermediate Geographic Information Systems (3) (CSU)

Hours: 32-36 lecture; 48-54 laboratory
Grading: Letter grade only.
Prerequisite: Geographic Information Systems 1, 1A, and 1B.
Intermediate level course providing further study in ArcView, and an introduction to using its discipline-specific applications in a GIS. Mapping and spatial analysis capabilities of ArcView and other GIS software. Introduction to GPS (Global Positioning Systems), including terminology, technology, data structures, use of metadata, and hands-on training using GPS remote sensing hardware and software. Use of GIS and geostatistical methods to establish criteria for multi-disciplinary applications analysis. May be taken three times.

4 Introduction to ArcView for Geographic Information Systems (1)

(Degree-applicable)

Hours: 16-18 lecture.
Grading: Letter grade only.
Advisory: Completion of Computer Information Systems 4.
Introduction to Geographic Information Systems (GIS) using ArcView. Conceptual overview and basic functions. Use of ArcView GIS software and the Geographical User Interface to create, edit, query, and display geophysical and tabular data. Course developed and taught by ESRI-certified Introduction to ArcView instructor. May be taken twice.

3 Geography of California (3) (CSU; UC)

Hours: 48-54 lecture.
Grading: Letter grade only.
A regional survey of California’s natural and human resources, focusing on the influence of physical features, climate, water, and biogeography and their interactions with human population, migration, settlement, industries, economics, urban development, and social and cultural diversity. Examination of current issues and future challenges.

4 Physical Geography (3) (CSU; UC)

Hours: 48-54 lecture.
Grading: Letter grade only.
The global physical world, its dynamics and spatial relationships. Physical environment presented as an integration of the atmosphere, hydrosphere, lithosphere, and the biosphere. Processes and spatial relationships that created the global mosaic. Broad based course with an interdisciplinary outlook.

5 Physical Geography Laboratory (1) (CSU; UC)

Hours: 48-54 laboratory.
Grading: Letter grade only.
Corequisite: Geography 4 (may be taken previously).
Field observation and analysis of physical environments to accompany Geography 4. Laboratory is held in the field for on-site interpretation of climate, soils, landforms, plant, and animal distribution.

6 Environmental Geography (3)

(CSU; UC)

Hours: 48-54 lecture.
Grading: Letter grade only.
Global perspectives on environmental geography. Geographical approach to the biosphere: environmental principles, economics and environment, human impact, extinction and biodiversity, food/population crises, the social environment, global warming and contemporary values in global environmental issues.

10 Cultural Geography of North America (3)

(CSU; UC)

Hours: 48-54 lecture.
Grading: Letter grade only.

11 World Cultures (3)

(CSU; UC)

Hours: 48-54 lecture.
Grading: Letter grade only.
Geographic aspects of world cultures in relationship to land and sea. Dynamics of different societies and their impact on the natural world is traced through development, growth, settlement patterns, economic development, agricultural practices, commercial exploitation, demographies and political evolution through changing attitudes.

98A, B, C Independent Study: Physical/Cultural Geography (1, 2, or 3)

(CSU and UC credit limitations)

Grading: Letter grade only.
Limitation on Enrollment: Instructor signature is required for registration.
For the student who is capable and has the desire to explore and develop a problem in physical geography. Before registering, the student must sign an agreement with the instructor concerning subject and intended limits of the project. Individual inquiry, special techniques, and selected reading.

98A Independent Study: Physical Geography (1)

(CSU; UC)

Hours: 48-54 lecture.
Grading: Letter grade only.
Study of the earth, composition, structure, distribution, and modification of earth materials and processes that shape the surface. Laboratory activities include experiments testing sediment porosity and permeability, seismic stick/slip theory, alluvial fan development, and other geologic principles.

1914.00

2 Historical Geology (4)

(CSU; UC)

Hours: 48-54 lecture; 48-54 laboratory.
Grading: Letter grade only.
Prerequisite: Geology 1.
History of the earth and its life forms. Changes in tectonic plates and life forms through time and study of fossils. Eight-hour field trip required in addition to normal class meetings.

6 Geology of National Parks and Monuments (3)

(CSU)

Hours: 48-54 lecture.
Grading: Letter grade only.
Geology and history of selected national parks and monuments throughout the United States with emphasis on the geological processes which formed them. Eight-hour field trip required in addition to normal class meetings.

10 Environmental Geology (3)

(CSU; UC)

Hours: 48-54 lecture.
Grading: Letter grade only.
Application of geological principles to understanding environmental hazards and resources. Emphasis on human interaction with active processes. Eight-hour field trip required outside of normal class meetings.

20 Introduction to Paleontology (4)

(CSU; UC)

Hours: 48-54 lecture, 48-54 laboratory.
Grading: Letter grade only.
Advisory: Completion of Geology 2 and Biology 10.
Morphology and evolution of fossil organisms. Includes interpretation of fossil record and environments. Eight-hour field trip required in addition to normal class meetings.
30  Geology of California (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Physical and historical geology of California, including the development of the twelve geomorphic divisions.  
Eight-hour field trip required in addition to normal class meetings.  
1914.00  

30T  Geology of California Field Trip (1.5)  
(CSU; UC)  
Hours: 72-81 laboratory.  
Grading: Letter grade only.  
Corequisite: Geology 30 (may be taken previously).  
Field investigation of California, with emphasis on areas north and west of the Mojave Desert. Instruction during camping trip. May be taken twice.  
1914.00  

70  California Field Trip (2)  
(CSU; UC credit limitations)  
Hours: 16-18 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Corequisite: Any geology course or Earth Science 1 (may be taken previously).  
Geologic investigation of an area within California.  
Camping trip of varying length (approximately 1 week). May be taken four times as trip sites change.  
1914.00  

75A, B  Out-of-State Field Trip (2, 3)  
(CSU; UC credit limitations)  
Hours: 16-18 lecture; 48-54 or 96-108 hours field trip.  
Grading: Letter grade only.  
Corequisite: Any geology course or Earth Science 1 (may be taken previously).  
Geologic investigation of an area or related areas with all or a portion located outside of California.  
A camping trip either 1 week (for the 2-unit course) or two weeks (for the 3-unit course) follows the lecture portion of the course.  
Students apply concepts and vocabulary to the geology of the visited region, and document their field observations.  
Hiking safety, group responsibilities, and cultural sites of interest are included. May be four times with change in trip sites.  
1914.00  

80  Mineralogy I (4)  
(CSU; UC)  
Hours: 32-36 lecture; 96-108 laboratory.  
Grading: Letter grade only.  
Prerequisite: Geology 1.  
Advisory: Completion of Chemistry 10 or high school chemistry, and Mathematics 430 or high school geometry.  
Crystallography and physical, chemical, and descriptive mineralogy. Mineral assemblages and genesis emphasized. Forty-eight hours of field trip required in addition to normal class meetings.  
1914.00  

85  Petrology I (5)  
(CSU; UC)  
Hours: 56-63 lecture; 72-81 laboratory.  
Grading: Letter grade only.  
Prerequisite: Geology 1.  
Advisory: Completion of Chemistry 10 or high school chemistry.  
Hand-specimen petrology: igneous, metamorphic and sedimentary. Forty-eight hours of field trip required in addition to normal class meetings.  
1914.00  

90A  Geology Honors Seminar (1)  
(CSU; UC credit limitations)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Honors component for Geology. Topics of interest are chosen by the instructor and students, and are presented in a seminar format. Prerequisites and/or corequisites are required. May be taken four times with change in topic emphasis.  
1914.00  

92A-H  Special Topics: Geology (.5-6)  
(CSU; UC credit limitations)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Current topics, geological occurrences of geological interest or geological specialization. Field trip may be required. May be taken four times.  
1914.00  

92A-B, C  Independent Study: Geology (1, 2, or 3)  
(CSU and UC credit limitations)  
Grading: Letter grade only.  
Limitation on Enrollment: Instructor signature is required for registration.  
Prerequisite: Geology 1.  
Individual study course for capable students who are interested in furthering their knowledge of geology.  
Student-instructor agreement as to the nature and extent of the project must be reached before the student may enroll in the course. May be taken four times.  
1914.00  

1  Elementary German (4)  
(CSU; UC)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
A systematic presentation of language patterns and guided listening, speaking, and writing activities facilitate competence in basic communication skills, and convey various cultural aspects of German-speaking countries.  
Fourteen hours of supplemental learning in a Success Center that supports this course is required. This course corresponds to the first year of high school German.  
1103.00  

2  Elementary German (4)  
(CSU; UC)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Prerequisite: German 1 or one year of high school German.  
Continued systematic presentation of language patterns and guided listening, speaking, and writing activities that lead to greater competence in basic communication skills and convey further cultural aspects of German-speaking countries.  
Fourteen hours of supplemental learning in a Success Center that supports this course is required.  
1103.00  

404  Health and Wellness for Older Adults (3)  
(Also available as Health Science 404)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Understanding healthy aging as well as chronic conditions of later life. Health behaviors and lifestyle factors that contribute to good health in later life. Wellness practices that contribute to disease prevention.  
1309.00  

8  Sociology of Aging (3)  
(Also available also as Sociology 18)  
(CSU; UC credit limitations)  
Grading: Letter grade only.  
Social, cultural, and policy issues for an aging society.  
Diversity in the experience of aging: cultural, economic, gender, and ethnic differences. Age and aging as social constructs. Life-long age status and role expectations. Society’s response to an increasingly aged population. May be offered as an Honors course.  
1309.00
405 Resources and Services for Older Adults (2)  
(Degree-applicable)  
Hours: 16-18 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Provides students with skills needed to access community resources and services for older adults. An introduction to resources, services, eligibility requirements, and funding. An overview of strategies to locate resources through direct contact as well as Internet research. Students acquire a basic understanding of applications pertinent to gerontological service settings, and learn to locate resources on the Internet.  
1309.00

406 Gerontology Career Practicum (1)  
(Degree-applicable)  
Hours: 60 hours/term unpaid on-site work experience.  
Grading: Letter grade only.  
Corequisite: Gerontology 11 (may be taken previously)  
Supervised work experience in public or private agencies, facilities, or organizations. Designed to apply gerontological knowledge, learn new skills, and provide career-related work experience in community situations. Placement is arranged through the instructor. May be taken four times.  
1309.00

422A Dementia Care: Understanding Dementing Illnesses (1)  
(Degree-applicable)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Corequisite: Gerontology 11  
Supervised work experience in public or private agencies, facilities, or organizations. Designed to apply gerontological knowledge, learn new skills, and provide career-related work experience in community situations. Placement is arranged through the instructor. May be taken four times.  
1309.00

422B Dementia Care: Understanding Difficult Behaviors (1)  
(Degree-applicable)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Corequisite: Gerontology 11  
Supervised work experience in public or private agencies, facilities, or organizations. Designed to apply gerontological knowledge, learn new skills, and provide career-related work experience in community situations. Placement is arranged through the instructor. May be taken four times.  
1309.00

422C Dementia Care: Planning Meaningful Activities (1)  
(Degree-applicable)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Corequisite: Gerontology 11  
Supervised work experience in public or private agencies, facilities, or organizations. Designed to apply gerontological knowledge, learn new skills, and provide career-related work experience in community situations. Placement is arranged through the instructor. May be taken four times.  
1309.00

462 Activity Coordinator Training (4)  
(Degree-applicable)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
State-certified training for those working as an activity director in a skilled nursing facility. Practice in documentation and familiarization with Title 22 requirements, OBRA regulations, job description, basic medical terminology, and skills necessary for an activity director. Organizing, implementing and evaluating activities programs. Geriatric drugs, psycho-social needs, and other aging issues. Producing activity calendars, maximizing patient interests and participation. Therapeutic and bedside activities. Styles of leadership, and an overview of the functions of the interdisciplinary team.  
1309.00

483 Social Work Designee Training (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Corequisite: Concurrent enrollment in any Chaffey Gerontology course  
Supervised work experience in public and private agencies, facilities, and organizations. Designed to apply gerontological knowledge, learn new skills, and provide career-related work experience in community situations. Placement is arranged through the instructor. May be taken four times.  
1309.00

482 Internships in Gerontology (1)  
(Degree-applicable)  
Hours: 60 hours/term unpaid on-site work experience.  
Grading: Letter grade only.  
Corequisite: Gerontology 11  
Supervised work experience in public and private agencies, facilities, or organizations. Designed to apply gerontological knowledge, learn new skills, and provide career-related work experience in community situations. Placement is arranged through the instructor. May be taken four times.  
1309.00

492A-H Special Topics: Gerontology (.5-6)  
(Degree-applicable)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Corequisite: Concurrent enrollment in any Chaffey Gerontology course  
Supervised work experience in public and private agencies, facilities, and organizations. Designed to apply gerontological knowledge, learn new skills, and provide career-related work experience in community situations. Placement is arranged through the instructor. May be taken four times.  
1309.00

503 Orientation to College (2)  
(Non-degree-applicable)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Corequisite: Guidance 511  
Designed for returning and continuing students to address the academic and personal challenges of college success. Various assessment tools are employed to identify and evaluate student preparation and attitude for a successful college experience. Positive growth and self-motivation strategies and topics are explored, with a special focus on developing realistic educational and life goals. Students address previous-employment learning skills and methods to evaluate their effectiveness. New and improved methods of study, time management, and the utilization of college support systems are mastered. Five hours of supplemental learning in a Success Center that supports this course are required.  
4930.10

504 Educational Planning (.5)  
(Non-degree-applicable)  
Hours: 8-9 lecture.  
Grading: Letter grade only.  
Corequisite: Guidance 511  
Designed for returning and continuing students to address the academic and personal challenges of college success. Various assessment tools are employed to identify and evaluate student preparation and attitude for a successful college experience. Positive growth and self-motivation strategies and topics are explored, with a special focus on developing realistic educational and life goals. Students address previous-employment learning skills and methods to evaluate their effectiveness. New and improved methods of study, time management, and the utilization of college support systems are mastered. Five hours of supplemental learning in a Success Center that supports this course are required.  
4930.10

511 College Success Seminar (1)  
(Non-degree-applicable)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Corequisite: Guidance 503  
Supplemental seminar designed to help students apply principles and concepts explored in the corequisite course. Students complete a comprehensive self-evaluation of their existing learning skills and preparedness for college, develop and implement a personal plan for success, connect with campus support programs and services, and develop a student educational plan that outlines a timeline for goal accomplishment.  
4930.10

592A-H Special Topics: Guidance (.5-6)  
(Non-degree-applicable)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Corequisite: Guidance 503  
Opportunity to explore guidance-related topics in greater depth. Emphasis selected by the instructor from variety of topics. See class schedule for emphasis. May be taken twice.  
4930.10
650 Supervised Tutoring (0)  
(Non-credit)  
Hours: Variable and arranged; based on student need as determined by assessment, diagnostic instruments, and/or instructor recommendation.  
Grading: Not graded.  
Limitation on Enrollment: Referral by course instructor or academic counselor is required.  
Open-entry/open-exit supervised tutoring course that facilitates study skills development and provides students assistance in understanding college course assignments. Individualized tutoring is conducted outside of class time in a learning assistance center, and is structured to help students achieve specific course objectives or improve learning and study skills in specific subject matter. The content of this course varies according to the course for which tutoring is sought.  
May be repeated.  

401 Basic ECG and Dysrhythmia Interpretation (2) [Cx]  
(Degree-applicable)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Study of basic electrocardiogram (ECG) waveforms in relation to atrial, junctional and ventricular dysrhythmias. Designed to assist health care workers with recognition and treatment of basic cardiac dysrhythmias.  
1230.00  

404 Health and Wellness for Older Adults (3)  
(Also available as Gerontology 404)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Understanding healthy aging as well as chronic conditions of later life. Health behaviors and lifestyle factors that contribute to good health in later life. Wellness practices that contribute to disease prevention.  
1309.00  

405 Computer Applications for Health Science (1)  
(Degree-applicable)  
Hours: 48-54 laboratory.  
Grading: Letter grade only.  
A basic understanding of micro-computer functions and an introduction to computer applications used in Health Sciences, such as SAMIS, Dentrix, and MSRADS. Students will learn the skills necessary to utilize specific computer software programs associated with health care clinical sites and learn to access resources on the Internet.  
1230.00  

425 Intravenous Therapy (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Legal and ethical issues in intravenous therapy; fluid and electrolyte balance; parenteral fluids, equipment and techniques for peripheral intravenous therapy and blood withdrawal, complications of intravenous therapy and administration of intravenous medication. Skills performance in patient care setting required.  
1230.00  

428 Basic Pharmacology (3) [Cx]  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Mathematics 401 and Biology 424.  
Basic concepts of pharmacology with emphasis on the role of the nurse in drug administration. Drugs affecting body systems; drugs used in neoplastic diseases, infectious diseases and in skin disorders; immunological agents, diagnostic agents, toxicology, fluids and electrolytes, and vitamins. Principles and factors for managing medication regimen in a home setting. Course is recommended for students enrolled in a nursing program and as Continuing Education credit for RN’s and LVN’s, BRN #00426.  
1230.00  

450 Laboratory Tests and Diagnostic Procedures (1)  
(Degree-applicable)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Advisory: Concurrent enrollment in another Health Science Course or current employment in a health profession.  
Common laboratory testing reviewed with diagnostic procedures. Preparation of patient interventions during testing and interpretation of test results. May be taken twice.  
1230.00  

460 Medical Information Systems (.5)  
(Degree-applicable)  
Hours: 24-27 laboratory.  
Grading: Letter grade only.  
Limitation on Enrollment: Concurrent enrollment in a Chaffey College Health Science program or current employment in a health profession is required.  
Introduction to the medical charting system at local area hospitals. Topics include: admission, personal data entry, patient assessment and medication administration documentation, information retrieval, and security, confidentiality, privacy, and ethics issues associated with patient information. Complete hospital simulations are presented. May be taken four times.  
1223.00  

470 Hand-Held Computers in Healthcare Environments (2)  
(Degree-applicable)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Advisory: Basic computer skills and health science background or education.  
Patient management through the use of hand-held computers (HHC’s). Point-of-patient care applications and data management. Topics include: retrieving and using Internet resources; downloading patient data, including ethical, privacy, and security issues; beaming; research; reports; and time management. May be taken twice.  
1223.00  

492A-H Special Topics: Health Science (.5-6)  
(Degree-applicable)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Selected special topics in a Health Science field for students who desire an extensive exploration of a specialized Health Science subject. May be taken for a total of 12 units regardless of the unit combination, however, no single-subject, special-interest course may be repeated.  
1230.00  

492LA-H Special Topics Laboratory: Health Science (.5-6)  
(Degree-applicable)  
Hours: 48-54 hours/term laboratory for each unit of credit.  
Grading: Letter grade only.  
Selected special topics laboratory for students who desire an extensive exploration of a specialized Health Science subject. May be taken four times regardless of the unit combination, however, no single-subject, special-interest course may be repeated.  
1230.00  

500 Health Science Skills Development I (1)  
(Non-degree-applicable)  
Hours: 48-54 self-paced laboratory.  
Grading: Pass/No Pass grade only.  
Application of appropriate health science skills in a simulated laboratory setting. Skills taught correspond to skills levels in current health science program. May be taken four times.  
1230.00  

510 Health Science Skills Development II (1)  
(Non-degree-applicable)  
Hours: 48-54 self-paced laboratory.  
Grading: Pass/No Pass grade only.  
Use of computers to improve test taking skills, critical thinking skills, and technical skills in conjunction with current health science courses. May be taken four times.  
1230.00
**HISTORY (HIST)**

1. **World History: Pre-Civilization to 1500 (3) (CSU; UC)**
   Hours: 48-54 lecture.
   Grading: Letter grade only.
   Comparative, integrative study of the world’s major civilizations, from pre-history to 1500, including those in Eurasia (Mesopotamia, Egypt, Hebrews, Greece and Rome, India and China), Africa, and the Americas. Emphasis on the similarities and differences between these civilizations, and on their influences on the unfolding of human history. May be offered as an Honors course. 2205.00

2. **World History: 1500 to Present (3) (CSU; UC)**
   Hours: 48-54 lecture.
   Grading: Letter grade only.
   Cross-cultural study of all the major civilizations of the world since 1500. The unifying theme is understanding the causes of the rise of the West; the reaction of the non-Western world to it; and the ongoing dynamics of the “West versus the Rest” dialectic. May be offered as an Honors course. 2205.00

4. **History of Slavery (3) (CSU; UC)**
   Hours: 48-54 lecture.
   Grading: Letter grade only.
   Survey of slavery from ancient times to the present. The origins of slavery in human societies, development as an institution, and the impact on the course of world history. 2205.00

5. **Early Western Civilizations (3) (CSU; UC)**
   Hours: 48-54 lecture.
   Grading: Letter grade only.
   Development of the cultural foundations of Western peoples from prehistoric times, through the rise and diffusion of civilization in the era of Middle Eastern dominance and the Middle Ages, and culminating with the Renaissance and Reformation periods in Western Europe. 2205.00

6. **Modern Western Civilizations (3) (CSU; UC)**
   Hours: 48-54 lecture.
   Grading: Letter grade only.
   Development of the cultural foundations of Western peoples from prehistoric times, through the rise and diffusion of civilization in the era of Middle Eastern dominance and the Middle Ages, and culminating with the Renaissance and Reformation periods in Western Europe. 2205.00

7. **History of the Middle East (3) (CSU; UC)**
   Hours: 48-54 lecture.
   Grading: Letter grade only.
   Survey of the history of the Middle East from earliest times to the present, focusing on the period from the birth of the Prophet Mohammad in 570 and the Treaty of Versailles in 1920. 2205.00

9. **History of Asian Civilizations I (3) (CSU; UC)**
   Hours: 48-54 lecture.
   Grading: Letter grade only.
   Cultural development of Asian peoples from prehistoric times to the sixteenth century A.D., with emphasis on the religion and philosophy as well as early social and political institutions in China, India, and Japan. 2205.00

10. **History of Asian Civilizations II (3) (CSU; UC)**
    Hours: 48-54 lecture.
    Grading: Letter grade only.
    Cultural development of Asian peoples and nations from the sixteenth century A.D. to the present, with emphasis on the tension created by the impact of the West on traditional Asian institutions in China, Japan, India, and Southeast Asia. Focuses particularly on the response of those cultures in terms of socioeconomic and political developments. 2205.00

12. **Asian American History (3) (CSU; UC credit pending)**
    Hours: 48-54 lecture.
    Grading: Letter grade only.
    Historical experience of the Asian-American community in the United States from the mid-nineteenth century to today. Overview of specific issues confronted by Asian groups, and their cultural roots, immigration experiences, and settlement patterns. 2205.00

16. **Westward Movement and the Indian Wars 1840-90 (3) (CSU; UC)**
    Hours: 48-54 lecture.
    Grading: Letter grade only.
    Survey of the westward movement of the American frontier and the Indian Wars of 1840-1900. Historical significance of the people and events that comprise this crucial period in the formation of the American identity are studied from the perspectives of Native Americans and other ethnic groups, as well as Anglo-Americans. 2205.00

17. **History of the United States (3) (CSU; UC)**
    Hours: 48-54 lecture.
    Grading: Letter grade only.
    Historical experience of the American frontier as determined by the Chaffey assessment process, or completion of READ-550. Survey of United States history from its colonial foundations through the Reconstruction Era (1865). Satisfies the California State University requirement in American History. May be offered as an Honors course. 2205.00

18. **History of the United States (3) (CSU; UC)**
    Hours: 48-54 lecture.
    Grading: Letter grade only.
    Historical experience of the American frontier as determined by the Chaffey assessment process, or completion of READ-550. Development of the United States from the Reconstruction Era (1865) through the present. Satisfies the California State University requirement in American History. May be offered as an Honors course. 2205.00

20. **Contemporary History of the United States from 1945-Present (3) (CSU; UC)**
    Hours: 48-54 lecture.
    Grading: Letter grade only.
    Careful analysis of recent events in U.S. history from 1945 to the present, including important historical movements and trends which demand closer scrutiny than History 18. 2205.00

21. **The Sixties in American History (3) (CSU; UC)**
    Hours: 48-54 lecture.
    Grading: Letter grade only.
    Issues and events of the most turbulent decade in recent American history - the 1960s. May be taught in lecture or seminar format. 2205.00

25. **Women in United States History (3) (CSU; UC)**
    Hours: 48-54 lecture.
    Grading: Letter grade only.
    Survey of women in U.S. history from the colonial era to the present. Course is taught in a seminar format. 2205.00

40. **Retrospective on the 20th Century: World War II (3) (CSU; UC)**
    Hours: 48-54 lecture.
    Grading: Letter grade only.
    World War II from the perspective of various viewpoints relative to the war's impact on but not limited to the following: history, sociology, philosophy, literature, the arts, business/technology, psychology, science, political science, religion, economics, and sports. Faculty from different disciplines will present materials relative to their expertise. 2205.00

50. **African-American History I (3) (CSU; UC)**
    Hours: 48-54 lecture.
    Grading: Letter grade only.
    African-American experience from the seventeenth-century African heritage to the American Civil War. Focuses on two great transitions: from Africa to New World slavery and from slavery to emancipation. 2203.00

51. **African-American History II (3) (CSU; UC)**
    Hours: 48-54 lecture.
    Grading: Letter grade only.
    African-American experience from emancipation to the present. Focuses on legal and extra-legal racial and gender discrimination in rural and urban settings after emancipation; migrations to northern industries and western lands; and black contributions to United States politics and economy. 2203.00

70. **Chicanos: The Common History of Mexico and the United States (3) (CSU; UC)**
    Hours: 48-54 lecture.
    Grading: Letter grade only.
    Study of the historical relationship between Mexico and the United States from their common Native American roots to present-day. Examination of pivotal events and their outcomes, such as the Spanish and British colonial systems, processes of independence and nation-building, the Mexican-American War, the 1910 Mexican Revolution, the Oil Crisis of the 1970’s, NAFTA, and present border conflicts. 2203.00

71. **Chicanos: The Chicano Minority in the United States (3) (CSU; UC)**
    Hours: 48-54 lecture.
    Grading: Letter grade only.
    Historical development of a Mexican-American community and the emergence of a Chicano cultural identity. Issues and conflicts affecting the Chicano minority from the nineteenth century to the present. 2203.00
COURSE DESCRIPTIONS

90A History Honors Seminar (1)  
(CSU; UC credit limitations)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Honors component for History. Topics of interest are chosen by the instructor and students, and are presented in a seminar format. Prerequisites and/or corequisites are required. May be taken four times with change in topic emphasis.  
2205.00

92A-H Special Topics: History (.5-6)  
(CSU; UC credit limitations)  
Hours: 16-18 lecture/term for each unit of credit.  
Grading: Letter grade only.  
Special-interest course of varying length for students who wish further exploration in specific areas of history. Topics will be determined by the individual instructor. This course may be taken only four times regardless of the unit combination. However, no single-subject special-interest class may be repeated. May require corequisites and/or prerequisites based on the content of the course.  
2205.00

90 Seminar in History (3)  
(CSU; UC credit limitations)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Frame of reference for selecting product, appropriate receipt and storage, use of computer technology, and marketing tactics. Focus on systems of guest accommodations, front office routines and reports, machine operation, room rates, principles of people management, and application of data processing.  
1307.10

10 Introduction to Hospitality Management (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Designed to bring together one or more faculty members and a small group of students with a common interest, to pursue study of a selected topic in history through the seminar approach. May be taken twice.  
2205.00

14 Quantity Food Production Management (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of or concurrent enrollment in Hotel and Food Service Management 16.  
In-depth introduction to management concerns unique to quantity food production in institutional settings. Real-world exercises in record keeping, staffing, standardizing recipes, terminology and nomenclature use, storage requirements, quality control, emergency protocols, and Hazardous Analysis Critical Control Points (HACCP) procedures. Prepares students for entry-level positions in institutional food service.  
1307.10

16 Principles of Food Preparation (2)  
(CSUS)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Corequisite: Hotel and Food Service Management 16L.  
Advisory: Concurrent enrollment in Hotel and Food Service Management 16.  
Principles and techniques in professional food preparation, including professional demeanor, science and lore of the kitchen, food service safety and sanitation policies and procedures, recipe specifications, food cost calculations, and kitchen equipment use and maintenance. Basic culinary concepts – including mise en place, dry and moist cookery, and appropriate use of produce, dairy and dry goods – are examined.  
1306.30

16L Principles of Food Preparation Laboratory (1)  
(CSUS)  
Hours: 48-54 laboratory.  
Grading: Letter grade only.  
Corequisite: Hotel and Food Service Management 16L.  
Hands-on application of professional food preparation techniques. Students plan, prepare, and produce food items following basic or converted recipes that employ moist and dry heat cooking methods. Collaboration, teamwork, and proper kitchen safety and sanitation procedures are emphasized.  
1306.30

18 Sanitation, Safety and Equipment Management (2)  
(CSU)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Safety, sanitation, and proper equipment management issues in the food service industry. In-depth coverage of industry-based sanitation and safety standards that prevent contamination and food-borne illness, food-stall on-the-job accidents and injuries, and preclude equipment misuse and damage. Disaster planning fire prevention, and basic first aid procedures are highlighted. Special emphasis on the local, state, and federal agencies and programs such as OSHA, HACCP, and Serv-Safe - having regulatory oversight in food service workplaces.  
1307.10

20 Purchasing, Cost Controls, and Menu Planning (2)  
(CSU)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Principles, policies, and procedures associated with the procurement and conveyance of food and beverages in the food service industry. Focus on systems for selecting product, appropriate receipt and storage, inventory controls, menu item specification development, commercial menu costing strategies, and descriptive menu design and marketing.  
1307.10

422 Hotel Operations (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Operation and organization for the front office within a variety of hospitality lodging situations. Career opportunities, systems of guest accommodations, front office routines and reports, machine operation, room rates, principles of people management, and application of data processing.  
1307.20

424 Dining Systems and Restaurant Operations (3)  
(Degree-applicable)  
Hours: 24-27 lecture; 72-81 laboratory.  
Grading: Letter grade only.  
Limitation on Enrollment: Proof of a current negative tuberculin test is required.  
Prerequisite: Hotel and Food Service Management 14 and 436A.  
Dynamic, hands-on application of food service skills in a commercial dining facility. Using guided practice and peer mentoring, students assume the various service, culinary, and management stations involved in CC’s Cafe operation, practicing the real-world professional skills essential to workplace success. At each station, students analyze their professional and technical performances as they relate to guest satisfaction, personal goals, and team achievements. May be taken three times.  
1307.10

428 Human Resource Management (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Hotel and Food Service Management 10.  
Management theory applied to on-the-job realities in the hotel and food service industry, focusing on the knowledge and skills needed for effective personnel management. Topics include: recruitment, selection, and hiring; employee development and motivation; benefits and compensation issues; productivity and performance evaluations; labor relations and legal considerations; and conflict resolution. Emphasis on the crucial importance of effective communication and multicultural sensitivity to successful hospitality management practices.  
1307.00

430 Hospitality Marketing Management (2)  
(Degree-applicable)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Marketing strategies applied to hotel-motel industries, restaurant and institutional food service. Identification of the market, image development, advertising, sales promotions, public relations, and administering and control of a marketing plan.  
1307.00

432 Hospitality and Healthcare Law (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Legal aspects of the hospitality and healthcare industries, including an introduction to Title 22 and hospitality law. Topics include licensing; labor laws; safety, liability, and risk management; rights of employees, residents, and guests; and legal records and documentation.  
1307.00
434 Catering and Banquet Organization (3)
(Degree-applicable)
Hours: 24-27 lecture; 72-81 laboratory.
Grading: Letter grade only.
Limitation on Enrollment: Proof of a current negative tuberculosis test is required.
Prerequisite: Hotel and Food Service Management 14 and 436A.
Introduction to banquet operations, one of the fastest growing and lucrative areas of the food service industry. Topics include: marketing, packaging and pricing strategies; contracts and licensing; staffing, payroll and bookkeeping; party planning and wedding coordination; on- and off-premise venues; food preparation; beverage service; niche cuisines; equipment costs; set-up and breakdown procedures; and transportation needs. Participation in the planning, production, and analysis of a series of public events (plated dinner, buffet luncheon, cocktail party) is a required part of the course. May be taken three times.
1306.30

436A Culinary Arts I (2)
(Degree-applicable)
Hours: 16-18 lecture; 48-54 laboratory.
Grading: Letter grade only.
Limitation on Enrollment: Proof of a current negative tuberculosis test is required.
Prerequisite: Hotel and Food Service Management 16 and 18.
Advisory: Completion of Mathematics 510.
Introduction to the culinary arts, including a historical and contemporary exploration of culinary cuisines. Practical application of culinary theory and technique that provides students with a realistic experience of professional cooking and kitchen culture. Focus on basic and intermediate knife skills; the production of stocks, soups and sauces; vegetable and starch identification, fabrication, and cooking; egg and breakfast comestibles; and the cold kitchen, including salad, cold sauce, and sandwich preparation. Kitchen safety and sanitation rules are revised and practiced. May be taken three times.
1306.30

436B Culinary Arts II (2)
(Degree-applicable)
Hours: 16-18 lecture; 48-54 laboratory.
Grading: Letter grade only.
Limitation on Enrollment: Proof of a current negative tuberculosis test is required.
Prerequisite: Hotel and Food Service Management 436A.
Intermediate study of the culinary arts. Continuing exploration of its foundations, principles, and practical skills, with focus on meat, poultry, fish, and shellfish identification, fabrication, and cooking. Examination of the history and modern interpretations of the art of garde manger, including hors d’oeuvres, pates, terrines, and charcuterie. Production of European, Asian, and American regional cuisines, with special consideration to development, plating, and presentation. Kitchen safety and sanitation rules are reinforced and practiced. May be taken three times.
1306.30

436C Culinary Arts III (2)
(Degree-applicable)
Hours: 16-18 lecture; 48-54 laboratory.
Grading: Letter grade only.
Limitation on Enrollment: Proof of a current negative tuberculosis test is required.
Corequisite: Hotel and Food Service Management 16 (may be taken previously).
Effective and attractive food presentation methods, including the creation and use of garnishes. Introduction to basic principles of bakeshop production and ingredient selection. Preparation of yeast doughs, quick breads, cookies and cakes, pies and fillings, savory and sweet baked goods, and pastries. May be taken three times.
1306.30

492A-H Special Topics: Hotel and Food Service Management (1.5-6)
(Degree-applicable)
Hours: 16-18 hours/term lecture for each unit of credit.
Grading: Letter grade only.
Special-interest lecture course of varying length for students who wish to gain information in specific areas of hotel and food service management. Topics and course content determined by the individual instructor; see class schedule for current term emphasis. May be taken four times regardless of the unit combination, however no single-subject, special-interest class may be repeated.
1307.00

496A.B.C.D Work Experience: Hotel and Food Service Management (1, 2, 3, or 4)
(Degree-applicable)
Hours: 60 hours/term (unpaid) or 75 hours/term (paid) on-site work experience for each unit of credit.
Grading: Letter grade only.
Limitation on Enrollment: Instructor or program coordinator signature is required prior to enrollment. Supervised work experience in the operation of a hotel, motel, or food service operation. Includes front office, night audit, and marketing experience. May be taken four times for a maximum of 16 units.
1307.00

HUMANITIES (HUMAN)

5 Arts and Ideas: Antiquity to Renaissance (3)
(CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
An interdisciplinary study of the movements in art, music, literature, and philosophy of Ancient Western Civilization, within a cultural and historical perspective.
1504.00

6 Arts and Ideas: Renaissance to Modern (3)
(CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
An interdisciplinary study of the movements in art, music, literature, and philosophy of Ancient Western Civilization, within a cultural and historical perspective.
1504.00

20 The Holocaust: History and Philosophy (3)
(CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Examination of the philosophical underpinnings and historical developments leading to the rise of Nazi Germany and the implementation of a policy of destruction for European Jewry.
2205.00

70 Museum and Gallery Field Study (1)
(Also available as Art 70 and Photography 70)
(CSU)
Hours: 16-18 lecture.
Grading: Letter grade only.
Advisory: Completion of any art or photography course.
Field trips are a required part of this course. May be taken four times.
1504.00

90A.B Humanities Honors Seminar (2)
(CSU; UC credit limitations)
Hours: 32-36 lecture.
Grading: Letter grade only.
Honors component for the Humanities. Topics of interest are chosen by the instructor and students, and are presented in a seminar format. Prerequisites and/or corequisites are required. May be taken four times with change in topic emphasis.
1504.00

INDUSTRIAL ELECTRICAL TECHNOLOGY: CORE (IET)

401A Introduction to Electricity (2.5) [Cx]
(Degree-applicable)
Hours: 32-36 lecture; 24-27 laboratory.
Grading: Letter grade only.
Advisory: Completion of Mathematics 410 or a higher level mathematics course.
Principles of basic electricity. Ohms Law, series and parallel circuits, conventional current theory, current flow, conductors and insulators, combination circuits, and power ratings.
0934.40

401B Industrial Basic Controls (2.5)
(Degree-applicable)
Hours: 32-36 lecture; 24-27 laboratory.
Grading: Letter grade only.
Advisory: Completion of Industrial Electrical Technology 401A, or one year or more of professional work experience in a related field.
Study of batteries and other sources of electricity, magnetism, magnetic induction, direct current generators, measuring instruments, resistive and capacitive circuits.
0934.40

403A Electrical Motors and Controls I (2.5)
(Degree-applicable)
Hours: 32-36 lecture; 24-27 laboratory.
Grading: Letter grade only.
Advisory: Completion of Industrial Electrical Technology 401A, or one year or more of professional work experience in a related field.
Principles of motor controls. Topics include: direct current motors, basic trigonometry, alternating current, inductance in alternating current circuits, resistive-inductive series circuits, capacitors, and resistive-inductive-capacitive parallel circuits.
0934.40
403B  Electrical Motors and Controls II (2.5)  
(Degree-applicable)  
Hours: 32-36 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology 403A, or one year or more of professional work experience in a related field.  
Applications of motor controls. Topics include: resistive-inductive parallel circuits, resistive-inductive-capacitive parallel circuits, three-phase circuits, single- and three-phase transformers, single- and three-phase motors, and three-phase alternators.  
0934.40

405  National Electric Code (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology 403A, or two years or more of professional work experience in a related field.  
Interpretation and application of the National Electric Code (NEC), with emphasis on wire size, conduit, motor load protection, classified areas, grounding, and the latest NEC updates. May be taken four times.  
0934.40

407  Electrical Blueprints (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology 403A, or one year or more of professional work experience in a related field.  
Interpretation of basic ladder diagrams, one line diagrams, electrical symbols, schematics, hydraulic symbols, and diagrams including pictorials.  
0934.40

409  Static Devices (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology 403B, or one year or more of professional work experience in a related field.  
Basic static devices, diodes, transistors, field effect transistors, silicon controlled rectifiers, and other solid state devices used in industry.  
0934.40

411  Programmable Logic Controllers (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology 403B, or two years or more of professional work experience that includes basic computer skills.  
Ladder diagrams, common computer terms, and operation of the programmer. Verifying and programming of timers and counters. May be taken twice.  
0934.40

413  Intermediate Programmable Logic Controllers (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology 411, or two years or more of professional work experience that includes basic knowledge of PLC’s.  
PLC advanced ladder diagrams; operations of the programmer; verifying, editing, and programming of timers, counters, master control relays, and jump instructions, using a computer. May be taken four times.  
0934.40

415  Advanced Electricity Laboratory (2)  
(Degree-applicable)  
Hours: 16-18 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology 405, 407, 409, and 411, or two years or more of professional work experience that includes knowledge of PLC’s and static devices.  
Application and integration of concepts and skills covered in the prerequisite lecture courses. Topics include: designing motor control systems, translating information from blueprint to ladder diagrams and employing it into the PLC program, and applying assignments into a hardwire system. May be taken four times.  
0934.40

417  Electrical Troubleshooting (3)  
(Degree-applicable)  
Hours: 40-45 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology 405A, 409, and 411, or two years or more of professional work experience that includes knowledge of static devices.  
Applying the knowledge learned on DC/AC motor controls, blueprint reading, and developing troubleshooting skills. May be taken four times.  
0934.40

419  DC Variable Speed Drive (1.5)  
(Degree-applicable)  
Hours: 16-18 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology 403A, or two or more years of professional work experience in a related field.  
Function and controls of a DC variable speed drive and its application on the field, including adjustments, settings, tuning, and configuration. May be taken twice.  
0934.40

421  AC Variable Frequency Speed Drive (1.5)  
(Degree-applicable)  
Hours: 16-18 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology 419, or two or more years of professional work experience in a related field.  
Function and controls of an AC variable frequency drive and its application on the field, including parameter setting, tuning, and configuration. May be taken twice.  
0934.40

422  OSHA Construction Safety Training (2)  
(Degree-applicable)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Construction industry safety and health standards, taught in accordance with Occupational Safety and Health Administration (OSHA) requirements. Course is targeted to entry-level workers. Upon successful completion, students receive the OSHA (30-hour) card.  
0934.40

458  Fundamentals of Cable Networking: The Physical Layer (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Tool use and construction techniques. The characteristics of various industry standards. Troubleshooting and repair for entry-level technicians in the network cabling industry. A certificate is issued by C-Tech Associates upon successful completion of this course.  
0934.40

459  Fundamentals of Fiber Optic Cabling: The Physical Layer (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology 458, or one year or more of professional work experience in a related field.  
Fiber optic theory, tool use, and construction techniques. The characteristics of various fiber optic components. Troubleshooting and repair for entry-level technicians in the network cabling industry, with emphasis on fiber optics. A certificate is issued by C-Tech Associates upon successful completion of this course.  
0934.40

470  FCC License Preparation Laboratory (1)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Corequisite: Industrial Electrical Technology 470L.  
Laboratory course designed for students preparing for FCC licensing. Hands-on coverage of the essential topics in electronics and communications currently covered on the FCC GROL exam. An up-to-date coverage of rules and regulations, semiconductor theory, and digital circuits. May be taken three times.  
0934.00

492A-H  Special Topics: Industrial Electrical Technology (.5-6)  
(Degree-applicable)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
A special topics lecture for students who desire in-depth exploration in specialized areas of industrial electrical technology. Topics vary, and are determined by the instructor. See schedule of classes for current emphasis. May require prerequisites and/or corequisites, based on the content of the course. May be taken four times regardless of the unit combination.  
0934.40

492LA-H  Special Topics Laboratory: Industrial Electrical Technology (.5-6)  
(Degree-applicable)  
Hours: 48-54 hours/term laboratory for each unit of credit.  
Grading: Letter grade only.  
A special topics laboratory for students who desire in-depth exploration in specialized areas of industrial electrical technology. Topics vary, and are determined by the instructor. See schedule of classes for current emphasis. May require prerequisites and/or corequisites, based on the content of the course. May be taken four times regardless of the unit combination.  
0934.40
496A, B, C, D, Internship in Industrial Electricity (1, 2, 3, 4)  
(Degree-applicable)  
Hours: 40-48 lecture; 40-48 laboratory.  
Grading: Letter grade only.  
Limitation on Enrollment: Instructor signature is required prior to enrollment.  
Prerequisite: Industrial Electrical Technology 401A.  
Co-requisite: Enrollment in any industrial electricity course.  
Supervised industry internship in cooperation with private or public sector employers. Provides students expanded, hands-on learning opportunities to apply knowledge and learn new skills directly related to their industrial electricity systems program of study, outside of the classroom environment. Placement is arranged by/approved by the instructor. Participation requirements may vary with the job setting. May be taken up to four times for a maximum of 12 units credit. 0934.40

IET: ELECTROMECHANICAL TECHNOLOGY (IETELMT)

430 Hydraulic Fundamentals (2) [Cx]  
(Degree-applicable)  
Hours: 24-27 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Introduction to hydraulic fundamentals, demonstration of hydraulic power, basic circuits, functional circuits, and troubleshooting. 0935.00

432 Electrical Control of Hydraulic Systems (2)  
(Degree-applicable)  
Hours: 24-27 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology: Electromechanical Technology 430, or one year of professional work experience in a related field.  
Principles of electrical control of hydraulic systems, electrical concepts of ladder diagrams, functional systems of electrical/hydraulic sequencing of cylinders, industrial applications, and troubleshooting electrical-ly-controlled hydraulic systems. 0935.00

434 Hydraulic Applications with Programmable Logic Controllers (2)  
(Degree-applicable)  
Hours: 24-27 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology: Electromechanical Technology 411, or one year or more of professional work experience that includes knowledge of PLC’s.  
Principles of electrical control of hydraulic systems, electrical concepts of ladder diagrams, functional systems of electrical/hydraulic applications, demonstrating servo controls, proportional controls, and programmable logic controllers. May be taken twice. 0935.00

436 Pneumatics Fundamentals (2) [Cx]  
(Degree-applicable)  
Hours: 24-27 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Introduction to pneumatics and familiarization with basic concepts of pressure, volume, force, directional speed control, pilot valves, and pneumatic motor circuits and performance. 0935.00

438 Electrical Control of Pneumatics Systems (2)  
(Degree-applicable)  
Hours: 24-27 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology: Electromechanical Technology 430, or one year or more of professional work experience in a related field.  
Electrical control of pneumatics, concepts, functional systems, industrial-type electropneumatic circuits, and troubleshooting of electrical control and electropneumatic circuits. 0935.00

440 Sensors for Hydraulics and Pneumatics Training Systems (1.5)  
(Degree-applicable)  
Hours: 16-18 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology: Electromechanical Technology 432, or two years or more of professional work experience in a related field.  
Electrical control sensors for hydraulic systems, photoelectric and proximity switches representative of what can be found in the fluid power industry. 0935.00

IET: INSTRUMENTATION TECHNOLOGY (IETIT)

441 Flow Process Fundamentals (2) [Cx]  
(Degree-applicable)  
Hours: 24-27 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Introduction to flow process fundamentals. Understanding how current flow responds to changes and the terminology (dead time, rise time, and settling time) used to describe the response. Operation and calibration of the instruments used to control the process. 0943.00

442 Flow Measurement and Control (2)  
(Degree-applicable)  
Hours: 24-27 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology: Instrumentation Technology 441, or one year or more of professional work experience in a related field.  
Operation and troubleshooting of flow measurement channel and control processes. Operation and calibration of a variable speed drive. Monitoring and evaluating the reactions of a process disturbance on a chart recorder. 0943.00

443 Level Measurement Fundamentals (2)  
(Degree-applicable)  
Hours: 24-27 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Introduction to level measurement fundamentals. Understanding the many applications of level transmitters, characteristics, and time response. Operation and calibration of the instruments used to control the process. 0943.00

444 Level Measurement and Control (2)  
(Degree-applicable)  
Hours: 24-27 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology: Instrumentation Technology 443, or one year or more of professional work experience in a related field.  
Notch, ultimate period, and open-loop tuning of a level process. Operation and troubleshooting of level measurement channel and control processes. Differences between two- and three-element control processes. Operation and calibration of the instruments used to control the process under unstable conditions. 0943.00

445 Temperature Process Fundamentals (2)  
(Degree-applicable)  
Hours: 24-27 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology: Instrumentation Technology 444, or one year or more of professional work experience in a related field.  
Instruction in and performance of the tasks done by instrument technicians in industry, including calibration, troubleshooting, and operation of microprocessor-based controllers. 0943.00

446 Temperature Process Controller (2)  
(Degree-applicable)  
Hours: 24-27 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Advisory: Completion of Industrial Electrical Technology: Instrumentation Technology 445, or one year or more of professional work experience in a related field.  
Instruction in and performance of the tasks done by instrument technicians in industry, including calibration, troubleshooting, and repair of instruments ranging from pneumatic booster relays to microprocessor-based automatic controllers. 0943.00

INTERIOR DESIGN (ID)

10 Introduction to Interior Design (3) [Cx]  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Overview of the interior design field. Examination of floor plans, furniture arrangement, design elements and principles, furniture history and types, as well as the effect of color, lighting, and floor, wall and window treatments. Evaluation of good interior design for residential and commercial installations. 1302.00

11 History of Western Architecture and Interiors I (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Furniture, interior and architectural styles of ancient Egypt, Greece, and Rome; the European Middle Ages, the Renaissance, and the French periods to 1820. 1302.00

12 History of Western Architecture and Interiors II (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Furniture, interior and architectural styles of the English, Anglo-American, and late nineteenth and twentieth century Western periods. 1302.00

13 Non-European Architecture and Design (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Architecture and design of China, Japan, Africa, the Middle East, pre-Columbian Mesoamerica, and the American Indian, including: African sculpture; Navajo rugs and blankets; Southwest American Indian architecture and pottery; Chinese and Japanese traditional architecture, furniture, and ceramics; “Oriental” rugs; and Balinese architecture and art. 1302.00
15 Drafting for Interior Designers (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Completion of an intermediate level design course.  
Lab: Letter grade only.  
Line quality, lettering, conceptual presentation, working drawings, elevations, sections, details, dimensioning, schedules, lighting, electrical, and reflected ceiling plans. Organization of project. Completion of a set of plans.  
1302.00

16 Quick Sketching for Interior Designers (2.5)  
(CSU)  
Hours: 32-36 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Freehand sketching techniques for illustrating interiors in three dimensions. Includes perspective, shading, textures, and use of materials. Emphasis on quick presentation of ideas for designer or client.  
1302.00

17 Introduction to Lighting (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Basic principles of lighting and their application. Visual perception, properties of light and color, sources and luminaires, lighting design elements and techniques, and elementary calculations. Energy efficient lighting practices and applicable codes and regulations. Written and graphic design documents.  
1302.00

18 Perspective Drawing (3)  
(CSU)  
Hours: 32-36 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Theory and skills necessary for drawing furnished interiors for both residential and commercial design projects. Theory of one-, two-, and three-point perspective. Isometric and axonometric drawing. Principles of light and shadow.  
1302.00

21 Space Planning (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Furniture layouts and space planning for residential and commercial interiors. Elevations, lettering, furniture layouts, partition plans, reflected ceiling plans, electrical plans, schedules. Human factors and behavioral needs. Barrier free access. Bubble diagrams and adjacencies. Set of working drawings - residential and commercial.  
1302.00

22 Interior Design Materials (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Materials and treatments used in current design installations. Window treatments, wall treatments, floor coverings, furniture construction, cabinet woods, and interior architectural details. Health and safety requirements.  
1302.00

23 Interior Rendering (3)  
(CSU)  
Hours: 32-36 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Interior Design 18.  
Addition of color to perspective views of furnishings and interiors. Experimentation with a variety of techniques and media used in the illustration of furnishings, accessories, and backgrounds. Rendering of various hard and soft textures.  
1302.00

25 Interior Design Management (2)  
(CSU)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Practical course in the special problems encountered in the interior design profession, including measuring and estimating materials, purchasing, client relationships, ethics, methods of compensation, contracts and business documents.  
1302.00

30 Advanced Design Studio (3.5)  
(CSU)  
Hours: 48-54 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Prerequisite: Interior Design 16, 21, and 22.  
Advanced level course integrating knowledge, problem solving, and visual and oral communication. Furniture layouts, space planning, elevations, renderings, estimates, schedules, selection of interior components and materials, reflected ceiling, lighting, and electrical plans for a residential and a commercial project.  
1302.00

92A-H Special Topics: Interior Design (5-6)  
(CSU)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Special-interest course of varying length for students who wish further exploration in specific areas of interior design. Topics will be determined by instructor and may cover a range of topics relevant to the interior design field. May be taken only four times regardless of the unit combination. However, no single-subject, special-interest class may be repeated.  
1302.00

92LA-H Special Topics Laboratory: Interior Design (5-6)  
(CSU)  
Hours: 48-54 hours/term laboratory for each unit of credit.  
Grading: Letter grade only.  
Special-interest course of varying length for students who wish further development of skills in specific areas of interior design such as drafting, rendering, sketching, space planning, lighting, and actual design project. May be taken only four times regardless of the unit combination. However, no single-subject, special-interest class may be repeated.  
1302.00

427 Computer Aided Design for Set and Interior Design (3)  
(Also available as Theatre Arts 427)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Basic familiarity with Macintosh or Windows computers. Computer aided design using professional software, such as AutoCAD, Revit, Architectural Desktop, and ArchiCAD. Floor plans, furniture layouts, elevations, lighting plans, 3-D perspectives, and renderings. Use of various printers and plotters. May be taken 3 times.  
1302.00

482 Industry Internship: Interior Design (1)  
(Degree-applicable)  
Hours: 60 hours (unpaid) or 75 hours (paid) on-site work experience.  
Grading: Letter grade only.  
Limitation on Enrollment: Consent of instructor is required prior to registration.  
Prerequisite: Interior Design 30.  
Supervised industry internship in cooperation with a private sector design, architectural, and product distribution firm. Provides students expanded, hands-on learning opportunities to apply knowledge and learn new skills, directly related to their program of study, outside of the classroom environment. Placement is arranged by/approved by the instructor. Participation requirements may vary with the job setting.  
1302.00

10 Newswriting (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Eligibility for English 1A as determined by the Chaffey assessment process, or completion of English 450 or English as a Second Language 450.  
Advisory: Ability to type.  
Principles of writing news stories with emphasis on selecting and organizing information in a clear, accurate, coherent, and concise manner. Fundamentals of correct grammar and spelling are stressed, as well as news copy preparation and format. Five hours of supplemental learning in the newspaper production laboratory is required.  
0602.00

11 Advanced Newswriting and Editing (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: English 1A.  
Advisory: Completion of Journalism 10.  
Principles and practice in writing specialized types of magazine and newspaper articles, including features, editorials, and in-depth news and sports events stories. Mastery of fundamental reporting techniques and advanced editing skills are emphasized. Ten hours of supplemental learning in the newspaper production laboratory is required.  
0602.00

61A.B.C Newspaper Production (1, 2, or 3)  
(CSU)  
Hours: 48-54 hours/term laboratory for each unit of credit.  
Grading: Letter grade only.  
Advisory: Typing and/or computer skills, and the ability to take black-and-white photos. Experience in planning, editing, and producing a weekly or bi-weekly newspaper. Students cover campus and community events; write news and feature stories, editorials, reviews, and headlines; edit copy using the departments’ computer for typesetting; typeset copy; take, print, and edit photos; paste up page flats or printing; and distribute finished paper on campus. May be taken four times regardless of the unit combination.  
0602.00

92A-H Special Topics: Journalism (5-6)  
(CSU)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Special interest class of varying length for students who seek further development in specific areas of journalism. Wide variety of topics with particular emphasis left to the instructor. May be taken four times. However, no single-subject, special-interest class may be repeated.  
0602.00

98A-H Independent Study: Journalism (1, 2, 3)  
(CSU credit limitations)  
Grading: Letter grade only.  
Limitation on Enrollment: Instructor signature is required for registration.  
Advisory: Prior journalism coursework is recommended. Special project course designed for the capable, well-motivated student with previous coursework in the discipline. Student explores and develops a project or paper on an area of personal interest in journalism. Nature and extent of the project must be decided by both the student and instructor before the student registers, since the scope of the project determines the number of units awarded. May be taken four times.  
0602.00
M A N A G E M E N T  ( M G M T )  
(SEE BUSINESS AND BUSINESS: MANAGEMENT)

M A T H E M A T I C S  ( M A T H )

4  Mathematical Concepts for Elementary School Teachers (4)  
(CSU; UC)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Prerequisite: Eligibility for Mathematics 25 as determined by the Chaffey assessment process, or completion of Mathematics 425.  
Study of mathematical concepts, targeted primarily to students preparing to teach elementary school mathematics. For such students, this course fulfills the same transfer requirement as MATH-25. Topics include: real number systems and subsystems, patterns and sequences, basic set theory, logic, and mathematical induction. Emphasis is on comprehension of concepts and application of logical reasoning and critical analysis in problem-solving.  

25  College Algebra (4)  
(CSU; UC credit limitations)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Prerequisite: Eligibility for Mathematics 25 as determined by the Chaffey assessment process, or completion of Mathematics 425.  
Coordinate geometry and graphing techniques; conic sections; solutions to higher degree polynomial equations; functions; polynomial, rational, inverse, exponential and logarithmic functions; systems of nonlinear equations and inequalities; matrices and determinants; sequences and series; binomial expansion; mathematical induction; and introduction to mathematical proof.

31  Plane Trigonometry (4)  
(CSU)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Prerequisite: Eligibility for Mathematics 25 as determined by the Chaffey assessment process, or completion of Mathematics 425.  
Trigonometric functions including definitions of the circular functions. Radian measure, graphs, inverse trigonometric functions, trigonometric equations and identities, solution of right and oblique triangles, applications, vectors, complex numbers, polar coordinates and graphs, equation of conics, and rotation of axes. A graphing calculator is required; see instructor for specifics, since CAS-based calculators may be prohibited.  

60  Calculus with Applications (4) [Cx]  
(CSU; UC)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Prerequisite: Mathematics 31.  
Techniques of calculus as applied to problem solving in business and the social, behavioral, and natural sciences. Topics include: limits, continuity, differentiation and integration in one and several dimensions, optimization, and transcendental functions.  

61  Pre-Calculus (4) [Cx]  
(CSU; UC credit limitations)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Prerequisite: Mathematics 25 and 31.  
Further studies in algebra and trigonometry for students intending to take calculus. Factoring techniques, nonlinear inequalities including absolute values, partial fractions, introduction to limits, graphing rational functions, conic sections, and trigonometric functions and inverses. Trigonometric concepts emphasized as needed for calculus, including identities, equations, and applications. A graphing calculator is required; see instructor for specifics, since CAS-based calculators may be prohibited.  

65A  Calculus I (4) [Cx]  
(CSU; UC)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Prerequisite: Mathematics 61.  
Advisory: Prior experience with a graphing calculator is needed.  
Functions, limits, and continuity; differentiation of algebraic, trigonometric, logarithmic, and exponential functions with applications; integration of algebraic, trigonometric, logarithmic, and exponential functions; and the definite integral and some applications, including rectilinear motion and average value. A graphing calculator is required; see instructor for specifics, since CAS-based calculators may be prohibited.  

65B  Calculus II (4) [Cx]  
(CSU; UC)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Prerequisite: Mathematics 65A.  
Advisory: Prior experience with a graphing calculator is needed.  
Applications of the definite integral including area, volume, arc length, surfaces of revolution, work, and centroids of planar regions; differentiation and integration involving hyperbolic, inverse trigonometric and inverse hyperbolic functions; techniques of integration; indeterminate forms and improper integrals; infinite series; conic sections; polar coordinates and parametric equations. A graphing calculator is required; see instructor for specifics, since CAS-based calculators may be prohibited.  

75  Calculus III (5) [Cx]  
(CSU; UC)  
Hours: 80-90 lecture.  
Grading: Letter grade only.  
Prerequisite: Mathematics 65B.  
Advisory: Prior experience with a graphing calculator is needed.  
Topics include: vectors; lines planes and surfaces in space; cylindrical and spherical coordinates; vector-valued functions; functions of several variables; differential calculus, including partial derivatives, chain rule, directional derivatives, gradients, implicit differential and extreme values; multiple integration; line integrals; surface integrals; Jacobians; vector theory; and theorems of Gauss, Green, and Stokes. A graphing calculator is required; see instructor for specifics, since CAS-based calculators may be prohibited.  

81  Linear Algebra (4) [Cx]  
(CSU; UC)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Prerequisite: Mathematics 75.  
Systems of linear equations, vectors, matrices and determinants, 2- and 3-dimensional vectors, vector spaces, linear transformations, eigenvalues and eigenvectors, and canonical forms.  

85  Differential Equations (4) [Cx]  
(CSU; UC)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Prerequisite: Mathematics 75.  
Advisory: Prior experience with a graphing calculator is needed.  
Methods of solving ordinary differential equations with applications primarily in the physical sciences. A graphing calculator is required; see instructor for specifics, since CAS-based calculators may be prohibited.  

90A  Mathematics Honors Seminar (1)  
(CSU; UC credit limitations)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Honors component for Mathematics. Topics of interest are chosen by the instructor and students, and are presented in a seminar format. Prerequisites and/or corequisites are required. May be taken four times with change in topic emphasis.  

92A-H  Special Topics: Mathematics (5-6)  
(CSU; UC credit limitations)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Special-interest course of varying length for students who wish further exploration in specific areas of mathematics. Topics will be determined by the individual instructor. This course may be taken only four times regardless of the unit combination. However, no single-subject, special-interest class may be repeated. May require corequisites and/or prerequisites based on the content of the course.  

401  Mathematics for Health Science (1)  
(Degree-applicable)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Prerequisite: Eligibility for Mathematics 410 as determined by the Chaffey assessment process, or completion of Mathematics 520 or 521.  
Course is targeted to students applying for the Nursing A.D.N. program. Topics include: metric, apothecary, and household systems of measurement; system conversions; adult and child dosages; and calculations involving oral, intravenous, and intramuscular medication administrations.  

410  Elementary Algebra (4)  
(Degree-applicable)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
Prerequisite: Eligibility for Mathematics 410 as determined by the Chaffey assessment process, or completion of Mathematics 520 or 521.  
Fundamental algebraic operations of addition, subtraction, multiplication, and division. Special products and factoring, rational expressions and their operations, solution and application of linear and fractional equations, graphing of linear and quadratic equations in two variables, introduction to radicals and quadratic equations, function notation, and introduction to linear systems of equations.
411 Re-Entry Review of Elementary Algebra (2)
(Degree-applicable)
Hours: 32-36 lecture.
Grading: Letter grade only.
Prerequisite: Mathematics 410.
Review of elementary algebraic concepts, including operations of addition, subtraction, multiplication and division; special products and factoring; rational expressions and their operations; solution and application of linear and fractional equations; graphing of linear and quadratic equations in two variables; introduction to radicals and quadratic equations; function notation; introduction to linear systems of equations; and determining the equation of a line. Course is designed for students returning to mathematics after some absence, who need a comprehensive review of elementary algebra before continuing with intermediate algebra.
1701.00

425 Intermediate Algebra (4)
(replaces MATH-420; first offered in Spring 2009)
(Degree-applicable)
Hours: 64-72 lecture.
Grading: Letter grade only.
Prerequisite: Eligibility for Mathematics 425 as determined by the Chaffey assessment process, or completion of Mathematics 410 or 411.
More advanced study of the following topics introduced in elementary algebra: factoring, algebraic fractions, equations and inequalities with rational expressions, exponents and radicals, quadratic equations, and equations with radicals. New topics include: absolute value equations and inequalities, quadratic inequalities, applications, graphing of elementary non-linear functions and conic sections, determining the equation of a line, solving nonlinear one-variable inequalities, complex numbers, composition and inverse of functions, solving linear systems by matrices and determinants, logarithmic and exponential expressions and equations, binomial theorem, summation notation, probability, and sequences and series.
1701.00

426 Re-Entry Review of Intermediate Algebra (2)
(Degree-applicable)
Hours: 32-36 lecture.
Grading: Pass/No Pass grade only.
Prerequisite: Mathematics 425.
Review of intermediate algebraic concepts including linear equations, inequalities and systems; absolute value equations and inequalities; factoring; rational expressions; exponential and radical expressions; quadratic equations and inequalities; graphing of functions; composition and inverse of functions; matrices and determinants; complex numbers; logarithmic and exponential expressions and equations; sequences and series; binomial theorem; and probability. Course is designed for students returning to mathematics after some absence, who need a comprehensive review of intermediate algebra before continuing with college algebra.
1701.00

504 Basic Operations of Arithmetic (4)
(Non-degree-applicable)
Hours: 48-54 lecture and 48-54 laboratory.
Grading: Letter grade only.
Prerequisite: Completion of the Chaffey assessment process.
Course is targeted to students needing competency in basic arithmetic operations. Topics include place value; rounding off; adding, subtracting, multiplying, and dividing whole numbers; perimeters, areas, and volumes; and introductory concepts of fractions.
4930.41

510 Arithmetic (4)
(Non-degree-applicable)
Hours: 56-63 lecture and 24-27 laboratory.
Grading: Letter grade only.
Prerequisite: Eligibility for Mathematics 510 as determined by the Chaffey assessment process.
Complete study of arithmetic, including operations and applications involving whole numbers, fractions, decimals, ratios, proportions, measurement, percents, and signed numbers. Seven hours of supplemental learning in a Success Center that supports this course is required, or other activities as recommended by instructor.
4930.41

520 Pre-Algebra (4)
(Non-degree-applicable)
Hours: 56-63 lecture and 24-27 laboratory.
Grading: Letter grade only.
Prerequisite: Eligibility for Mathematics 520 as determined by the Chaffey assessment process, or completion of Mathematics 510.
For students preparing for elementary algebra, who are competent in the basic operations of arithmetic, but need review of fractions, decimals, percents, and a preview of the elementary concepts of algebra. Topics include: rational number arithmetic, order of operations, Pythagorean theorem, variable expressions, solving linear equations, application problems, graphing linear equations, polynomial operations, and factoring using the Greatest Common Factor.
4930.41

521 Re-Entry Review of Arithmetic and Pre-Algebra (2)
(Non-degree-applicable)
Hours: 96-108 laboratory.
Grading: Letter grade only.
Prerequisite: Completion of the Chaffey assessment process, or completion of Mathematics 520.
Course is targeted to students needing a review of arithmetic and the introductory concepts of algebra before continuing with elementary algebra. Topics include: fractions, decimals, ratios, proportions, percents, signed numbers, numerical and variable expressions, and linear equations.
4930.41

592LA-H Special Topics: Basic Mathematics (.5-6)
(Non-degree-applicable)
Hours: 48-54 hours/term self-paced laboratory for each unit of credit.
Grading: Pass/No Pass grade only.
Special-interest laboratory course offering specializations in basic mathematics. Topics are determined by the individual instructor and cover a range of basic mathematics subjects/skills. Refer to the instructor syllabus and class schedule for current term emphasis and requirements. May be taken four times regardless of the unit combination, however, no single-subject, special-interest class may be repeated. May have a recommended preparation, or require prerequisites and/or corequisites, based on the content of the course.
4930.41

610 Preparation for the Study of Algebra (0)
(Non-credit)
Hours: 25-29 lecture.
Grading: Pass/No Pass grade only.
Mathematics review for students whose assessment results indicate placement into Arithmetic or Pre-Algebra, and who wish to re-acquire the skills needed to reassess into a higher level mathematics course. Course focuses on mastery of basic mathematics competencies including addition/ subtraction/ multiplication/division, rounding, order of operations, fractions, decimals, ratios, percent, graphing and solving linear equations, exponents and polynomials, roots and radicals.
4930.41

MULTIMEDIA

(SEE ART)

MUSIC

1 Fundamentals of Music (3) [Cx]
(CSU; UC credit limitations)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Concurrent enrollment in Music 51A. Introduction to developing at an elementary level the basics of sight singing, ear training, reading music, and simple chord structures. Designed for the general college student, the elementary education major, and as an introduction to musicianship. Recommended for the student starting in music with no scholastic music background. Concurrent enrollment in Beginning Piano helpful. Music 1 is not open to students who have credit for Music 3A and 3B.
1004.00

2A Music History and Literature (3) [Cx]
(CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Chronological survey of music in Western culture, encompassing the Medieval through Baroque periods. Origins of Western music up through the era of Johann Sebastian Bach and George Frideric Handel.
1004.00

2B Music History and Literature (3) [Cx]
(CSU; UC credit limitations)
Hours: 48-54 lecture.
Grading: Letter grade only.
Chronological survey of music in Western culture, from 1750 to the present. Explores the music of the great composers of the Classical, Romantic, and 20th century eras.
1004.00

3A Musicianship (4) [Cx]
(CSU; UC)
Hours: 64-72 lecture.
Grading: Letter grade only.
Corequisite for music majors and minors: Concurrent enrollment in Music 51A or 51B or satisfactory completion of a piano proficiency examination. Basic course for the music major and minor and an elective for the general college student who has the necessary prerequisites. Includes review of fundamentals of notation, structure of diatonic scales, intervals, chords, and study of basic forms. Ear training and development of skill in sight singing are emphasized.
1004.00
48  World Music (3)  (CSU; UC)
Hours: 48-72 lecture.
Grading: Letter grade only.
Music and music cultures around the world, focusing on their role(s) in those cultures. Extensive listening and musical vocabulary development to facilitate the discussion and interpretation of the music. Some performance expected.

51A,B  Beginning Class Piano (1-1)  (CSU; UC)
Hours: 32-36 studio.
Grading: Letter grade only.
Development of the ability to read simple piano scores in the classical literature. Development of a keyboard sense from the standpoint of touch and sound. Major and minor scales, the use of primary chords and their inversions in harmonizing melodies. Some key transposition.

52  Intermediate Piano (1)  (CSU; UC)
Hours: 32-36 studio.
Grading: Letter grade only.
Advisory: Completion of Music 51B.
Piano literature of second and third levels focusing on differences in historical styles. Extensive sight reading, performance of all major and minor scales, chords, and arpeggios. Some analysis and melodic harmonization. May be taken twice.

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62C Advanced Community Concert Band (1.5)  (CSU; UC)
Hours: 48-54 studio.
Grading: Letter grade only.
Prerequisite: Music 62B or acceptance via audition/performance for chair placement during the first week of class.
Course is designed for the advanced band student with a high level of instrumental ability. Open to students of flute, clarinet, saxophone, trumpet, trombone, baritone, tuba, oboe, bassoon, and percussion. Attendance at on-campus end of semester concert in the theater is required. May be taken four times. 1004.00

67 Latin Jazz Band (1.5)  (CSU; UC)
Hours: 48-54 studio.
Grading: Letter grade only.
Limitation on Enrollment: Nominal proficiency on one's musical instrument and the ability to read some music is required. Audition at the first class meeting.
Latin, Afro-Cuban, and Latin-Jazz ensemble music with an emphasis on performance. Open to instrumentalists, percussionists, and vocalists. Public performance may be required. May be taken four times. 1004.00

68 Mariachi Band (1.5)  (CSU; UC)
Hours: 48-54 studio.
Grading: Letter grade only.
Limitation on Enrollment: Nominal proficiency on one's musical instrument (including voice). Some music reading for instrumentalists (not including voice) desirable. Audition at the first class meeting.
Instrumental/vocal ensemble emphasizing Mariachi music and its various genres. Indigenous instruments are employed in the ensemble such as the guitarra, vihuela, guitar and jaracho harp as well as the violin, flute, and trumpet. Mandatory attendance at up to two public performances is required. Student must provide own transportation to all public performance venues. May be taken four times. 1004.00

70A Harmony and Intermediate Musicianship (3)  [Cx]  (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Corequisite: Music 52 or satisfactory completion of keyboard skill proficiency examination.
Advisory: Completion of Music 3B and 51B.
Principles of voice leading in diatonic harmony of the common practice period of classical music of the eighteenth and nineteenth centuries. Emphasis on diatonic voice leading for voicing root position triads and all inversions. Includes study of cadences, non-chord tones, and diatonic seventh chords. 1004.00

70B Harmony and Intermediate Musicianship (3)  (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Corequisite: Music 52.
Advisory: Completion of Music 70A.
Further study of the principles of voice leading in diatonic and chromatic harmony, in classical music of the eighteenth and nineteenth centuries. Begins with part-writing of diatonic seventh chords, and progresses to chromatic harmony for voicing secondary function chords. Emphasis on changing keys using diatonic common chords, sequence, common tone, monophonic, and direct modulation. Includes study of binary and ternary forms, and 12-bar blues. 1004.00

92A-H Special Topics: Music (1.5-6)  (CSU; UC credit limitations)
Hours: 16-18 hours/term lecture for each unit of credit.
Grading: Letter grade only.
Special-interest class of varying length, for students who wish to further develop specific areas of music performance and background. Topics determined by the instructor and cover a wide range of interests from listening to performance. May be taken four times regardless of the unit combination, however, no single-subject, special-interest class may be repeated. 1004.00

98A,B,C Independent Study: Music (1, 2, 3)  (CSU and UC credit limitations)
Grading: Letter grade only.
Limitation on Enrollment: Instructor signature is required for registration.
Special project course designed for the capable, well-motivated student. Each student explores and develops a project or a paper on an area of personal interest in music. Nature and extent of the project must be decided by student and instructor before the student may sign up for the course. Type and extent of the project determines the number of units allowed. May be taken only three times, regardless of the unit combination. 1004.00

501 Music Reading and Music Making (2)  (Non-degree-applicable)
Hours: 32-36 lecture.
Grading: Pass/No Pass grade only.
Introduction to reading music, music dictation, and sight-singing. Practical experience in performing melodies and rhythms. For beginning instrumental and vocal students, and anyone who wants to learn more about music. Recommended as preparation for music theory. May be taken four times. 1004.00

420 Acute Care Technician Laboratory (2)  (Degree-applicable)
Grading: Letter grade only.
Corequisite: Nursing: Acute Care Technician 420.
Clinical application of the knowledge and skills required for the Certified Nursing Assistant (CNA) to function effectively in acute care settings. Under direct supervision student practice their communication techniques, and patient care skills as they relate to the seven bodily systems. Course is designed for CNAs wishing to qualify for work in hospital settings, and is required for students applying to the Chaffey Vocational Nursing program. 1230.30

450 Professional Development for the Acute Care Technician (1)  (Degree-applicable)
Grading: Letter grade only.
Limitation on Enrollment: Admission into the Nursing: Acute Care Technician program, and possession of an active California Certified Nursing Assistant (CNA) certificate or coordinator approval of advanced placement status.
Advisory: Basic computer skills are recommended. Further development of the interpersonal and professional skills needed by entry-level healthcare providers in hospital settings. Topics include: review of the healthcare workforce, career ladder, and employment opportunities; role of the Acute Care Technician in the nursing process; time management and organizational strategies; test anxiety and successful test-taking tactics; critical thinking skills applied to case studies, math exercises and role-play; and career professionalism issues. 1230.30

NURSING: ASSISTANT (NURAST)  Students must apply for admission into the Nursing Assistant program. See Programs of Study area for requirements.

Students enrolled in two corequisite-linked courses (i.e. Nursing Assistant 400 and 400L) will have the lower of the two grades earned assigned to both courses when either course grade is less than a “C” or “CR”.

400 Nursing Assistant (3.5)  [Cx]  (Degree-applicable)
Hours: 56-63 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Admission into the Nursing Assistant program.
Corequisite: Nursing Assistant 400L and 400.
Fundamental principles of basic nursing care necessary to meet the hygiene, comfort, and safety needs of clients, including the prevention, identification and reporting of suspected patient abuse. Focus on developing communication and effective interpersonal communication techniques and practice necessary for safe practice. Use of the body systems approach, with focus on the major body systems. Course is designed for CNAs wishing to qualify for work in hospital settings, and is required for students applying to the Chaffey Vocational Nursing program. 1230.30
NURSING: ASSOCIATE DEGREE (NURADN)

Students must apply for admission into the Nursing (A.D.N.) program. See the Programs of Study for information on entrance requirements.

Students enrolled in two corquisite-linked courses (i.e. Nursing A.D.N. 3 and 3L) will have the lower of the two grades earned assigned to both courses when either course grade is less than satisfactory. A minimum grade of "C" in the lecture course and "CR" in the lab course is required to advance in the Nursing A.D.N. program.

3 Transition in Nursing (1.5) [Cx] (CSU)

Hours: 24-27 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Admission to the Nursing A.D.N. program.
Corequisite: Nursing A.D.N. 3L.
Core curriculum of the Associate Degree in Nursing Program, including theories of Maslow and Erickson. Development of critical thinking skills. Utilization of the nursing process and therapeutic communications skills in client care.

25 Nursing Process II (3) [Cx] (CSU)

Hours: 48-54 lecture.
Grading: Letter grade only.
Prerequisite: Nursing A.D.N. 25L.
Nursing care of adults in the hospital environment. Use of the nursing process and critical thinking skills in medical/surgical units.

25L Nursing Process II Laboratory (3) [Cx] (CSU)

Hours: 144-162 laboratory.
Grading: Letter grade only.
Prerequisite: Nursing A.D.N. 25.
Nursing care of adults in the hospital environment. Use of the nursing process and critical thinking skills in medical/surgical units.

COU COURSE DESCRIPTIONS}

400L Nursing Assistant Laboratory (2) [Cx] (Degree-applicable)

Hours: 96-108 laboratory.
Grading: Pass/No Pass grade only.
Corequisite: Nursing Assistant 400 and 405.
Clinical application of the basic nursing care required to provide for the hygiene, comfort, and safety needs of clients in long-term health care settings. Focus on roles and responsibilities, knowledge of and adherence to federal and state regulations, demonstration of nursing skills, and practice in effective communications.

405 Nursing Assistant Skills Laboratory (.5) [Cx] (Degree-applicable)

Hours: 24-27 laboratory.
Grading: Pass/No Pass grade only.
Corequisite: Nursing Assistant 400 and 400L.
Demonstration and student practice of the forty core skills requiring mastery, in preparation for the state competency evaluation for the California Department of Health Services Certified Nurse Assistant (CNA) exam.

420 Home Health Aide (1.5) [Cx] (Degree-applicable)

Hours: 24-27 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Admission into the Nursing Assistant program.
Role of the home health aide in providing personal client care in assisted living and home care settings. Topics include: interpretation of medical and social needs of patients, preparation of nutritionally-appropriate meals, assistance with the administration of medication, provision of personal care and cleaning tasks in patient’s homes, and client care status reporting procedures. Course is based on model curriculum developed by the Department of Health Services.

Nursing Assistant (1) (Degree-applicable)

Hours: 16-18 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Admission into the Nursing Assistant program.
Advisory: Basic computer skills are recommended. Development of the interpersonal and professional skills needed by entry-level healthcare providers joining the workforce. Topics include: overview of the healthcare workforce and career ladder, the role of the CNA in the nursing process, critical thinking skills, employment opportunities, résumé preparation, and job interview techniques.

492A-H Special Topics: Nursing Assistant (.5-6) (Degree-applicable)

Hours: 16-18 hours/term lecture for each unit of credit.
Grading: Letter grade only.
Limitation on Enrollment: Admission into the Nursing Assistant program.
Selected special topics in the Nursing Assistant field, designed to augment the program curriculum or provide additional assistance to enrolled students. May be taken up to four times, for a maximum of 12 units, in any unit combination. No single-subject special interest class may be repeated.

492LA-H Special Topics Laboratory: Nursing Assistant (.5-6) (Degree-applicable)

Hours: 48-54 hours/term laboratory for each unit of credit.
Grading: Letter grade only.
Limitation on Enrollment: Admission into the Nursing Assistant program.
Selected laboratory experience in the Nursing Assistant field, designed to augment the program curriculum or provide enrolled students with additional practice in clinical nursing skills. May be taken up to four times, for a maximum of 12 units, in any unit combination. No single-subject special interest class may be repeated.

6 Clinical Nursing Skills (1.5) [Cx] (CSU)

Hours: 72-81 laboratory.
Grading: Letter grade only.
Limitation on Enrollment: Admission to the Nursing A.D.N. program.
Development of the essential components of client care, enabling the practice of safe and effective nursing.

12 Nursing Process I (3) [Cx] (CSU)

Hours: 48-54 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Admission into the Nursing A.D.N. Program
Corequisite: Nursing A.D.N. 12L.
Utilization of the nursing process in providing basic care for adult and geriatric clients and their families. Development of beginning client-centered communication, interpersonal relationships, and critical thinking skills.

12L Nursing Process I Laboratory (3.5) [Cx] (CSU)

Hours: 168-189 laboratory.
Grading: Pass/No Pass grade only.
Corequisite: Nursing A.D.N. 12.
Clinical application of the nursing process in providing basic care for adult and geriatric clients and their families. Application of beginning client-centered communication, interpersonal relationships, and critical thinking skills. Clinical application at long-term care and medical-surgical facilities.

13 Mental Health and Psychiatric Nursing (2) [Cx] (CSU)

Hours: 32-36 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Admission into the Nursing A.D.N. Program.
Corequisite: Nursing A.D.N. 13L.
Mental health and psychiatric illness across the life span. Application of client-centered communication and critical thinking skills.

13L Mental Health and Psychiatric Nursing Laboratory (1) [Cx] (CSU)

Hours: 48-54 laboratory.
Grading: Pass/No Pass grade only.
Corequisite: Nursing A.D.N. 13.
Clinical application of psychiatric nursing. Performance of client-centered communication and critical thinking skills at psychiatric and community health facilities.

25 Nursing Process II (3) [Cx] (CSU)

Hours: 48-54 lecture.
Grading: Letter grade only.
Prerequisite: Nursing A.D.N. 12.
Corequisite: Nursing A.D.N. 25L.
Nursing care of adults in the hospital environment. Use of the nursing process and critical thinking skills in medical/surgical units.

25L Nursing Process II Laboratory (3) [Cx] (CSU)

Hours: 144-162 laboratory.
Grading: Pass/No Pass grade only.
Prerequisite: Nursing A.D.N. 12.
Corequisite: Nursing A.D.N. 25.
Nursing care of adults in the hospital environment. Use of the nursing process and critical thinking skills in medical/surgical units.
26  Maternal-Newborn Nursing (2) [Cx]
(CSU) Hours: 32-36 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Admission into the Nursing A.D.N Program.
Corequisite: Nursing A.D.N 26L.
Clinical application of maternal-newborn concepts in ambulatory, hospital, and home care settings. 1230.10

26L Maternal-Newborn Nursing Laboratory (1.5) [Cx]
(CSU) Hours: 72-81 laboratory.
Grading: Pass/No Pass grade only.
Clinical application of maternal-newborn concepts in ambulatory, hospital, and community settings. 1230.10

33 Nursing Process III (4) [Cx]
(CSU) Hours: 64-72 lecture.
Grading: Letter grade only.
Limitation of Enrollment: Admission into the Nursing A.D.N Program.
Corequisite: Nursing A.D.N 33L.
Utilization of the nursing process and management of care for the gerontological, acute, and chronically ill individuals/family. 1230.10

33L Nursing Process III Laboratory (4) [Cx]
(CSU) Hours: 192-216 laboratory.
Grading: Pass/No Pass grade only.
Corequisite: Nursing A.D.N 33.
Management of care for the gerontological, acute, and chronically ill individuals/family at medical surgical and ambulatory care settings. 1230.10

34 Nursing Process IV (4) [Cx]
(replaces Nursing A.D.N. 34)
(CSU) Hours: 64-72 lecture.
Grading: Letter grade only.
Prerequisite: Nursing A.D.N. 25
Corequisite: Nursing A.D.N 34L.
Utilization of the nursing process and management of care for the gerontological, acute, and chronically ill individuals/family. 1230.10

34L Nursing Process IV Laboratory (3) [Cx]
(replaces Nursing A.D.N. 33L)
(CSU) Hours: 144-162.
Grading: Pass/No Pass grade only.
Corequisite: Nursing A.D.N 34.
Management of care for the gerontological, acute, and chronically ill individuals and their families. 1230.10

38 Family-Child Nursing (2) [Cx]
(CSU) Hours: 32-36 lecture.
Grading: Letter grade only.
Limitation of Enrollment: Admission into the Nursing A.D.N Program.
Corequisite: Nursing A.D.N 38L.
Nursing care of infants, children, and adolescents. Use of the nursing process and critical thinking skills in pediatric units and selected community agencies. 1230.10

38L Family-Child Nursing (1.5) [Cx]
(CSU) Hours: 72-81 laboratory.
Grading: Pass/No Pass grade only.
Corequisite: Nursing A.D.N 38.
Clinical application in the nursing care of infants, children, and adolescents in ambulatory, hospital, and community settings. 1230.10

44 Nursing Process IV Laboratory (5) [Cx]
(CSU) Hours: 240-270 laboratory.
Grading: Pass/No Pass grade only.
Corequisite: Nursing A.D.N 44L.
Clinical application in the nursing management of critically ill clients, family, and groups of clients in high acuity medical surgical and community health settings. 1230.10

44L Nursing Process IV Laboratory (5) [Cx]
(Degree-applicable) Hours: 240-270 laboratory.
Grading: Letter grade only.
Corequisite: Nursing A.D.N 44.
Clinical application in the nursing management of critically ill clients, family, and groups of clients in high acuity medical surgical and community health settings. 1230.10

50 Professional Issues in Nursing (1) [Cx]
(CSU) Hours: 16-18 lecture.
Grading: Letter grade only.
Limitation of Enrollment: Admission into the Nursing A.D.N Program.
Corequisite: Nursing A.D.N 45L.
A.D.N Program.
Corequisite: Nursing A.D.N 45.
Historical contributions, ethics, current healthcare delivery systems, quality assurance, expanded role of the nurse, political action, continuing education, and health care reform. 1230.10

92A-H Special Topics: Nursing (.5-6)
(CSU) Hours: 16-18 hours/term for each unit of credit.
Grading: Letter grade only.
Limitation of Enrollment: Admission into the Nursing A.D.N Program.
Corequisite: Nursing A.D.N 45.
Individualized courses designed to assist the student in nursing and related fields of study. May be taken up to four times regardless of unit combination. However, no single-subject, special-interest class may be repeated. 1230.10

92A-H Special Topics: Nursing (.5-6)
(CSU) Hours: 48-54 hours/term laboratory for each unit of credit.
Grading: Letter grade only.
Limitation of Enrollment: Admission into the Nursing A.D.N Program.
Corequisite: Nursing A.D.N 45.
Individualized courses designed to assist the student to demonstrate proficiency in clinical nursing skills. May be taken up to four times regardless of unit combination. However, no single-subject, special-interest class may be repeated. 1230.10

96A, B, C, D Cooperative Education: Nursing A.D.N. (1, 2, 3, or 4)
(CSU credit limitations) Hours: 75 hours/term paid on-site work experience for each unit of credit.
Grading: Letter grade only.
Limitation on Enrollment: Completion of at least one semester of the Nursing A.D.N. program in good standing. Both student and work experience must meet the California Board of Registered Nursing work experience education regulations. Students must also meet the following state concurrent enrollment requirement: In the Fall and Spring terms, students taking this work experience course must be enrolled in a total of seven units or more, including this course. In the Summer term, students must be enrolled in at least one other course in addition to this one. Coursework at any accredited high school or college may be used to meet this requirement.
Work experience in cooperation with clinical agencies. Provides expanded learning opportunities directly related to the student’s clinical experience. May be taken five times for a maximum of 16 units. 1230.10

483 Pathophysiology for Nursing (3) [Cx]
(Degree-applicable) Hours: 48-54 lecture.
Grading: Letter grade only.
Limitation of Enrollment: Admission into a nursing (A.D.N. or V.N.) program or equivalent.
Advisory: Completion of Biology 22.
Mechanisms of disease processes, the resultant structural and functional changes, and the effects of these dysfunctional changes on the body as they relate to nursing practice. The use of the Nursing Process to prevention, evaluation and treatment of disease outcomes comes within the scope of nursing practice. 1230.10

412 Thinking Strategies for Nursing Practice (2) [Cx]
(Degree-applicable) Hours: 32-38 lecture.
Grading: Letter grade only.
Advisory: Concurrent enrollment in Nursing A.D.N. 12L.
Increase effectiveness in clinical decision-making. Application of thinking strategies in the healthcare setting. 1230.10

422 Priority Setting and Decision-Making Strategies (2) [Cx]
(Degree-applicable) Hours: 32-36 lecture.
Grading: Letter grade only.
Advisory: Concurrent enrollment in Nursing A.D.N. 22L.
Designed for intermediate nursing students to enhance prioritizing and clinical decision making skills. 1230.10

433 Clinical Problem Solving (2) [Cx]
(Degree-applicable) Hours: 32-36 lecture.
Grading: Letter grade only.
Advisory: Concurrent enrollment in Nursing A.D.N. 33L.
Development of thinking strategies used in clinical practice, focusing on assessing and analyzing complex nursing situations in various settings. 1230.10

443 Advanced Clinical Problem Solving (2) [Cx]
(Degree-applicable) Hours: 32-36 lecture.
Grading: Letter grade only.
Advisory: Concurrent enrollment in Nursing A.D.N. 43L.
Develop the creative critical thinking strategies essential in clinical practice. Learn to recognize patterns, set priorities, generate hypotheses, make predictions, and evaluate outcomes. Assess and analyze increasingly complex nursing situations, some involving legal and ethical dilemmas, in various settings. 1230.10

470 Nursing Seminar (1)
(Degree-applicable) Hours: 16-18 lecture.
Grading: Letter grade only.
Professional issues related to nursing student’s work experience. May be taken four times. 1230.10
NURSING: VOCATIONAL
(NURV)

Students must apply for admission into the Vocational Nursing programs. See the Programs of Study for information on entrance requirements.

Students enrolled in two corequisite-linked courses (i.e. Nursing: Vocational 402 and 402L) will have the lower of the two grades earned assigned to both courses when either course grade is less than a satisfactory. A minimum grade of “C” in the lecture course and “CR” in the lab course is required to advance in the Vocational Nursing program.

401 Foundations of Vocational Nursing Practice (2)
(Degree-applicable)
Hours: 52-56 lecture.
Grading: Letter grade only.
Advisory: Placement at the Reading Proficient level as determined by the Chaffey assessment process or completion of Reading 405, and eligibility for MATH-410 as determined by the Chaffey assessment process or completion of Mathematics 520 or 521.
Examination of the health care delivery system and the role of the vocational nurse as a member of the health care team. Discussion of the history of nursing and the ethical and legal responsibilities of the vocational nurse. Introduction of the nursing process as a critical thinking tool. Examination of the impact of cultural diversity on vocational nursing practice. Introduction to the policies and expectations of the vocational nursing program and an exploration of strategies for successful program completion.

403 Fundamentals of Nursing (3) [Cx]
(Degree-applicable)
Hours: 57 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Acceptance into the Vocational Nursing program.
Corequisite: Nursing: Vocational 403L.
Fundamental principles and techniques necessary for the beginning vocational nursing student to provide basic nursing care to patients. Leadership focus on the VN role, responsibilities, and skills in extended-care and home clinical settings. Students select and use appropriate components of the nursing process and Maslow’s Hierarchy of Needs to promote health, hygiene, nutrition, rest/sleep, safety, relief of pain, and meet the mobility, bowel/bladder, respiratory, sexual, spiritual, psychosocial, and self-esteem needs of adult and geriatric patients. Study of loss/grief concepts, health and disease, stress adaptation, and therapeutic communication styles is included. Includes twelve hours of related pharmacology content.

405 Beginning Medical-Surgical Nursing (4) [Cx]
(replaces Nursing: Vocational 404)
(Degree-applicable)
Hours: 72 lecture.
Grading: Letter grade only.
Prerequisite: Nursing: Vocational 403 and 403L.
Corequisite: Nursing: Vocational 405L.
Nursing care of adult patients in the hospital/clinical setting. Utilization of the nursing process as a framework for providing care to patients with musculoskeletal, genitourinary, integumentary, and gastrointestinal disorders. Includes twelve hours of related pharmacology content.

406L Advanced Medical-Surgical Nursing Laboratory (3)
(replaces Nursing: Vocational 406L)
(Degree-applicable)
Hours: 158 laboratory.
Grading: Pass/No Pass grade only.
Prerequisite: Nursing: Vocational 403 and 403L.
Corequisite: Nursing: Vocational 406.
Discussion, demonstration, and application of the nursing process and developmental theory to the care of adult patients with diseases and disorders of the musculoskeletal, genitourinary, integumentary, and gastrointestinal systems in the clinical setting.

407 Nursing Skills/Clinical Simulation Laboratory (1)
(Degree-applicable)
Hours: 54 laboratory.
Grading: Pass/No Pass grade only.
Limitation on Enrollment: Acceptance into the Vocational Nursing program.
Application of theoretical concepts to nursing skills performance in a skills laboratory setting. Participation in simulated clinical experiences using high-fidelity patient care simulators. May be taken three times.

408 Advanced Medical-Surgical Nursing 4 (8) [Cx]
(replacing by Nursing: Vocational 411)
(Degree-applicable)
Hours: 96-108 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Satisfactory completion of the fourth module of the Vocational Nursing (VN) program.
Corequisite: Nursing: Vocational 408L.
Concepts, principles, and advanced skills of the nursing process to meet the needs of patients with musculo-skeletal, neurological, urinary, reproductive, blood dyscrasias, and visual or auditory problems. Leadership focus on the skills required in assuming the role and responsibilities of charge nurse for a group of patients.

408L Advanced Medical-Surgical Nursing 4 Laboratory (3)
(replacing by Nursing: Vocational 411L)
(Degree-applicable)
Hours: 144-162 laboratory.
Grading: Pass/No Pass grade only.
Corequisite: Nursing: Vocational 408.
Discussion, demonstration, and application of developmental theory and the nursing process to meet the needs of patients in acute-care clinical situations. Students identify threats and care for the needs of patients with musculo-skeletal, neurological, urinary, reproductive, blood dyscrasias, and visual or auditory problems, with minimal observation and supervision by an instructor and facility staff. Primary focus is the integration and prioritization of all components of the nursing process in the care of adult surgical patients, in the role of charge nurse.

409 Intermediate Medical Surgical Nursing (4) [Cx]
(replaces Nursing: Vocational 406A and 406B)
(Degree-applicable)
Hours: 72 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Acceptance into the Vocational Nursing program, and successful completion of the first semester VN curriculum or equivalent.
Prerequisite: Nursing: Vocational 405 and 405L.
Corequisite: Nursing: Vocational 409L.
Discussion, demonstration, and application of the nursing process and developmental theory to the care of adult patients with diseases and disorders of the cardiac, respiratory, and endocrine systems. Includes 12 hours of related pharmacology content.

409L Intermediate Medical Surgical Nursing Laboratory (3)
(replaces Nursing: Vocational 406AL and 406BL)
(Degree-applicable)
Hours: 158 laboratory.
Grading: Pass/No Pass grade only.
Limitation on Enrollment: Acceptance into the Vocational Nursing program, and successful completion of the first semester VN curriculum or equivalent.
Prerequisite: Nursing: Vocational-405 and 405L.
Corequisite: Nursing: Vocational 409.
Nursing care of adult patients in the hospital/clinical setting. Utilization of the nursing process as a framework for providing care to patients with cardiac, respiratory, and endocrine disorders.

411 Advanced Medical-Surgical Nursing (7) [Cx]
(replaces Nursing: Vocational 408)
(Degree-applicable)
Hours: 126 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Acceptance into the Vocational Nursing program, and successful completion of the second semester VN curriculum or equivalent.
Prerequisite: Nursing: Vocational 409 and 409L.
Corequisite: Nursing: Vocational 411L.
Discussion, demonstration, and application of the nursing process and developmental theory to the care of adult patients with diseases and disorders of the reproductive, hematologic and immune systems. Emergency nursing and care of the patient with cancer is also emphasized. Includes 12 hours of related pharmacology content.

411L Advanced Medical-Surgical Nursing Laboratory (3)
(replaces Nursing: Vocational 408L)
(Degree-applicable)
Hours: 162 laboratory.
Grading: Pass/No Pass grade only.
Limitation on Enrollment: Acceptance into the Vocational Nursing program, and successful completion of the second semester VN curriculum or equivalent.
Prerequisite: Nursing: Vocational 409 and 409L.
Corequisite: Nursing: Vocational 411.
Nursing care of adult patients in the hospital/clinical setting. Utilization of the nursing process as a framework for providing care to patients with reproductive, hematologic and immunologic disorders. Care of the patient with cancer, and of patients with emergency and traumatic disorders is also emphasized.
413 Leadership for the Vocational Nurse (3) [Cx]  
(Degree-applicable)  
Hours: 54 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Acceptance into the Vocational Nursing program, and successful completion of the second semester VN curriculum or equivalent.  
Corequisite: Nursing: Vocational 413L.  
Leadership skills, capabilities, and knowledge essential to the vocational nurse including roles and responsibilities, application of the nursing process to problem solving methods, and supervision and evaluation of the effectiveness and quality of care. Managerial traits, styles, roles, and models are explored.  
1230.20

413L Leadership for the Vocational Nurse Laboratory (2)  
(replaces Nursing: Vocational 439)  
(Degree-applicable)  
Hours: 108 laboratory.  
Grading: Pass/No Pass grade only.  
Limitation on Enrollment: Acceptance into the Vocational Nursing program, and successful completion of the second semester VN curriculum or equivalent.  
Corequisite: Nursing: Vocational 413L.  
Clinical application of leadership skills, capabilities, and knowledge essential to the vocational nurse including roles and responsibilities, application of the nursing process to problem solving methods, and supervision and evaluation of the effectiveness and quality of care.  
1230.20

415A Growth/Development: Psychology Adult-Geriatric (1) [Cx]  
(Degree-applicable)  
Hours: 18 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Acceptance into the Vocational Nursing program.  
Stages of growth and development, behavior, and characteristics of the adult and elderly. Influences of and differences between the theories of Freud, Erikson, Piaget, Kohlberg, and Maslow. Theories and perspectives of mental health nursing.  
1230.20

415B Growth and Development of the Child (1) [Cx]  
(replaces Nursing: Vocational 420B)  
(Degree-applicable)  
Hours: 16 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Acceptance into the Vocational Nursing program, and successful completion of the first semester of the VN curriculum or equivalent.  
Prerequisite: Nursing: Vocational 415A.  
Stages of growth and development, behavior, and characteristics of the child. Influences of and differences between the theories of Freud, Erikson, Piaget, Kohlberg, and Maslow. Theories and perspectives of mental health nursing as it relates to the care of children and adolescents.  
1230.20

417B Critical Thinking and the Nursing Process II (1) [Cx]  
(Degree-applicable)  
Hours: 18 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Acceptance into the Vocational Nursing program, and successful completion of the first semester VN curriculum or equivalent.  
Prerequisite: Nursing: Vocational 417A.  
Application of advanced critical thinking skills in the health care setting. Advanced concepts in the development of a plan of care and in clinical decision-making.  
1230.20

421 Maternal and Child Health Nursing (4) [Cx]  
(replaces Nursing: Vocational 434 and 436)  
(Degree-applicable)  
Hours: 72 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Acceptance into the Vocational Nursing program, and successful completion of the first semester of the VN curriculum or equivalent.  
Corequisite: Nursing: Vocational 421L.  
Nursing care of mothers, newborns, and children in both health and illness, using Maslow's theory of human needs to guide the plan of care.  
1230.20

421L Maternal and Child Health Nursing Lab (2)  
(replaces Nursing: Vocational 421L and 436L)  
(Degree-applicable)  
Hours: 48-54 laboratory.  
Grading: Pass/No Pass grade only.  
Clinical instruction in a maternity unit or affiliate area, focusing on the care of the newborn, growth and development, and nutritional needs of infants and the nursing mother.  
1230.20

429B Growth/Development: Psychology infancy - Young Adult (1) [Cx]  
(replaces Nursing: Vocational 415B)  
(Degree-applicable)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Satisfactory completion of two semesters of the Vocational Nursing (VN) program is required.  
Corequisite: Nursing: Vocational 429A.  
1230.20

434 Pediatric Nursing (1.5) [Cx]  
(replaced by Nursing: Vocational 421)  
(Degree-applicable)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Satisfactory completion of the first semester of the Vocational Nursing (VN) program is required.  
Corequisite: Nursing: Vocational 434L.  
Maslow's theory of human needs and nursing process components guides the plan of care for children. Focus is on the identification of needs and problems of children, infants through adolescents, in both health and illness.  
1230.20

434L Pediatric Nursing Laboratory (1)  
(replaced by Nursing: Vocational 421L)  
(Degree-applicable)  
Hours: 48-54 laboratory.  
Grading: Pass/No Pass grade only.  
Corequisite: Nursing: Vocational 434.  
Clinical instruction in a pediatric unit or affiliate area, under the direction and supervision of an instructor. Application of the nursing process, needs, and developmental theories to pediatric patient care.  
1230.20

436 Maternity Nursing Laboratory (1.5) [Cx]  
(Degree-applicable)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Satisfactory completion of the first semester of the Vocational Nursing (VN) program is required.  
Corequisite: Nursing: Vocational 436L.  
Maslow's theory of human needs and nursing process components guide the assessment and plan of maternity care. Conception through postpartum. Focus is on the identification of needs of the newborn and the family, including postpartum complications, characteristics of pre-term, normal, and post-term infants, common disorders of the newborn, growth and development, and nutritional needs of infants and the nursing mother.  
1230.20

436L Maternity Nursing Laboratory (1)  
(Degree-applicable)  
Hours: 48-54 laboratory.  
Grading: Pass/No Pass grade only.  
Clinical instruction in a maternity unit or affiliate area, under the direction and supervision of an instructor. Application of the nursing process, needs, and developmental theories to maternal-child care.  
1230.20

439 Leadership and Supervision for the Vocational Nurse (1) [Cx]  
(Degree-applicable)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Satisfactory completion of two semesters of the Vocational Nursing (VN) program is required.  
Corequisite: Nursing: Vocational 439A.  
Leadership skills, capabilities, and knowledge essential to the Vocational Charge Nurse, to include: roles and responsibilities, application of the nursing process to problem solving methods, conducting a patient care conference, shift reports, effective and assertive communication skills, organization and scheduling of patient care, and supervision and evaluation of the effectiveness and quality of the provided care. Managerial traits, styles, roles, and models.  
1230.20

492LA-H Special Topics Laboratory: Vocational Nursing (.5-6)  
(Degree-applicable)  
Hours: 48-54 hours/term self-paced laboratory for each unit of credit.  
Grading: Pass/No Pass grade only.  
Individualized self-paced course designed to assist the student to participate in specialized programs or projects.  
1230.20
500 NCLEX Review for VN Licensure Examination (2)  
(Non-degree-applicable)  
Hours: 32-36 lecture.  
Grading: Pass/No Pass grade only.  
Limitation on Enrollment: Proof of completion of an accredited vocational nursing program within the past 5 years, or completion of licensure application packets and 54 hours of pharmacology, or eligibility for licensure through work experience or education is required.  
Overview of common diseases with treatment modalities using the nursing process. Review of over 300 questions with rationale for answers. Test taking techniques and preparation for the computerized NCLEX examination. Taking this course does not guarantee passing of the NCLEX examination. May be taken three times.  
1230.60

NUTRITION AND FOOD (NF)  
(ALSO SEE CONSUMER STUDIES)  
Students enrolled in two corequisite-linked courses that consist of one lecture and one lab course (i.e. Nutrition and Food 470 and 470L) will receive the lower of the two grades earned in these courses, for both courses, when either course grade is less than satisfactory. A minimum grade of "C" in both the lecture and laboratory courses is required for successful completion.

5 Nutrition for Life (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Essentials of nutrition as they relate to diet, health and disease, risk-reduction, stress, and nutritional deficiencies. Topics include: developments and discoveries in the field of nutrition, nutrients essential for human health, disease consequence and prevention, eating disorders, obesity, dieting, nutritional fads and fallacies, vitamins and supplements, and changing nutritional needs across the lifespan. Use of sound consumer nutritional information in the development of an individual health plan.  
1301.00

11 Food Service Management Supervision (3) (Cx)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Nutrition and Food 470.  
Aspects of food service management supervision. Role of the supervisor/manager in developing personnel programs and establishing workable labor-management relationships. Additional topics include: job descriptions, hiring practices, training procedures, advancement programs, and delegation of responsibility.  
1307.10

15 Nutrition I: The Science of Nutrition (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Introduction to the science of nutrition and its implications for human health. Topics include: essential macro- and micro-nutrients, basic dietary guidelines, evaluation of published nutritional information, and changing nutritional needs throughout the lifecycle.  
1306.00

19 Nutrition II: Modified Diets (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Nutrition and Food 5 or 15.  
Advisory: Concurrent enrollment in Nutrition and Food 470.  
The study of therapeutic diets and the principles of nutrition as related to special physical conditions. Screening and assessment techniques used by health care professionals.  
1306.00

21 Diet and Fitness (3)  
(Also available as Physical Education Lecture 15)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
A lifestyle approach to fitness including the study of nutrition, disease prevention, increased cardiovascular endurance, weight control, increased strength and flexibility, stress management, and considerations of aging on the body.  
1301.00

25 Culture and Nutrition (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Exploration of cultural, religious, and lifestyle characteristics that impact nutrition choices. Topics include: human nutritional needs, food myths, cultural taboos, religious beliefs, social and environmental influences on unique cuisines and eating customs, controversies surrounding use of biotechnology in food production, politics and food availability, and the history and health effects of under-nutrition in world populations.  
1306.00

27 Healthy Cooking (2)  
(CSU)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Techniques of planning and preparing nutritious foods, incorporating lower levels of fat, cholesterol, and sodium into meals. Emphasis is on healthy food selection as a lifestyle.  
1301.00

421 Nutrition III: Nutrition Care (2)  
(Degree-applicable)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Prerequisite: Nutrition and Food 15 and 19.  
Introduction to the work of the Dietetic Technician and the attendant responsibilities as a member of the nutrition care component of the health care team. Topics include: techniques of communication, evaluation of nutrition histories, progress reports, and counseling.  
1306.00

423 Nutrition IV: Advanced Nutrition Care (2)  
(Degree-applicable)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Nutrition and Food 15, 19, and 421.  
1306.00

470 Dietetic Service Supervisor: Supervised Clinical Laboratory (1)  
(Degree-applicable)  
Hours: 48-54 laboratory.  
Grading: Letter grade only.  
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required. Corequisite: Nutrition and Food 470, and a minimum of four additional units of Nutrition and Food curriculum.  
Practical experience in practice and live clinical situations. Application of dietetic principles and practices, communication skills, record keeping, patient/client screening and assessment, adherence to Federal and State regulations, and essential management functions. May be taken four times.  
1306.20

480 Dietetic Technician Seminar (2)  
(Degree-applicable)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required. Corequisite: Nutrition and Food 470 (may be taken previously), and Nutrition and Food 480L plus a minimum of four additional units in Nutrition and Food curriculum (must be taken concurrently).  
Roles and responsibilities of the dietetic technician in the professional health care setting. Topics include: nutritional screening and assessment, charting and vocabulary, safety and sanitation standards, menu planning, purchasing, food production management, modified diets, health care management, supervision, and training. Sociocultural factors and individual differences of clients/patients/resident population are considered. Course meets the Commission and Accreditation of Dietetic Education (CADE) requirements, and (with the corequisite course) helps prepare students to take the externally administered national registration exam of the American Dietetic Association. May be taken three times.  
1306.60

480L Dietetic Technician: Supervised Clinical Laboratory (2)  
(Degree-applicable)  
Hours: 96-108 laboratory.  
Grading: Letter grade only.  
Limitation on Enrollment: Proof of a negative tuberculosis test within the past 12 months is required. Corequisite: Nutrition and Food 470 (may be taken previously), and Nutrition and Food 480L plus a minimum of four additional units in Nutrition and Food curriculum (must be taken concurrently).  
Practical experience in clinical situations. Topics include: menu planning, purchasing, and food production controls; management functions; training techniques; nutritional screening and assessment; utilization of dietetic technology; application of federal and state regulations; patient/client referrals; communication strategies; and professional development. Course meets the Commission and Accreditation of Dietetic Education (CADE) requirements, and (with the corequisite course) helps prepare students to take the externally administered national registration exam of the American Dietetic Association. May be taken four times.  
1306.60

Supervisory and management roles in the professional health care setting. Topics include: nutritional screening, nutritional status assessment of patients/clients with varying medical conditions, menu planning, purchasing, food production management, modified diets, health care management, supervision, and training. Sociocultural factors and individual differences of clients/patients/resident population are considered. May be taken three times.  
1306.20
PHARMACY TECHNICIAN (PHARM)

Students enrolled in two corequisite-linked courses consisting of one lecture and one lab course (i.e., Pharmacy Technician 420 and 420L), will receive the lower of the two grades earned in these courses, for both courses, when either course grade is less than satisfactory. Minimum grades of “C” in both the lecture the lab components are required to advance in the Pharmacy Technician program.

400 Introduction to Pharmacy Technology (2) (Degree-applicable)
Hours: 32-36 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Student must attend a mandatory program orientation.
Duties and responsibilities of a pharmacy technician. Topics include: basic medical and pharmaceutical terminology, professional ethics, legal requirements, employer expectations, effective communication skills, an orientation to pharmacology, and the requirements for state licensure.
1221.00

401 Pharmacology of the Body Systems I (3) (Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Student must attend a mandatory program orientation.
Fundamentals of pharmacology, and the use and side effects of prescription medications, nonprescription medications, and alternative therapies (e.g., herbal products, dietary supplements, homeopathy, and lifestyle modification) commonly used to treat diseases affecting human integumentary, endocrine, gastrointestinal, and nervous systems. Pharmacology of antibiotics, antivirals, and antifungals. Introduces the related medical terms and standard abbreviations used in pharmacy practice.
1221.00

402 Pharmacology of the Body Systems II (3) (Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Student must attend a mandatory program orientation.
Fundamentals of pharmacology and the use and side effects of prescription medications, nonprescription medications, and alternative therapies (e.g., herbal products, dietary supplements, homeopathy, and lifestyle modification) commonly used to treat diseases affecting human musculoskeletal, respiratory, genitourinary, cardiovascular, and the special senses. Introduces the related medical terms and standard abbreviations used in pharmacy practice.
1221.00

405 Sterile Products (2) (Degree-applicable)
Hours: 32-36 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Student must attend a mandatory program orientation.
Basic concepts of aseptic techniques as they apply to the pharmacy technician. Focus on the use of laminar flow hoods and the proper handling and disposal of needles, syringes, and other supplies used in the preparation/compounding of sterile pharmacy products. Properties of antisepsics and antimicrobials used in maintenance of pharmacy equipment. Quality assurance processes and applicable governing laws, regulations, and standards, including <USP797>.
1221.00

415 Pharmaceutical Calculations (2) (Degree-applicable)
Hours: 32-36 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Admission to the Pharmacy Technician program.
Prerequisite: Eligibility for Math 410 as determined by the Chaffey assessment process, or completion of Math 520 or 521.
Basic and advanced calculations used in pharmacies. Practical application of metric, apothecary, avoirdupois, and household systems of measurements, including percent solution, allegations, reduction and enlargement of formulas, and ratio strength. Conversions between systems of pharmacy measurements; calculation of oral dosages for adult and pediatric patients, and calculations unique to intravenous medications. Preparation of outpatient and inpatient prescription orders using appropriate pharmacy calculations.
1221.00

420 Community Pharmacy Operations (3) (Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Admission to the Pharmacy Technician program.
Corequisite: Pharmacy Technician 420L.
Duties and responsibilities of the pharmacy technician working in an ambulatory setting. Emphasized topics include: inventory receipt and control; prescription and medication orders screening; computerized prescription processing; medical insurance payment procedures; patient information confidentiality and relevant regulatory, legal, and ethical issues; temporal and spatial compounding principles; over-the-counter drug indications and contraindications, and effective customer relations.
1221.00

420L Community Pharmacy Operations Laboratory (0.5) (Degree-applicable)
Hours: 24-27 laboratory.
Grading: Letter grade only.
Corequisite: Pharmacy Technician 420.
Application and practice of the knowledge, concepts, and skills acquired in the corequisite course that are needed to operate effectively in an institutional setting.
1221.00

430 Institutional Pharmacy Operations (3) (Degree-applicable)
Hours: 48-54 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Admission to the Pharmacy Technician program.
Corequisite: Pharmacy Technician 430L.
Duties and responsibilities of the pharmacy technician working in an institutional setting. Emphasized topics include: aseptic technique; use and maintenance of laminar flow hoods; IV admixture and Total Parenteral Nutrition preparation; materials management; inpatient oral medication distribution systems; institutional organization and function; and relevant legal and ethical issues. Students develop the knowledge and skills required to work with pharmacists, other clinical staff, and patients.
1221.00

430L Institutional Pharmacy Operations Laboratory (0.5) (Degree-applicable)
Hours: 24-27 laboratory.
Grading: Letter grade only.
Corequisite: Pharmacy Technician 430.
Application and practice of the knowledge, concepts, and skills acquired in the corequisite course that are needed to operate effectively in an institutional setting.
1221.00

482 Clinical Externship (4) (Degree-applicable)
Hours: 240 hours unpaid on-site work experience.
Grading: Letter grade only.
Limitation on Enrollment: Concurrent enrollment requirement. In the Fall and Spring terms, students taking this work experience course must be enrolled in a total of seven units or more, including this course. In the Summer term, students must be enrolled in at least one other course in addition to this one. Coursework at any accredited high school or college may be used to meet this requirement.
Prerequisite: Pharmacy Technician 420, 420L, 430, and 430L.
Work experience in cooperation with local institutional (hospital, long-term care facility, etc.) and community (retail, chain drugstores, etc.) pharmacies. Students apply knowledge and skills through unpaid employment, solidifying knowledge and expanding capabilities acquired in classroom and clinical experiences. Placement is by the instructor.
1221.00

482A-H Special Topics: Pharmacy Technician (.5-6) (Degree-applicable)
Hours: 16-18 hours/term lecture for each unit of credit.
Grading: Letter grade only.
Limitation on Enrollment: Admission to the Pharmacy Technician program.
Selected special topics in the Pharmacy Technician field, designed to augment the program curriculum or provide additional assistance to enrolled students. May be taken up to four times, for a maximum of 12 units, in any unit combination. No single-subject special interest class may be repeated.
1221.00

482LA-H Special Topics Laboratory: Pharmacy Technician (.5-6) (Degree-applicable)
Hours: 48-54 hours/term laboratory for each unit of credit.
Grading: Letter grade only.
Limitation on Enrollment: Admission to the Pharmacy Technician program.
Selected laboratory experience in the Pharmacy Technician field, designed to augment the program curriculum or provide additional assistance to enrolled students. May be taken up to four times, for a maximum of 12 units, in any unit combination. No single-subject special interest class may be repeated.
PHILOSOPHY (PHIL)

70 Introduction to Philosophy (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Eligibility for English 1A as determined by the Chaffey assessment process, or completion of English 450 or English as a Second Language 450.
Introductory study of some fundamental philosophic problems emphasizing the nature and problems of knowledge (epistemology) and some of humanity’s world views (metaphysics). 1509.00

72 Seminar in Ethics (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Eligibility for English 1A as determined by the Chaffey assessment process, or completing English 450 or English as a Second Language 450.
Seminar for the study of ethics with emphasis on personal, social, and political values. May be offered as an Honors course. 1509.00

73 Seminar in Contemporary American Philosophy (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of Philosophy 70 and eligibility for English 1A as determined by the Chaffey assessment process or completion of English 450 or English as a Second Language 450.
The role of philosophies in the creation of and solution to the problems we face in contemporary American society. Emphasis on leading American thinkers in the areas of aesthetics, political and social theory, scientific thought, religious philosophy, and ethics. 1509.00

75 Introduction to Symbolic Logic (3) (CSU; UC credit pending)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of English 1A and Philosophy 76.
An introduction to symbolic methods of reasoning, covering sentential logic and predicate logic. Students translate ordinary language sentences and arguments into symbolic form and evaluate symbolized arguments using Truth Tables, Truth Trees and Natural Deduction. 1509.00

76 Critical Thinking (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Completion of English 1A.
Explores the underlying structure of argument and the role of sound reasoning in the investigation of claims. An analysis of language, inductive and deductive reasoning, the difference between fact and judgment and belief from knowledge, and the identification of formal and informal fallacies. 1509.00

77 History of Philosophy: Ancient to Medieval (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Advisory: Eligibility for English 1A as determined by the Chaffey assessment process, or completion of English 450 or English as a Second Language 450.
A survey of many of the major figures and ideas of Western philosophy from Pre-Socratics to Descartes, including Plato, Aristotle, Augustine, Maimonides, Averroes, Aquinas, and others. 1509.00

PHOTOGRAPHY (PHOTO)

1 History of Photography (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
History and appreciation of photography as a medium of artistic and social communication. May be offered as an Honors course. 1011.00

7 Introduction to Digital Photography (4) (CSU; UC)
Hours: 48-54 lecture; 48-54 laboratory.
Grading: Letter grade only.
Introduction to the principles of digital photography. Emphasis on issues in photography in the context of art, mass media, and media history, using digital cameras, software such as Photoshop, and digital printing. Students must furnish an adjustable digital camera. 1012.00

9 Digital Imaging (4) (CSU; UC)
Hours: 48-54 lecture; 48-54 laboratory.
Grading: Letter grade only.
Introductory course using computer imaging applications in photography and digital arts that explores the creative potential of imaging software used by visual artists. Students establish familiarity with output devices, hardware, and software such as Adobe Photoshop. The creation of digital art is examined within the framework of current issues in art and culture. May be taken three times. 1012.00

10 Beginning Photography (4) (CSU; UC)
Hours: 48-54 lecture; 48-54 laboratory.
Grading: Letter grade only.
Introduction to the principles of traditional photography, emphasizing the role of cameras and photographic images in art, mass media, and media history. Instruction in the basic principles of black-and-white photography including darkroom experience. Students must furnish an adjustable non-digital camera. 1012.00

11 Intermediate Photography (4) (CSU; UC)
Hours: 48-54 lecture; 48-54 laboratory.
Grading: Letter grade only.
Prerequisite: Photography 10.
Continuation of the principles learned in Photography 10 with more advanced problems. Student must furnish an adjustable camera. May be taken three times. 1012.00

12 Studio Lighting (4) (CSU; UC)
Hours: 48-54 lecture; 48-54 laboratory.
Grading: Letter grade only.
Prerequisite: Photography 7 or 10.
Introduction to the use of studio equipment and lighting techniques. Topics include portrait, still life, advertising, and art photography. Students must furnish an adjustable camera. May be taken three times. 1012.00

13 Fine Art Photography (4) (CSU; UC)
Hours: 48-54 lecture; 48-54 laboratory.
Grading: Letter grade only.
Prerequisite: Photography 10.
Explores photography as an art form. Concerned with contemporary issues in fine art photography. Emphasis on students making photographic artwork. May be taken three times. 1012.00
20 Photography for Publications (4) [Cx]  
(CSU)  
Hours: 48-54 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Photography 7 or 10.  
Introduction to commercial publications and mediums that use photography to convey visual information, including photojournalism, sports, advertising, and editorial. Focus on the technical and aesthetic aspects of photo creation and the resultant communication impact. Student must supply an adjustable camera. May be taken three times.  
1012.00

21 Public Relations and Communications  
Photography (2) [Cx]  
(CSU)  
Hours: 24-27 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Prerequisite: Photography 7 or 10.  
Theory and practice of photographing people and locations for commercial and promotional purposes. Selection and use of equipment, set-ups, lighting, directing, presentation, and simple business practices are explored. Students produce a portfolio of projects, and must supply an adjustable camera for use in the course.  
1012.00

50 Introduction to Color Photography (4)  
(CSU)  
Hours: 48-54 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Photography 10.  
Basic background in the aesthetics, history, theory, techniques, and materials of color photography. Both color negative and color positive techniques are used. May be taken three times.  
1012.00

70 Museum and Gallery Field Study  
(Also available as Art 70 and Humanities 70)  
(CSU)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Advisory: Completion of any art or photography course.  
Issues in contemporary art, photography, art history, and photo history are investigated through direct observation of museum and gallery exhibitions. Readings, research, and class discussion provide the foundation for student understanding and analysis of art (including drawing, painting, photography, mixed media, sculpture, installation, and new media) in a museum setting. Field trips are a required part of this course. May be taken four times.  
1012.00

410 Digital Photography (4)  
(CSU)  
Hours: 48-54 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Photography 70.  
Corequisites: Art 68B, 68C, 466B, or 466C.  
Introduction to digital cameras, including point-and-shoot, 35mm professional, and studio cameras. Concepts, techniques, and controls in the use of image editing software, including Photoshop. Advanced digital printing and analysis. Critical examination of contemporary issues and portfolio development. Students are encouraged, but not required, to furnish their own digital cameras. May be taken three times.  
1012.00

422 Wedding Photography (2) [Cx]  
(Degree-applicable)  
Hours: 24-27 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Prerequisite: Photography 7 or 10.  
Theory and practice in the basic techniques of wedding photography. Combining artistic vision with the use of light, composition and subject posing to produce creative images. Appropriate selection and use of cameras, lenses, filters, lighting, and special effects are explored, as well as business presentations and sales strategies. May be taken three times.  
1012.00

90A_B Photography Honors Seminar (1)  
(CSU; UC credit limitations)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Honors component for Photography. Topics of interest are chosen by the instructor and students, and are presented in a seminar format. Prerequisites and/or corequisites are required. May be taken four times with change in topic emphasis.  
1011.00

92A-H Special Topics: Photography (.5-6)  
(CSU)  
Hours: 16-18 hours/term laboratory for each unit of credit.  
Grading: Letter grade only.  
Special-interest lecture course for students who wish an introduction to a particular aspect of photography for personal use or leisure activity. May be skill-oriented or informational. Topics vary and are determined by the instructor; see the class schedule for current term emphases. May be taken four times regardless of the unit combination, however, no single-subject, special-interest class may be repeated. May require corequisites and/or prerequisites based on the content of the course. 
1012.00

92LA-H Special Topics Laboratory: Photography (.5-6)  
(CSU)  
Hours: 48-54 hours/term laboratory for each unit of credit.  
Grading: Letter grade only.  
Special-interest laboratory course for students who wish an introduction to a particular aspect of photography for personal use or leisure activity. May be skill-oriented or informational. Topics vary and are determined by the instructor; see the class schedule for current term emphases. May be taken four times regardless of the unit combination, however, no single-subject, special-interest class may be repeated. May require corequisites and/or prerequisites based on the content of the course. 
1012.00

477 Photography Laboratory II (1)  
(Degree-applicable)  
Hours: 48-54 laboratory.  
Grading: Letter grade only.  
Corequisite: Photo 10, 11, 12, 13, 20, 21, 50, 410, or 422.  
Open laboratory for the current photography student who wishes to increase skills through the use of the photo-lab facility. May be taken four times.  
1012.00

PHYSICAL EDUCATION:  
ACTIVITY (PEACT)  
Courses 1-99: (CSU; UC credit limitations).  
Activity courses are letter grade only.  
Cluster repeatability: Students are limited to four (4) enrollments in any combination of courses within a designated cluster regardless of individual course unit values.  
• PEACT-1, 1A, 2, 2B (Tennis)  
• PEACT-3, 3A (Badminton)  
• PEACT-5, 5A (Golf)  
• PEACT-9, 9A (Swimming)  
• PEACT-12, 12A (Bowling)  
• PEACT-14, 14A (Archery)  
• PEACT-16, 16A, 17, 17A (Volleyball)  
• PEACT-20, 20A (Basketball)  
• PEACT-22, 22A, 23, 23A (Soccer)  
• PEACT-24, 24A (Low-Impact Aerobics)  
• PEACT-26, 26A (Body Conditioning)  
• PEACT-28, 28A (Yoga)  
• PEACT-30, 30A (Cardio-Fit Lab)  
• PEACT-31, 31A (Self-Defense)  
• PEACT-32, 32A, 33, 33A (Karaté)  
• PEACT-35, 35A (Walking/Cardio Fitness)

1 Beginning Tennis (1)  
Hours: 48-54 laboratory.  
Rules, court etiquette, history, and fundamental skills for tennis.  
0835.10

1A Beginning Tennis (.5)  
Hours: 24-27 laboratory.  
Rules, court etiquette, history, and fundamental skills for tennis.  
0835.10

2 Advanced Tennis (1)  
Hours: 48-54 laboratory.  
Rules, court etiquette, history, and advanced skills of tennis.  
0835.10

2A Advanced Tennis (.5)  
Hours: 24-27 laboratory.  
Rules, court etiquette, history, and advanced skills of tennis.  
0835.10

3 Badminton (1)  
Hours: 48-54 laboratory.  
Rules, etiquette, history, and fundamental skills for badminton.  
0835.10

3A Badminton (.5)  
Hours: 24-27 laboratory.  
Rules, etiquette, history, and fundamental skills for badminton.  
0835.10

5 Beginning Golf (1)  
Hours: 48-54 laboratory.  
Basic skills and course etiquette of golf.  
0835.10


5A Beginning Golf (.5)
Hours: 24-27 laboratory.
Basic skills and course etiquette of golf. 0835.10

9 Swimming (1)
Hours: 48-54 laboratory.
Basic skills and safety precautions for swimming. Several different strokes are taught according to skill levels. 0835.10

9A Swimming (.5)
Hours: 24-27 laboratory.
Basic skills and safety precautions for swimming. Several different strokes are taught according to skill levels. 0835.10

12 Bowling (1)
Hours: 48-54 laboratory.
Basic skills, rules, and etiquette of bowling. 0835.10

12A Bowling (.5)
Hours: 24-27 laboratory.
Basic skills, rules, and etiquette of bowling. 0835.10

14 Archery (1)
Hours: 48-54 laboratory.
Basic skills, rules, and etiquette of archery. 0835.10

14A Archery (.5)
Hours: 24-27 laboratory.
Basic skills, rules, and etiquette of archery. 0835.10

16 Volleyball (1)
Hours: 48-54 laboratory.
Rules, court etiquette, history, and basic skills of volleyball. 0835.10

16A Volleyball (.5)
Hours: 24-27 laboratory.
Rules, court etiquette, history, and basic skills of volleyball. 0835.10

17 Advanced Volleyball (1)
Hours: 48-54 laboratory.
Advisory: Previous volleyball experience.
Advanced skills, techniques, and information to use in offense and defense patterns in volleyball. 0835.10

17A Advanced Volleyball (.5)
Hours: 24-27 laboratory.
Advisory: Previous volleyball experience.
Advanced skills, techniques, and information to use in offense and defense patterns in volleyball. 0835.10

20 Basketball (1)
Hours: 48-54 laboratory.
Rules, court etiquette, basic offensive and defensive positions, and basic passing and dribbling techniques of basketball. 0835.10

20A Basketball (.5)
Hours: 24-27 laboratory.
Rules, court etiquette, basic offensive and defensive positions, and basic passing and dribbling techniques of basketball. 0835.10

22 Soccer (1)
Hours: 48-54 laboratory.
Kicks, dribbles, passes, ball control, patterns of play, and basic rules of soccer. 0835.10

22A Soccer (.5)
Hours: 24-27 laboratory.
Kicks, dribbles, passes, ball control, patterns of play, and basic rules of soccer. 0835.10

23 Intermediate Soccer (1)
Hours: 48-54 laboratory.
Advisory: Completion of Physical Education: Activity 22 or 22A.
Designed for players with basic soccer playing skills and understanding of the game, who wish to improve their playing abilities. 0835.10

23A Intermediate Soccer (.5)
Hours: 24-27 laboratory.
Advisory: Completion of Physical Education: Activity 22 or 22A.
Designed for players with basic soccer playing skills and understanding of the game, who wish to improve their playing abilities. 0835.10

24 Low Impact Aerobics (1)
Hours: 48-54 laboratory.
High energy, low impact, aerobic exercises, good posture, proper warm-ups and cool-down, strength, flexibility, and endurance exercise. Designed for beginning students of body conditioning. 0835.10

24A Low Impact Aerobics (.5)
Hours: 24-27 laboratory.
High energy, low impact, aerobic exercises, good posture, proper warm-ups and cool-down, strength, flexibility, and endurance exercise. Designed for beginning students of body conditioning. 0835.10

26 Body Conditioning: Cardio/Weight Training (1)
Hours: 48-54 laboratory.
Evaluation of total body fitness and study of body mechanics in everyday activities. Establishing fitness goals and developing appropriate exercise fitness routines to build strength, endurance, and flexibility. 0835.10

26A Body Conditioning: Cardio/Weight Training (.5)
Hours: 24-27 laboratory.
Evaluation of total body fitness and study of body mechanics in everyday activities. Establishing fitness goals and developing appropriate exercise fitness routines to build strength, endurance, and flexibility. 0835.10

28 Yoga (1)
Hours: 48-54 laboratory.
Breath, postures, and relaxation techniques to improve health and fitness levels of the mind and body. Emphasis on gaining flexibility, muscle strength, endurance, and coordination through the physical postures. Relaxation techniques incorporated for stress reduction and mental calm. 0835.10

28A Yoga (.5)
Hours: 24-27 laboratory.
Breath, postures, and relaxation techniques to improve health and fitness levels of the mind and body. Emphasis on gaining flexibility, muscle strength, endurance, and coordination through the physical postures. Relaxation techniques incorporated for stress reduction and mental calm. 0835.10

30 Cardio/Strength Fitness Lab (1)
Hours: 48-54 self-paced laboratory.
Safety and proper use of body-building equipment and how to perform the drills and exercises necessary for proper toning and conditioning of the body. 0835.10

30A Cardio/Strength Fitness Lab (.5)
Hours: 24-27 self-paced laboratory.
Safety and proper use of body-building equipment and how to perform the drills and exercises necessary for proper toning and conditioning of the body. 0835.10

31 Introduction to Self-Defense and Personal Safety (1)
Hours: 48-54 laboratory.
Beginning and foundation course in personal safety. Basic martial arts techniques for self-defense. Material covers safety and defense in a technical and practical framework. Focus on normal life and violence in society. 0835.10

31A Introduction to Self-Defense and Personal Safety (.5)
Hours: 24-27 laboratory.
Beginning and foundation course in personal safety. Basic martial arts techniques for self-defense. Material covers safety and defense in a technical and practical framework. Focus on normal life and violence in society. 0835.10

32 Karate and Athletic Conditioning I (1)
Hours: 48-54 laboratory.
Advisory: Previous martial arts experience, athletic training in a sport skill, or athletic conditioning.
Skill development, coordination, strength and mobility in basic karate technique with application of athletic conditioning and training methodology. 0835.10

32A Karate and Athletic Conditioning I (.5)
Hours: 24-27 laboratory.
Advisory: Previous martial arts experience, athletic training in a sport skill, or athletic conditioning.
Skill development, coordination, strength and mobility in basic karate technique with application of athletic conditioning and training methodology. 0835.10

33 Karate and Athletic Conditioning II (1)
Hours: 48-54 laboratory.
Advisory: Completion of Physical Education: Activity 32 or 32A.
Intermediate to advanced karate skill training and athletic conditioning. Basic karate athletic workout and prescribed personal training plan. Emphasis on plyometrics, flexibility, mechanics, training, and methodology. 0835.10

33A Karate and Athletic Conditioning II (.5)
Hours: 24-27 laboratory.
Advisory: Completion of Physical Education: Activity 32 or 32A.
Intermediate to advanced karate skill training and athletic conditioning. Basic karate athletic workout and prescribed personal training plan. Emphasis on plyometrics, flexibility, mechanics, training, and methodology. 0835.10

35 Cardio Fitness for Life (1)
Hours: 48-54 laboratory.
Advisory: Completion of Physical Education: Activity 32 or 32A.
Walking or running for physical health, muscular strength, fitness, weight control, and general well-being. Students develop a personalized fitness program with the assistance of the instructor, allowing them to work at their own pace. Focus includes both cardiovascular efficiency and muscular strength. Suitable for all ages and fitness levels. May be taken 4 times. 0835.10

35A Walking for Fitness (.5)
Hours: 24-27 laboratory.
Walking for physical health, fitness, weight control, and general well-being. Designed for men and women of all ages, course emphasizes perfecting fitness walking form and technique, building cardiovascular efficiency, increasing muscular strength, and attaining/maintaining a healthy weight. 0835.10
50 Baseball Fundamentals (1)  
Hours: 48-54 laboratory.  
Advisory: Previous baseball experience.  
Designed primarily for players with basic baseball playing skills and understanding of the game, who wish to improve their skill levels. Topics include: proper swinging motion technique, performance enhancement drills, game strategies, and safety issues.  

92LA-H Special Topics Lab: Physical Education (.5-6)  
Hours: 48-54 hours/term laboratory for each unit of credit.  
Special-interest course of varying length for students who wish further exploration in specific areas of physical education. Topics will be determined by the individual instructor. May be taken four times regardless of the unit combination, however, no single-subject, special-interest class may be repeated. May require corequisites and/or prerequisites based on the content of the course.  

601 Physical Conditioning (0)  
(Non-credit)  
Hours: Variable arranged  
Improving overall fitness through an understanding and application of the basic principles and techniques of physical conditioning. Emphasizes achieving muscular strength and endurance, cardio-respiratory endurance, and flexibility through various forms of exercise. May be taken four times.  

**PHYSICAL EDUCATION: LECTURE (PELEC)**

2 Introduction to Athletic Training (3)  
(CSU; UC)  
Hours: 40-45 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Advisory: Possession of current first-aid and cardiopulmonary resuscitation cards.  
Principles and knowledge necessary to provide fundamental health care for athletics for those not directly involved with sports medicine. Supplements first-aid background while stressing a preventive approach.  

6 Reflexology (2)  
(CSU)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Reflexology as related to exercise and stress related circulation. Analysis of theories, practices, and practical application of reflexology and how they relieve stress, tension, improve blood supply, and promote the unblocking of nerve impulses.  

9 Swim Lesson Instructor Course (3)  
(Cx)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Designed primarily for special-interest groups responsible for teaching life saving, water safety, and all levels of swimming skills. Information and practice to develop functional teaching skills required by cities, counties and states for all waterfront programs. Safety consciousness, accident prevention, rescue, and all aquatic skills. Meets the American National Red Cross requirements for certification.  

11 Football Video Analysis (2)  
(CSU; UC)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Comprehensive video review of football techniques by football coaches. Video tape from four-year colleges, community colleges, and high schools will be reviewed and analyzed. For physical education majors who want to coach football. May be taken twice.  

12 Principles and Practices of Officiating Team Sports (3)  
(Cx)  
(CSU; UC credit limitations)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Study of the principles of officiating in team sports, including interpretation of rules and analysis of good mechanics of officiating. Brief history and research of the sport to seek aids to better officiating.  

13 Professional Activities: Coaching Team Sports (3)  
(Cx)  
(CSU; UC credit limitations)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Information and experience for prospective players, coaches, and teachers. Introduction to the physical, mental, and emotional aspects of playing and coaching competitive sports.  

14 Lifeguard Training (3)  
(Cx)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Ability to swim 500 yards continuously using each of the following strokes for at least 100 yards: crawl, breaststroke, sidestroke, tread water for two minutes using legs only, and submerge to a depth of seven feet and return a ten pound object to the surface. Designed primarily for special-interest groups responsible for preventing water accidents and making water rescues. Information and practice to develop functional water rescues and accident prevention required by lifeguard crews. Upon successful completion of this course, students receive the following certificates:  
- American Red Cross Lifeguard Training  
- American Red Cross Standard First Aid  
- American Red Cross CPR for the Professional Rescuer  

15 Diet and Fitness (3)  
(Also available as Nutrition and Food 21)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
A lifestyle approach to fitness, including the study of nutrition, disease prevention, increased cardiovascular endurance, weight control, increased stress flexibility, stress management, and considerations of aging on the body.  

16 First Aid (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Immediate and temporary care for victims of injury, acute illness, or other medical emergency prior to treatment by licensed medical personnel, in accordance with the procedures and protocols established by the American Red Cross. Includes legal and ethical concerns, emergency scene control, identification of life-threatening conditions and appropriate emergency treatment, removal of airway obstruction, and one-person CPR administration. Upon successful completion of this course, students receive the following certificates:  
- American Red Cross First Aid-Responding to Emergency  
- American Red Cross Adult CPR  

17 First Aid and Emergency Responder (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Designed primarily for the person responsible for the emergency care of the sick and injured. Prepares the participant to make appropriate decisions in an emergency situation to help sustain life, reduce pain, and minimize the consequences of injury or sudden illness, until more advanced medical help can arrive. Upon successful completion of this course, students receive the following American Red Cross certificates:  
- Emergency Response  
- Cardio-Pulmonary Resuscitation – Automated External Defibrillation for Professional Rescuer  
- Preventing Disease Transmissions  
- Oxygen Administration for the Professional Rescuer  

Students are required to provide breathing masks and first aid kits. Fees are charged for each certificate earned. May be taken twice.  

18 Introduction to Kinesiology (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Survey of the discipline of Kinesiology, including physical activity, pedagogy, motor behavior, sport and exercise psychology, biomechanics, and the physiology of physical activity. Introduces students to various physical activity professions typically pursued by Kinesiologists and assists them in making early career decisions.  

32 Outdoor Adventures (2)  
(CSU; UC credit limitations)  
Hours: 16-18 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Introduces the techniques of backpacking, selection of equipment, group planning, conditioning, safety, and survival information. Guide to many forms of backpacking. Field trips are required to fulfill the laboratory requirement. May be taken twice.  

33 Introduction to Eastern Movement and Meditation (2)  
(CSU)  
Hours: 24-27 lecture; 24-27 laboratory.  
Grading: Letter grade only.  
Brief history of yoga, qigong, tai chi and meditation. Physical movements of these four disciplines is explored. Course includes readings and class discussions on the benefits of these ancient forms as resources toward one’s continuing physical education, growth, and well-being.  

92A-H Special Topics: Physical Education Lecture (.5-6)  
(CSU; UC credit limitations)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Pursues certain specializations in physical education. See class schedule for current topic emphasis. May be taken four times regardless of the unit combination, however, no single-subject, special-interest topics may be repeated. May require prerequisites and/or corequisites based on the content of the course.  

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CATALOG 2009-2010  
144  
Chaffey College
98A, B, C Independent Study: Physical Education (1, 2 or 3) (CSU and UC credit limitations)  
Grading: Letter grade only.  
Limitation on Enrollment: Instructor signature is required for registration.  
Designed for the capable, well-motivated student. Each student develops a project in a physical education area of his/her own interest. Student-instructor division chairperson agreement as to the nature and extent of the project must be reached before the student may enroll.  
0835.00

413 Sports Management (3) (Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Physical Education Lecture 13. Basic theory of sports management. Topics include: management and organizational skills, marketing and fundraising, communication, finance, safety issues, economics, and law and governance.  
0835.00

422 Therapeutic Touch (3) (Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Introduction to the wellness concepts and techniques of healing with an emphasis on stress reduction, acceleration of healing, and pain management. Integration of body/mind concepts to reflect holistic approach.  
0835.00

PHYSICAL EDUCATION: TEAM (PETEAM)

For all Physical Education Team courses:  
• Letter grade only.  
• (CSU; UC credit limitations).  
• Open-entry/open-exit activity (except PETEAM-83 and 84).  
• May be taken 4 times except PETEAM 83 and 84 (which may be taken twice), and Intercollegiate Physical Education Team courses PETEAM-41 through 59 (which may be taken four times, however athletes may only compete twice).

Hours for Physical Education Team 1 through 15: 48-54 laboratory per term.

1A Football Team Activity, Offense (1)  
Advisory: Competitive football background. Information and practice in the development of football basic offensive skills and techniques. Primarily intended for students who wish to compete in the sport of football, but is open to all.  
0835.10

1B Football Team Activity, Defense (1)  
Advisory: Competitive football background. Information and practice in the development of foot- ball basic defensive skills and techniques. Primarily intended for students who wish to compete in the sport of football, but is open to all.  
0835.10

2 Volleyball Team Activity, Women (1)  
Advisory: Competitive volleyball background. Designed for women interested in learning competitive volleyball and joining the women’s intercollegiate team.  
0835.10

3 Basketball Team Activity, Women (1)  
Focus on history, conditioning, rules, and fundamental skills needed for competitive women’s basketball.  
0835.10

4 Softball Team Activity, Women (1)  
Limitation on Enrollment: Competitive softball experience is required.  
Overall development of basic skills and knowledge needed for competitive women’s softball play.  
0835.10

5 Water Polo Team Activity, Men (1)  
Limitation on Enrollment: Water polo experience or possession of an advanced swimming certificate is required. Rules, etiquette, history, and advanced skills of water polo, designed for the prospective men’s water polo team participant.  
0835.10

6 Basketball Team Activity, Men (1)  
Advisory: Competitive basketball background. Designed for men interested in playing competitive men’s basketball.  
0835.10

7 Baseball Team Activity, Men (1)  
Limitation on Enrollment: Competitive baseball experience is required.  
Designed for men interested in learning to play competitive baseball at the college level.  
0835.10

8 Water Polo Team Activity, Women (1)  
Limitation on Enrollment: Water polo experience or possession of an advanced swimming certificate is required. Rules, etiquette, history, and advanced skills of water polo. Course is designed for prospective women’s water polo team participants.  
0835.10

11 Swimming Team Activity, Men and Women (1)  
Limitation on Enrollment: Above average swimming ability is required. Rules and fundamental skills involved in competitive swimming strokes. Designed for students interested in competitive swimming.  
0835.10

12 Track and Field Team Activity, Men (1)  
Advisory: Competitive track and/or field background. Specific experience in track and field. Emphasis on fundamental theory and basic skills. Designed for men interested in competitive track and field events at the college level.  
0835.10

13 Track and Field Team Activity, Women (1)  
Advisory: Competitive track and/or field background. Specific experience in track and field. Emphasis on fundamental theory and basic skills. Designed for women interested in competitive track and field events at the college level.  
0835.10

14 Soccer Team Activity, Men (1)  
Advisory: Competitive soccer background. Information and practice to develop basic soccer skills, techniques, and strategies. Designed for men interested in playing competitive soccer at the college level.  
0835.10

15 Soccer Team Activity, Women (1)  
Advisory: Competitive soccer background. Information and practice to develop basic soccer skills, techniques, and strategies. Designed for women interested in playing competitive soccer at the college level.  
0835.10

17 Swimming Team Activity, Women (1)  
Advisory: Competitive swimming. Advanced skills and techniques needed for competitive swimming, but is open to all.  
0835.10

20 Softball Team Activity, Women (1)  
Advisory: Competitive softball background. Information and practice to develop advanced offensive skills and techniques. Primarily intended for students who wish to compete in the intercollegiate sport of softball, but is open to all.  
0835.10

22 Volleyball Team Class, Women (2)  
Advisory: Competitive volleyball background. Basic volleyball skills, rules, and techniques. Primarily for students who wish to compete in the intercollegiate sport of volleyball, but is open to all.  
0835.10

23 Basketball Team Class, Women (2)  
Limitation on Enrollment: Basketball experience is required. Advanced skills for intercollegiate competition. Primarily for students who wish to compete in the intercollegiate sport of basketball, but is open to all.  
0835.10

24 Softball Team Class, Women (2)  
Limitation on Enrollment: Competitive softball experience is required. Advanced skills and knowledge needed for competitive softball play. Primarily for women who wish to compete in the intercollegiate sport of softball, but is open to all.  
0835.10

25 Water Polo Team Class, Men (2)  
Limitation on Enrollment: Water polo experience or advanced swimming ability is required. Rules, etiquette, history, and skills. Primarily for men who wish to compete in the intercollegiate sport of water polo, but is open to all.  
0835.10

26 Basketball Team Class, Men (2)  
Advisory: Competitive basketball background. Advanced skills and techniques for competitive men’s basketball. Primarily for men who wish to compete in the intercollegiate sport of basketball, but is open to all.  
0835.10

27 Baseball Team Class, Men (2)  
Limitation on Enrollment: Competitive baseball background is required. Designed for men interested in playing competitive baseball at the college level. Primarily for men who wish to compete in the intercollegiate sport of baseball, but is open to all.  
0835.10

29 Water Polo Team Class, Women (2)  
Limitation on Enrollment: Water polo experience or possession of an advanced swimming certificate is required. Rules, etiquette, history, and skills of water polo. Course is primarily for women who wish to compete in the intercollegiate sport of water polo, but is open to all.  
0835.10

31 Swimming Team Class, Men and Women (2)  
Limitation on Enrollment: Above average swimming ability is required. Rules and advanced skills involved in competitive swimming strokes. Primarily for students who wish to compete in the intercollegiate sport of swimming, but is open to all.  
0835.10

32 Track and Field Team Class, Men (2)  
Advisory: Competitive track and/or field background. Theories, principles, philosophies, and practical applications for competition in track and field events. Primarily for men who wish to compete in the intercollegiate sports of track and field, but is open to all.  
0835.10
33 Track and Field Team Class, Women (2)
Advisory: Competitive track and/or field background.
Opportunity for men and women to compete at the intercollegiate level in track and field events. Primarily for men who wish to compete in the intercollegiate sports of track and field, but is open to all. 0835.10

34 Soccer Team Class, Men (2)
Advisory: Competitive soccer background.
Continuation of practice and development of advanced soccer skills, techniques, and strategies. Primarily for men who wish to compete in the intercollegiate sport of soccer, but is open to all. 0835.10

35 Soccer Team Class, Women (2)
Advisory: Competitive soccer background.
Continuation of practice and development of advanced soccer skills, techniques, and strategies. Primarily for women who wish to compete in the intercollegiate sport of soccer, but is open to all. 0835.10

Hours for Physical Education (Intercollegiate) Team 41 through 59: 175 laboratory hours arranged per term.

41 Intercollegiate Football (2)
Advisory: Competitive football background.
Basic and advanced skills for competing in football contests. Information and daily practice to develop a high level of proficiency in football skills and techniques. 0835.50

42 Intercollegiate Volleyball Team, Women (2)
Opportunity for women to compete at the intercollegiate level in volleyball. 0835.50

43 Intercollegiate Basketball Team, Women (2)
Opportunity for women to compete at the intercollegiate level in basketball. 0835.50

44 Intercollegiate Softball Team, Women (2)
Opportunity for women to compete at the intercollegiate level in softball. 0835.50

45 Intercollegiate Water Polo Team, Men (2)
Limitation on Enrollment: Water polo experience or above average swimming ability is required. Competitive intercollegiate water polo team involving skills and knowledge of all aspects of competitive play. 0835.50

46 Intercollegiate Basketball Team, Men (2)
Opportunity for men to compete at the intercollegiate level in basketball. 0835.50

47 Intercollegiate Baseball Team, Men (2)
Opportunity for men to compete at the intercollegiate level in baseball. 0835.50

51 Intercollegiate Swimming Team, Men and Women (2)
Advisory: Above average swimming ability.
Opportunity for men and women to compete at the intercollegiate level in swimming. 0835.50

52 Intercollegiate Track and Field Team, Men (2)
Opportunity for men to compete at the intercollegiate level in track and field events. 0835.50

53 Intercollegiate Track and Field Team, Women (2)
Opportunity for women to compete at the intercollegiate level in track and field events. 0835.50

54 Intercollegiate Soccer Team, Men (2)
Opportunity for men to compete at the intercollegiate level in soccer. 0835.50

55 Intercollegiate Soccer Team, Women (2)
Opportunity for women to compete at the intercollegiate level in soccer. 0835.50

59 Intercollegiate Water Polo Team, Women (2)
Limitation on Enrollment: Water polo experience or above average swimming ability is required. Competitive intercollegiate women’s water polo team. Involving skills and knowledge of all aspects of competitive play. 0835.50

Hours for Physical Education Team 80, 81, and 82: 48-54 self-paced laboratory

80 Weights and Conditioning for Athletes (In-Season) (1)
Advisory: Concurrent or previous enrollment in any Physical Education: Team course. Safety and proper use of weight training equipment. Performing sport-specific drills and exercises necessary for proper conditioning for competitive athletes. Designed for in-season athletes competing at the intercollegiate level. 0835.50

81 Weights and Conditioning for Athletes (Off-Season) (1)
Advisory: Concurrent or previous enrollment in any Physical Education: Team course. Safety and proper use of weight training equipment. Performing sport-specific drills and exercises necessary for proper conditioning for competitive athletes. Designed for off-season athletes competing at the intercollegiate level. 0835.50

82 Weights and Conditioning for Athletes (In-Season) (1)
Advisory: Concurrent or previous enrollment in any Physical Education: Team course. Safety and proper use of weight training equipment. Performing sport-specific drills and exercises necessary for proper conditioning for competitive athletes. Designed for out-of-season athletes competing at the intercollegiate level. 0835.50

83 Strength and Conditioning for Athletes (In-Season) (2)
Advisory: Concurrent or previous enrollment in any Physical Education: Team course.
Advanced sport-specific drills and exercises designed for in-season athletes. Exercise routines increase strength, speed, flexibility, and conditioning to enhance athletic performance. Pre- and rehabilitative prescriptions are individually tailored and provided by the instructor. May be taken twice. 0835.50

84 Strength and Conditioning for Athletes (Off-Season) (2)
Advisory: Concurrent or previous enrollment in any Physical Education: Team course.
Advanced sport-specific drills and exercises designed for off-season athletes. Increased volume, intensity, frequency, and duration of specific activities improve strength, speed, flexibility, and overall conditioning, to enhance athletic performance. Exercises are prescribed by the instructor and tailored to the physical demands of each sport and individual capabilities. May be taken twice. 0835.50

10 Survey of Chemistry and Physics (4)
(CSU; UC)
Study of the basic concepts of chemistry and physics. Introduction to the principles of physics and chemistry. Prerequisites include: motion, forms of energy, electricity, magnetism, waves, electromagnetic radiation, and nuclear chemistry. 0835.50

5 The Ideas of Physics (3)
(CSU; UC credit limitations)
Prerequisite: Eligibility for Mathematics 420 as determined by the Chaffey assessment process. Study of the basic concepts of physics and chemistry. Prerequisites include: motion, forms of energy, electricity, magnetism, waves, electromagnetic radiation, and nuclear chemistry. 0835.50

6 The Ideas of Physics Laboratory (1)
(CSU; UC credit limitations)
Hours: 48-54 laboratory. 0835.50

28A College Physics I (4) (Cx)
(CSU; UC credit limitations)
Study of the basic concepts of physics and chemistry. Prerequisites include: motion, forms of energy, electricity, magnetism, waves, electromagnetic radiation, and nuclear chemistry. 0835.50

Physical Science (PHSCI)

PHYSICS (PHY)

5 The Ideas of Physics (3)
(CSU; UC credit limitations)
Prerequisite: Mathematics 31 and Physics 5 or 44 or one year of high school physics. Course is designed for students majoring in a life or medical science, or engineering technology, whose university major does not require calculus-based physics. Position, velocity, and acceleration of objects are described using vectors. The concepts of mass, force, momentum, and static equilibrium. 0835.50
POLITICAL SCIENCE (PS)

1 American Politics (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Study of the American political process and institutions. Topics include: social and political institutions, major American linkage institutions, the politics of public policy, the struggle of under-represented groups for equality, and other current problems. Analysis of the organization and function of California's state and local governments. May be offered as an Honors Course.
2207.00

2 Introduction to Political Science (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Use of methods and concepts to analyze political institutions, behavior, cultures, and ideologies. Various political systems (American and non-American) and the factors that lead to stability, change, and revolution.
2207.00

3 California Politics and Culture (3) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
State, county, and municipal government with an emphasis on California's unique heritage, culture, people, and politics. Issues such as economic and class conflict, immigration and ethnic-cultural influences, and problems in urban government in the 21st century are examined.
2207.00

4 Political Theory (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Introduction to the philosophical underpinnings of historical and contemporary political systems. Analysis of theoretical concepts including the nature of justice, power, freedom, and democracy. Views of theorists such as Plato, Machiavelli, and Marx are examined.
2207.00

7 International Relations (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Survey of historical and contemporary international relations. Examination of key IR theories and research methodologies, international security, the global economy, international law and organizations (e.g. UN, WTO), and non-traditional issues of human security -- global poverty, pandemics, environment and resource management, and NGOs. Emphases on the foreign policies of major states, areas of conflict and tension, and various aspects of globalization.
2207.00

10 Comparative Politics (3) (CSU; UC)
Hours: 48-54 lecture.
Grading: Letter grade only.
Introduction to the study of comparative politics by analyzing the political systems of select industrialized democracies, current/former communist states, and developing states. Focus on each state's unique ideological, social, economic, and historical factors and an examination of how these factors impact their governments and politics. In addition to surveying democratic and non-democratic systems of governance, emphasis on the process of democratization.
2207.00
11 Gender and American Politics (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Study of American politics at the national, state and local levels with an emphasis on the role of gender. Examination of women's participation in American politics from the perspective of each of the American link-age institutions (executive, legislative and judicial), federalism, public policy, as well as the organization and function of California's state and local govern-ments. NOTE: Students who have completed PS-1 will not receive credit for PS-11.  2207.00

21 Urban Politics (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Analysis of the politics of urban and suburban areas in the United States, other industrialized countries, and the Third World. Important issues such as unemployment, poverty, racism, and the impact of economic change will be examined.  2207.00

25 Latino Politics (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Examination of Latino politics. Topics include: political influence, civil rights, discrimination, immigration, affirmative action, assimilation, acculturation, citizen-ship, political efficacy, voting affiliations and tendencies, diversity within the Latino community, and contemporary political issues affecting Latinos. Special emphasis on the growing political and economic impact of Latinos on the local, state, national, and international levels.  2203.00

32 Law and Society (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Analysis of law, its functions, cultural variations, legal theories of justice, and law as a tool of social change. A comparative analysis of Western and Third World legal systems will also be made.  2207.00

90A Political Science Honors Seminar (1)  
(CSU; UC credit limitations)  
Hours: 18-24 hour/term lecture for each unit of credit.  
Grading: Letter grade only.  
Honors component for Political Science. Topics of interest are chosen by the instructor and students, and are presented in a seminar format. Prerequisites and/or corequisites are required. May be taken four times with change in topic emphasis.  2207.00

92A-H Special Topics: Political Science (.5-6)  
(CSU; UC credit limitations)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Special-interest course of varying length for students who wish further exploration in specific areas of politi-cal science. Topics will be determined by the individual instructor. This course may be taken only four times regardless of the unit combination. However, no single subject, special-interest class may be repeated. May require corequisites and/or prerequisites based on the content of the course.  2207.00

41 Biological Psychology (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Psychology 1.  
Study of the biological basis of behavior. Topics include: basic neuroanatomy and neurophysiology; neurophysiological mechanisms in movement, sensation, perception, learning, memory, emotion, psychological disorders, language, and consciousness; scientific method as applied in the brain sciences; brain evolution; and the effects of discoveries in the neurosciences on modern views of human nature and theories of mind.  2001.00

45 Psychoactive Drugs: The Chemistry of Consciousness (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Psychology 1.  
The major classes of psychoactive drugs, their subjective effects, and the mechanisms of their actions on the brain. Basic concepts in nerve cell physiology and brain structure and function, requisite for an understanding of drug actions.  2001.00

55 Abnormal Psychology (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Psychology 1.  
Introduction to psychopathology. Disorders of sensa-tion, perception, emotions, and thinking, and their nature, causes, and effects on life. Analysis of attempts at alleviation, helping therapies, and problem intervention.  2001.00

80 Research Methods in Psychology (4)  
(CSU; UC)  
Hours: 48-54 lecture; 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Psychology 1 and Social Science 10.  
Survey of research methods currently used in psychol-ogy: archival, naturalistic observation, case study, sur-vey, and field and laboratory experiments. Designed for the psychology major and others who require familiarity with such research techniques. Emphasis on student participation in conducting research and analyzing data.  2001.00

90A Psychology Honors Seminar (1)  
(CSU; UC credit limitations)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Honors component for Psychology. Topics of interest are chosen by the instructor and students, and are pre-sented in a seminar format. Prerequisites and/or corequisites are required. May be taken four times with change in topic emphasis.  2001.00
92A-H  Special Topics: Psychology (.5-6)  
(CSU UC credit limitations)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
For those students who would like to explore certain special areas of psychology in greater depth. Wide variety of topics offered, with the particular emphasis left up to the instructor. May be taken twice, however, the emphasis must be different each time.  2001.00

98A, B, C  Independent Study: Psychology (1, 2, 3)  
(CSU UC credit limitations)  
Grading: Letter grade only.  
Special project course designed for the capable, well-motivated student. Each student explores and develops a project or a paper on an area of personal interest in Psychology. Nature and extent of the project must be decided by student and instructor before the student may sign up for the course. Type and extent of the project determines the number of units allowed to be taken only four times, regardless of the unit combination.  2001.00

430  Health Psychology (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Health psychology, including historical and contemporary research and practice. Understanding of behaviors affecting health, including risks for cardiovascular disease, cancer, and other diseases. Psychological management of pain and chronic illness. Strategies for increasing adherence to healthy lifestyle behaviors.  2001.00

**Radiologic Technology (RADC)**

Students must apply for admission to the Radiologic Technology program and must pay for a physical examination.

10  Anatomy and Radiographic Positioning I (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Admission to the Radiologic Technology program.  
Corequisite: Radiologic Technology 10L.  
Comprehensive study of radiographic positioning of the chest, upper extremity, lower extremity, shoulder and pelvic girdle, abdomen, and urinary system, with emphasis on associated anatomy, radiographic image evaluation, communication, patient care and safety. Provides the knowledge base necessary to perform standard radiographic procedures. Consideration is given to radiation protection and the production of images of optimal diagnostic quality. Laboratory experience complements the didactic portion.  1225.00

10L  Laboratory for Anatomy and Radiographic Positioning I (1)  
(CSU)  
Hours: 48-54 laboratory.  
Grading: Letter grade only.  
Limitation on Enrollment: Admission to the Radiologic Technology program.  
Corequisite: Radiologic Technology 10L.  
Discussion, application, demonstration, role-play and timed simulated procedure evaluations for positioning of the chest, upper extremity, lower extremity, shoulder girdle, pelvic girdle, abdomen, and urinary system. Emphasis on associated anatomy, radiation protection, patient communication and effective interaction and communication with patient/family. Radiographic images are evaluated for appropriate anatomy, image quality and radiation protection according to standard criteria.  1225.00

16  Medical Procedures for Radiologic Technologists (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Admission to the Radiologic Technology program.  
Corequisite: Radiologic Technology 16L.  
Overview of radiographic foundations and the practitioner’s role in the health care delivery system, to include radiology’s history, legal terminology, concepts, principles, professional responsibilities, and safety. Topics include ethical issues and dilemmas found in clinical practice, role of the radiographer in patient education; attitudes and communication in patient care; professional standards and the ASRT scope of practice; patient care of pediatric, geriatric, and patents with tubes, catheters and lines; routine, unique situations, and trauma care patient procedures; Infection control procedures (medical and surgical asepsis) using standard precautions; skills theory including the acquired of vital signs, enema administration, and urinary catheterization; and the recognition and treatment of adverse reactions to contrast agents. Patient and radiographer safety protocols, including body mechanics, patient transfer and movement, positioning, immobilization, environmental safety and accident and incident reporting are emphasized. Laboratory experiences complement the didactic portion.  1225.00

16L  Laboratory for Medical Procedures for Radiologic Technologists (1)  
(CSU)  
Hours: 48-54 laboratory.  
Grading: Letter grade only.  
Limitation on Enrollment: Admission to the Radiologic Technology program.  
Corequisite: RADC 16.  
Discussion, application, role-play and timed simulated procedure evaluations of the medical procedures and techniques commonly used in radiology departments. Enema administration, drug administration and urinary catheterization procedures. Infection control procedures using standard precautions including the use of portable equipment. Assessment of patient status for vital signs and blood pressure. Focus on patient care, safety, effective communication, and proper body mechanics for wheelchair/stretcher transfer along with the importance of documentation and informed consent is emphasized. Medical and surgical aseptic technique is studied in depth.  1225.00

20  Radiologic Science and Protection (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Admission to the Radiologic Technology program.  
Corequisite: Radiologic Technology 20L.  
Course establishes a basic knowledge of the fundamental properties of radiation, x-ray production and interaction with matter. The content covers the operation of radiographic equipment and digital imaging systems. The prime technical factors required to produce a radiographic image and influence the production and recording of radiologic images are introduced. Imaging receptors for film/screen, computed radiography and direct-digital radiography systems are compared for methods of image acquisition, processing, delivery, storage, image display, archiving and retrieval. Radiation interaction effects on living systems and the factors affecting biological responses are studied. Emphasis is placed on attenuation and absorption of radiation within the human body, basic radiation measurement and the associated health effects. Principles of radiologic protection and safety for the patient and technologist are reviewed and correlated to state and federal radiation control laws. The use of accessories in radiography is explored. Laboratory experiments are performed to compliment the didactic instruction.  1225.00

20L  Laboratory for Radiologic Science and Protection (1)  
(CSU)  
Hours: 48-54 laboratory.  
Grading: Letter grade only.  
Limitation on Enrollment: Admission to the Radiologic Technology program.  
Corequisite: Radiologic Technology 20.  
Experiments are performed in on-campus radiographic laboratories to illustrate the theories presented in lecture. Through a process of discussion, demonstration, return demonstration, group sharing and demonstration evaluation, students correlate concepts with the actual making of a radiographic image. Laboratory experiments demonstrate the actual production of radiation, facilitating student acquisition of competency and skill in the handling of radiographic equipment. Calculations of exposure factors needed to produce radiographic images are performed for both film-based and digital radiography systems. Focus is placed on equipment manipulation (to include mobile units), image receptors, ionization and exposure, beam intensity and radiation protection. Radiographic image evaluation and critiques are performed to assist students to bridge between film-based and digital imaging systems.  1225.00

25  Anatomy and Radiographic Positioning II (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Successful completion of the first semester of the Radiologic Technology program.  
Prerequisite: Radiologic Technology 20.  
Corequisite: Radiologic Technology 25L.  
Comprehensive study of radiographic positioning of the vertebral column, bony thorax, gastrointestinal tract, and biliary system. Imaging considerations for trauma, mobile/portable, surgical and age specific approaches for pediatric and geriatric patients. Emphasis on associated anatomy, related introductory pathology, radiographic image evaluation, communication, patient care and safety. Radiation protection and the evaluation of optimal diagnostic images are stressed. Course provides the knowledge base and cognitive skills necessary to perform standard radiographic procedures.  1225.00
25L Laboratory for Anatomy and Radiographic Positioning II (1) (CSU)
Hours: 48-54 laboratory.
Grading: Letter grade only.
Limitation on Enrollment: Successful completion of the first semester of the Radiologic Technology Program.
Prerequisite: Radiologic Technology 10L.
Corequisite: Radiologic Technology 25.
Discussion, application, demonstration, role-play and timed simulated procedure evaluations for positioning of the vertebral column, bony thorax, gastrointestinal and biliary systems, trauma, mobile/surgical, pediatric and geriatric radiography. Emphasis on associated anatomy, radiation protection, patient communication and effective interaction and communication with patient/family. Radiographic images are evaluated for appropriate anatomy, image quality and radiation protection measures according to standard criteria.
1225.00

31 Radiographic Clinical Education I (2) (CSU)
Hours: 96-108 laboratory.
Grading: Letter grade only.
Limitation on Enrollment: Admission to the Radiologic Technology program.
First semester of clinical practice experiences designed for sequential development, application, critical analysis, and integration of the concepts and theories presented in the on-campus courses. Using competency-based assignments, the student first observes and then performs - under direct supervision - patient care and radiographic procedures. Course emphasis on familiarizing the student with the clinical educational setting, patient-centered clinical practice, professional development, and working relationships with other health care professionals.
1225.00

34 Radiographic Imaging (3) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Admission to the Radiologic Technology program.
Prerequisite: Radiologic Technology 20.
Corequisite: Radiologic Technology 34L.
Comprehensive study of the similarities and differences between film-based and digital imaging systems, including design, image acquisition, display, processing, delivery, and storage. Review of diagnostic radiology equipment components, function, and operation, to include x-ray tube circuitry, tomography, and radiographic grids. Radiographic film, intensifying screens, and film/screen cassette speeds are compared for technique differences and patient dose adjustments. Differences between detectors for cassette-based and cassette-less digital systems response to radiation are explored. In-depth study of radiation protection, health physics, cell radiosensitivity, and radiobiologic effects on humans.
1225.00

34L Laboratory for Radiographic Imaging (1) (CSU)
Hours: 48-54 laboratory.
Grading: Letter grade only.
Limitation on Enrollment: Admission to the Radiologic Technology program.
Prerequisite: Radiologic Technology 20L.
Corequisite: Radiologic Technology 34.
Theoretical concepts are correlated with laboratory results in a series of experiments conducted on on-campus laboratories. Through a process of discussion, demonstration, return demonstration, group sharing, and evaluation, students apply radiation theory to the production of quality images in both film-based and digital (computed radiography) systems. Digital imaging using computed radiography cassettes demonstrate the range of possible exposure latitude and association with patient dose considerations. Film/screen combinations, the use and misuse of grids, automatic processing, and quality control tests are performed and evaluated. Beam restriction (collimation), centering sensitivity, acquisition errors, and post-processing capabilities of digital imaging are also explored. Image evaluation and critiques assist students to bridge between film-based and digital imaging systems.
1225.00

40 Radiographic Clinical Education II (8) (CSU)
Hours: 384-432 laboratory.
Grading: Letter grade only.
Limitation on Enrollment: Successful completion of the first semester of the Radiologic Technology program.
Prerequisite: Radiologic Technology 31.
Clinical practice experiences designed for sequential development, application, critical analysis, integration, synthesis, and evaluation of concepts and theories in the performance of radiologic procedures. Using structured competency-based assignments concepts of team practice, patient-centered clinical practice and professional development are discussed, examined, evaluated, and reinforced. Course emphasis on patient assessment, competent performance of radiologic images, and well-being of the patient pre-, during, and post-procedure. Students perform under direct or indirect supervision as appropriate following the procedures in the Radiology Technology Student Handbook.
1225.00

50 Radiographic Clinical Education III (6) (CSU)
Hours: 288-334 laboratory.
Grading: Letter grade only.
Limitation on Enrollment: Admission to the Radiologic Technology program.
Continued clinical practice experiences designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of radiologic procedures. Through structured sequential, competency-based assignments in clinical setting, concepts of team practice, patient-centered clinical practice and professional development are discussed, examined, evaluated, and reinforced. Emphasis is on patient care and assessment, competent performance of radiologic imaging, and total quality management.
1225.00

55 Radiographic Equipment and Clinical Application (2) (CSU)
Hours: 32-36 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Admission to the Radiologic Technology program.
Course establishes a knowledge base in fluoroscopic equipment requirements, design, and operation, and expose curve and related radiation protection. Study of the radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies, and health care organizations. Class demonstrations/labs provide opportunity for application and reinforcement of theory.
1225.00

61 Radiographic Clinical Education IV (8) (CSU)
Hours: 384-432 laboratory.
Grading: Letter grade only.
Limitation on Enrollment: Must be a 2nd year Radiologic Technology student in good standing.
Continued clinical practice experiences designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of radiologic procedures. Through structured, competency-based assignments in the clinical setting, concepts of team practice, patient-centered clinical practice and professional development are discussed, examined, evaluated, and reinforced. Emphasis is on patient care and assessment, competent performance of radiologic imaging, and total quality management.
1225.00

66 Anatomy and Radiographic Positioning III (3) (CSU)
Hours: 48-54 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Must be a 2nd year Radiologic Technology student in good standing.
Corequisite: Radiologic Technology 66L.
Comprehensive study of radiographic positioning of the calvarium, facial area, sinuses, and temporal bone provides the knowledge base necessary to perform standard imaging procedures. An introduction to CT and other modalities is also included. Laboratory experience complements the didactic portion.
1225.00

66L Laboratory for Anatomy and Radiographic Positioning III (1) (CSU)
Hours: 528-594 laboratory.
Grading: Letter grade only.
Limitation on Enrollment: Must be a 2nd year Radiologic Technology student in good standing.
Guided practice in the application of radiologic technology to patients in a hospital environment, with increasingly independent performance by the student practitioner. Clinical experiences reinforce theory, perfect skills, and strengthen student-patient interactions, providing for the production of quality diagnostic images and patient well-being prior to, during, and following the procedure. Students move between clinical sites to experience different equipment and procedures. Evening shifts are required.
1225.00

70 Radiographic Clinical Education V (11) (CSU)
Hours: 64-72 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Must be a 2nd year Radiologic Technology student in good standing.
Guided practice in the application of radiologic technology to patients in a hospital environment, with increasingly independent performance by the student practitioner. Clinical experiences reinforce theory, perfect skills, and strengthen student-patient interactions, providing for the production of quality diagnostic images and patient well-being prior to, during, and following the procedure. Students move between clinical sites to experience different equipment and procedures. Evening shifts are required.
1225.00

76 Radiographic Pathology (4) (CSU)
Hours: 64-72 lecture.
Grading: Letter grade only.
Limitation on Enrollment: Must be a 2nd year Radiologic Technology student in good standing.
Introduction to theories of disease causation and the pathophysiologic disorders that compromise healthy systems. Analysis of alterations in body systems' anatomy and physiology occurring in response to disease, emphasizing the impact on related radiographic procedures. Definitions and classifications, etiology, pathophysiologic responses, complications, clinical manifestations, radiographic appearance, and procedural and technique considerations are studied in depth.
1225.00
81 Radiographic Clinical Education VI (5)  
(CSU)  
Hours: 240-270 laboratory.  
Grading: Letter grade only.  
Limitation on Enrollment: Admission to the Radiologic Technology program.  
Prerequisite: Radiologic Technology 70.  
Final course in the series of guided practicums applying radiologic technology to patients in a hospital environment. Advanced clinical practice experiences designed to provide patient assessment and care, competent performance of radiologic imaging, and assure total quality management. Sequential development, critical analysis, integration, synthesis, application, and evaluation of concepts and theories in the performance of radiologic procedures. Students perform independently with appropriate supervision to assess their skills for employability.  
1225.00

85 Radiographic Review and Exam Preparation (2)  
(CSU)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Admission to the Radiologic Technology program and successful completion of the fifth semester of the Radiologic Technology program. Review of the entire radiologic technology curriculum, following the ARRT examination outline, to prepare the student for the written certifying examinations at the state and national levels.  
1225.00

460 Venipuncture for Imaging Professionals (1.5)  
(Degree-applicable)  
Hours: 24-27 lecture.  
Grading: Letter grade only.  
Limitation on Enrollment: Admission to the Radiologic Technology program and successful completion of the fifth semester of the Radiologic Technology program. Focus on reading comprehension, literary terminology, vocabulary development, and study techniques. Fifteen hours of supplemental learning in a Success Center that supports this course is required.  
1225.00

460L Venipuncture Laboratory for Imaging Professionals (5)  
(Degree-applicable)  
Hours: 24-27 laboratory.  
Grading: Letter grade only.  
Limitation on Enrollment: Admission to the Radiologic Technology program and successful completion of the fifth semester of the Radiologic Technology program. Focus on reading comprehension, literary terminology, vocabulary development, and study techniques. Fifteen hours of supplemental learning in a Success Center that supports this course is required.  
1225.00

500 Beginning Reading (3)  
(Non-degree-applicable)  
Hours: 48-54 lecture.  
Grading: Pass/No Pass grade only.  
Prerequisite: Eligibility for Reading 500 as determined by the Chaffey assessment process.  
Beginning reading class for students with average reading skills. Emphasis on basic sight vocabulary, comprehension, and critical reading skills. Fifteen hours of supplemental learning in a Success Center that supports this course is required. May be taken twice.  
4930.71

510 Introduction to Reading (3)  
(Non-degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Eligibility for Reading 510 as determined by the Chaffey assessment process.  
Beginning reading class for students with a variety of backgrounds and learning skills, who are having extreme difficulty with reading. Emphasis on phonics, basic sight vocabulary, comprehension, and following directions. Fifteen hours of supplemental learning in a Success Center that supports this course is required. May be taken twice.  
4930.70

520 Intermediate Reading (3)  
(Non-degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Eligibility for Reading 520 as determined by the Chaffey assessment process.  
Beginning reading class for students with a variety of backgrounds and learning skills. Emphasis on locating the main idea, making inferences, vocabulary improvement, and understanding paragraphs. Fifteen hours of supplemental learning in a Success Center that supports this course is required. May be taken twice.  
4930.70

530 Interactive Reading and Literature (3)  
(Non-degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Eligibility for Reading 530 as determined by the Chaffey assessment process.  
Focus on reading comprehension, literary terminology, and vocabulary development, using literature as a basis. Fifteen hours of supplemental learning in a Success Center that supports this course is required. May be taken twice.  
4930.70

550 Reading Improvement (3)  
(Non-degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Eligibility for Reading 550 as determined by the Chaffey assessment process.  
Program of systematic training to develop literal and critical comprehension, vocabulary, and speed skills, targeted to students with average reading skills. Fifteen hours of supplemental learning in a Success Center that supports this course is required. May be taken twice.  
4930.70

10 Real Estate Principles (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Real Estate 10. Office procedures and practices of the broker and salesperson in the real estate business, including listing, prospecting, advertising, financing, exchanges, and sales techniques. Course is applicable toward the educational requirements for broker’s license and real estate salesperson’s license.  
0511.00

15 Real Estate Practice (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Real Estate 10. Introductory course to acquaint students with current California real estate law, with emphasis on its application in real estate brokerage and related fields. Course is applicable toward the educational requirements for broker’s license and real estate salesperson’s license.  
0511.00

50 Legal Aspects of Real Estate I (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Real Estate 10. Introductory course to acquaint students with current California real estate law, with emphasis on its application in real estate brokerage and related fields. Course is applicable toward the educational requirements for broker’s license and real estate salesperson’s license.  
0511.00

60 Real Estate Finance (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Real Estate 10. Analysis of real property financing. Topics include primary and secondary sources of real estate loans, mathematics and legal aspects of finance, role of government agencies, mortgage insurance and interest rates, credit reporting, real estate appraisal, and taxation. Course is applicable toward the educational requirements for broker’s license and real estate salesperson’s license.  
0511.00
70 Real Estate Appraisal (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Real Estate 10.  
Advisory: Current real estate license may substitute for Real Estate 10.  
Introductory course covering the purposes of appraisals, the appraisal process and approaches, and the methods and techniques used to determine the value of various types of property, with emphasis on the single-family residence. Course is applicable toward the educational requirements for broker’s license and real estate salesperson’s license. 0511.00

86 Real Estate Property Management (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Real Estate 10.  
Introduction to management of real estate property. Identification and analysis of functions, responsibilities, legal rights, liabilities, and leasing instruments of property management. Course is an elective for the California sales or broker’s license. 0511.00

92A-H Special Topics: Real Estate ( .5-6)  
(CSU)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Special-interest lecture course for students who wish further exploration in specific areas of real estate. Topics vary and are determined by the individual instructor; see schedule of classes for current term emphases. May be taken four times, regardless of the unit combination, however, no single-subject special-interest class may be repeated. May require corequisites and/or prerequisites based on the content of the course. 0511.00

472 Advanced Real Estate Appraisal (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Real Estate 70.  
Appraisal of residential apartment buildings, small office buildings, shopping centers, and industrial buildings. Course meets California real estate broker license requirements, and is accepted as 54 hours toward Office of Real Estate Appraisers (OREA) certific ate-residential/certificate-general appraisal requirements. 0511.00

475 Real Estate Escrow I (3)  
(Degree-applicable)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Real Estate 10.  
Case method study of escrow procedures, including the actual processing of sale escrow. Topics include: encumbrances, interest adjustments, reconveyance, mortgages, insurance, taxes, fees, unique vocabulary, title policy types, drawing of documents, and other processing details pertinent to the handling of an escrow from inception to closing. Course applies towards the education requirements for broker’s and real estate salesperson’s licenses. 0511.10

10 Statistics for Social Science (4)  
(CSU; UC credit limitations)  
Hours: 48-54 lecture, 48-54 laboratory.  
Grading: Letter grade only.  
Prerequisite: Mathematics 4 or 25.  
Survey of methods used to analyze and interpret data generated by scientific investigation. Purpose and application of statistics, frequency distributions and graphing, central tendency, variability, percentiles, standard scores, the normal distribution, regression, correlation, probability, hypothesis testing, simple and two-factor analysis of variance, and non-parametric techniques. Use of computerized statistical packages (e.g. SPSS). 2201.00

13 Introduction to Social Work (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Basic word processing knowledge is desirable.  
A basic understanding of microcomputer functions used in the Social and Behavioral Sciences. Students will prepare academic and research papers according to Social Science standards, and learn to access specialized resources on the Internet. Introduction to Social Science applications for data analysis; social survey software. 2201.00

15 Introduction to Peer Counseling (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Introduction to the “helping professions”. Concepts and methods of communication and development of listening and helping skills that lead to constructive human relationships. Develops helping skills applicable to a variety of situations. Strongly recommended for anyone interested in becoming a student ambassador or peer counselor. 2201.00

24 Introduction to Ethnic Studies (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of any introductory courses in psychology, sociology, anthropology, religion, or philosophy.  

25 Introduction to Chicano/Latino Studies in the United States (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Survey of the American experience of ethnic and racial relations, and introduction to fundamental theories of racism and ethnocentrism. Exploration of the issues confronted by minority groups in the United States and the interrelationships of those minority groups with each other and the dominant American culture. Emphasis is given to Native, African, Hispanic, and Asian-American cultural experiences. 2203.00

26 Introduction to Latin American Societies (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Survey of Latin American societies in Mexico, Central and South America, and the Caribbean. Examination of the patterns of social, economic, political, and cultural change in modern Latin America, and the multidimensional legacies of conquest. Analysis of U.S.-Latin American relations and symbolic influences. Study of cultural diversity, race, and gender as reflected in religion, art, literature, music, and film. Scrutiny of the influence of race, gender, class division, and social conditions as stimuli for cultural change, social movements, revolutions, civil wars, dictatorships, and democracy. Application of sociological perspectives to the study of Latin American societies. 2203.00
90 Seminar: Social Science (3)  
(CSU; UC credit limitations)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Designed to bring together one or more faculty members and a small group of students with a common interest, to pursue study of a selected social science topic through the seminar approach. May be taken twice.  
2201.00

92A-H Special Topics: Social Science (.5-6)  
(CSU; UC credit limitations)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Special-interest lecture course for students who wish further exploration in specific areas of social science. Topics are determined by the individual instructor; see schedule of classes for current term emphases. May be taken four times regardless of the unit combination, however, no single-subject, special-interest class may be repeated. May require corequisites and/or prerequisites based on the content of the course.  
2201.00

96A, B, C, D Internships in the Social/Behavioral Sciences (1, 2, 3, or 4)  
(CSU)  
Hours: 60 hours/term (unpaid) or 75 hours/term (paid) on-site work experience for each unit of credit.  
Grading: Letter grade only.  
Limitation on Enrollment: Instructor or program coordinator signature is required for registration.  
Supervised work experience in community organizations, agencies and institutions. Designed to apply knowledge and learn new skills outside of the normal classroom environment. Placement is arranged through the instructor. Participation requirements may vary with the setting. May be taken four times, for a maximum of twelve units credit. Verification of fingerprinting is required by some agencies before internship starts.  
2104.00

98A, B, C, D Independent Study: Social Science (1, 2, 3, or 4)  
(CSU)  
Grading: Letter grade only.  
Limitation on Enrollment: Instructor signature is required for registration.  
Special project course designed for the capable, well-motivated student. Student chooses a social science topic to explore and develops a project or a report. Student-instructor agreement as to the nature and extent of the project must be reached before the student enrolls. May be taken three times regardless of the unit combination.  
2201.00

SOCIOLGY (SOC)  
(ALSO SEE SOCIAL SCIENCE)

10 Introduction to Sociology (3)  
(CSU; UC credit limitations)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Characteristics of social life, processes of interaction, consequences of group membership, structures of the institutions of modern society, factors that perpetuate social inequality, and conditions affecting social change and globalization. May be offered as an Honors course.  
2208.00

11 Popular Culture (3)  
(CSU)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Sociology 10.  
Analyzes the role of popular culture as a site of contemporary social practices and cultural politics. Considers the institutional organization and production of popular culture, its meanings and symbols, and its role in shaping and reflecting social attitudes, interactions, and behaviors.  
2208.00

14 Sociology of Gender (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Sociology 10.  
Role and status of women and men in society, examining issues of gender equity and recent changes that affect the family, education, the economy, the law, and other institutions. Historical and cross-cultural information. Myths about gender differences and gender inequality.  
2208.00

15 Ethnic and Race Relations: U.S. and Global Perspectives (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Advisory: Completion of Sociology 10.  
Application of major sociological theories and concepts to the examination of ethnic and race relations in the United States and the world, with detailed focus on the four major U.S. ethnic groups: African-American, Latino-American, Asian-American, and Native American. Scrutiny of historical, socioeconomic, and gender influence on inter-group relations. Analysis of the symbiotic nature between social institutions and dominant-subordinate ethnic/race relations. Significance of contemporary multiculturalism, and its relation to racism, ethnocentrism, and sexism.  
2208.00

16 Marriage, Family and Relationships (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Cross-cultural, social class, and ethnic variation in marriages, families, and relationships. Topics include: romantic love, mate selection, gender roles, communication, sexuality, parenting, divorce, single-parent families, remarriage, cohabitation, and abusive relationships. Emphasis on the application of theories, research, and social factors.  
2208.00

18 Sociology of Aging (3)  
(Also available as Gerontology 18)  
(CSU; UC credit limitations)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Cross-cultural, social, and policy issues for an aging society. Diversity in the experience of aging: cultural, economic, gender, and ethnic differences. Age and aging as social constructs. Life-long age status and role expectations. Society’s response to an increasingly aged population. May be offered as an Honors course.  
2208.00

70 Social Problems (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Sociology 10.  
Social problems in modern industrial societies. Discussion of the techniques of social problems research. Sexual deviance, alcohol and drug abuse, crime, poverty, and sexism.  
2208.00

90A Sociology Honors Seminar (1)  
(CSU; UC credit limitations)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Honors component for Sociology. Topics of interest are chosen by the instructor and students, and are presented in a seminar format. Prerequisites and/or corequisites are required. May be taken four times with change in topic emphasis.  
2208.00

92A-H Special Topics: Sociology (1-6)  
(CSU; UC credit limitations)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Special-interest lecture course for students who wish further exploration in specific areas of sociology. Topics are determined by the individual instructor; see the schedule of classes for current term emphases. May be taken four times regardless of the unit combination, however, no single-subject, special-interest class may be repeated. May require corequisites and/or prerequisites based on the content of the course.  
2208.00

SPANISH (SPAN)

1 Elementary Spanish (4)  
(CSU; UC)  
Hours: 64-72 lecture.  
Grading: Letter grade only.  
A systematic presentation of language patterns and of the underlying cultural ideas that lead to facility in the four basic skills: aural, oral, reading, and writing. Reading selections introduce various aspects of the life and culture of the Spanish-speaking peoples. Materials demonstrating cultural and historic aspects further supplement the textbook and are the basis for additional oral practice. Ten hours of supplemental learning in a Success Center that supports this course is required. This course corresponds to the first year of high school Spanish. Spanish 1 is not recommended for heritage (native) speakers of Spanish.  
1105.00

1A Elementary Spanish (2)  
(CSU; UC credit limitations)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
A systematic presentation of language patterns and of the underlying cultural ideas that lead to facility in the four basic skills: aural, oral, reading, and writing. Reading selections introduce various aspects of the life and culture of the Spanish-speaking peoples. Materials demonstrating cultural and historic aspects further supplement the textbook and are the basis for additional oral practice. Ten hours of supplemental learning in a Success Center that supports this course is required. Spanish 1A is equivalent to the first half of Spanish 1; students must successfully complete both Spanish 1A and Spanish 1B in order to receive CSU General Education credit for Spanish 1. Spanish 1A is not recommended for heritage (native) speakers of Spanish.  
1105.00
1B Elementary Spanish (2)  
(CSU; UC credit limitations)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Prerequisite: Spanish 1A.  
Continued systematic presentation of language patterns and of the underlying cultural ideas that lead to facility in the four basic skills: aural, oral, reading, and writing. Reading selections introduce various aspects of the life and culture of the Spanish-speaking peoples. Materials demonstrating cultural and historic aspects further supplement the textbook and are the basis for additional oral practice. Ten hours of supplemental learning in a Success Center that supports this course is required. Spanish 1B is equivalent to the second half of Spanish 1; students must successfully complete both Spanish 1A and Spanish 1B in order to receive CSU General Education credit for Spanish 1. Completion of both Spanish 1A and Spanish 1B corresponds to one year of high school Spanish. Spanish 1B is not recommended for heritage (native) speakers of Spanish.  
1105.00

2A Elementary Spanish (2)  
(CSU; UC credit limitations)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Prerequisite: Spanish 1A.  
Continued systematic presentation of language patterns and of the underlying cultural ideas that lead to facility in the four basic skills: aural, oral, reading, and writing. Reading selections introduce various aspects of the life and culture of the Spanish-speaking peoples. Materials demonstrating cultural and historic aspects further supplement the textbook and are the basis for additional oral practice. Ten hours of supplemental learning in a Success Center that supports this course is required. Spanish 2A is equivalent to the first half of Spanish 2; students must successfully complete both Spanish 2A and Spanish 2B in order to receive CSU General Education credit for Spanish 2. Spanish 2A is not recommended for heritage (native) speakers of Spanish.  
1105.00

2B Elementary Spanish (2)  
(CSU; UC credit limitations)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Prerequisite: Spanish 2A.  
Continued systematic presentation of language patterns and of the underlying cultural ideas that lead to facility in the four basic skills: aural, oral, reading, and writing. Reading selections introduce additional aspects of the life and culture of the Spanish-speaking peoples. Materials demonstrating cultural and historic aspects further supplement the textbook and are the basis for additional oral practice. Ten hours of supplemental learning in a Success Center that supports this course is required. Spanish 2B is equivalent to the second half of Spanish 2; students must successfully complete both Spanish 2A and Spanish 2B in order to receive CSU General Education credit for Spanish 2. Spanish 2B is not recommended for heritage (native) speakers of Spanish.  
1105.00

3 Intermediate Spanish (4)  
(CSU; UC credit limitations)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Prerequisite: Spanish 2A or 2B.  
Continued review of basic grammar and introduction to more elaborate structures of syntax and grammar, with emphasis on composition, reading, and discussion in Spanish. Studying texts of moderate difficulty in the culture, history, and literature of the Hispanic world. Ten hours of supplemental learning in a Success Center that supports this course is required.  
1105.00

4 Intermediate Spanish (4)  
(CSU; UC credit limitations)  
Hours: 32-36 lecture.  
Grading: Letter grade only.  
Prerequisite: Spanish 3.  
Continued review of basic grammar and introduction to more elaborate structures of syntax and grammar, with emphasis on composition, reading, and discussion in Spanish. Studying texts of moderate difficulty in the culture, history, and literature of the Hispanic world. Ten hours of supplemental learning in a Success Center that supports this course is required.  
1105.00

7 Survey of Hispanic Literature: 1100-1700 (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Spanish 2 or 2SS.  
Chronological survey, conducted in Spanish, of the history and development of Spanish and Spanish-American literature, from 1100-1700. Continuation of a comprehensive study of the Spanish language that prepares students for upper-division language courses. Reading selections introduce aspects of the life and culture of the Spanish-speaking peoples.  
1105.00

8 Survey of Hispanic Literature: 1700-Present (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Prerequisite: Spanish 2 or 2SS.  
Chronological survey, conducted in Spanish, of the history and development of Spanish and Spanish-American literature, from 1700 to the present. Continuation of a comprehensive study of the Spanish language that prepares students for upper-division language courses. Reading selections introduce aspects of the life and culture of the Spanish-speaking peoples.  
1105.00

13 Survey of Mexican Literature (3)  
(CSU; UC)  
Hours: 48-54 lecture.  
Grading: Letter grade only.  
Survey of Mexican literature (in translation) of the twentieth and twenty-first centuries, with a background in earlier works providing insight into these great works of literature. Close reading - with particular attention to culturally influenced writing styles and literary techniques - guides the inexperienced reader toward greater understanding and appreciation of the literature of Mexico.  
1105.00

9A Spanish Honors Seminar (1)  
(CSU; UC credit limitations)  
Hours: 16-18 lecture.  
Grading: Letter grade only.  
Honors component for Spanish. Topics of interest are chosen by the instructor and students, and are presented in a seminar format. Prerequisites and/or corequisites are required. May be taken four times with change in topic emphasis.  
1105.00

9A-H Special Topics: Spanish (5-6)  
(CSU; UC credit limitations)  
Hours: 16-18 hours/term lecture for each unit of credit.  
Grading: Letter grade only.  
Special interest lecture class for students who seek further development in specific areas of Spanish literature and extended knowledge of the language and culture. Variety of topics offered with particular emphasis determined by the instructor; see schedule of classes for current term emphases. May be taken four times, however no single-subject, special-interest, course may be repeated. May require corequisites and/or prerequisites based on the content of the course.  
1105.00
98A, B, C Independent Study: Spanish Literature (1, 2, or 3) 
(CSU and UC credit limitations) 
Grading: Letter grade only. 
Limitation on Enrollment: Instructor signature is required for registration. 
Designed for the capable, well-motivated student. Student explores and develops a literary project. Student-instructor agreement as to the nature and extent of the project must be reached before the student enrolls. May be taken three times, regardless of the unit combination. 
1105.00

460 Spanish for the Professions (3) 
(Degree-applicable) 
Hours: 48-54 lecture. 
Grading: Letter grade only. 
An introduction to Spanish for people working with the Spanish-speaking public in the following areas: health, business, law enforcement, and education. May be taken twice with change in topic emphasis. 
1105.00

Statistics (STAT) 
10 Elementary Statistics (4) 
(CSU, UC credit limitations) 
Hours: 64-72 lecture. 
Grading: Letter grade only. 
Prerequisite: Eligibility for Mathematics 25 or higher as determined by the Chaffey assessment process, or completion of Mathematics 425. 
Introduction to descriptive and inferential statistics with problem sets and examples from a variety of disciplines. Topics include frequency distribution; measures of variation and central tendency; elementary probability theory; discrete and continuous random variables; binomial, normal, and t-distribution; interval estimations of population parameters; hypotheses testing; analysis of variance; chi square analysis; and estimations of population parameters; hypotheses testing; analysis of variance; chi square analysis; and t-distribution. May be taken twice. 
1007.00

21 Directing for the Stage II (3) 
(CSU; UC) 
Hours: 48-54 lecture. 
Grading: Letter grade only. 
Advisory: Completion of Theatre Arts 20, and Theatre Arts 30, 40, 50, 51 or 56. 
For advanced students who wish to study directing from a directing standpoint. Student directs a production for public presentation. 
1007.00

32 Theatre Design - Lighting (3) 
(CSU) 
Hours: 48-54 lecture. 
Grading: Letter grade only. 
Advisory: Completion of Theatre Arts 30. 
Processes for theatrical lighting design, including script analysis, research, sketches, and critical analysis of class projects. Development of basic lighting design skills through practical projects that stress collaboration, light and color manipulation, craft skills, and computer assisted set-lighting and sound design. May be taken four times. 
1006.00

34 Theatre Design - Scenography (3) 
(CSU) 
Hours: 48-54 lecture. 
Grading: Letter grade only. 
Advisory: Completion of Theatre Arts 30. 
Processes for theatrical scenic design, including script analysis, research, sketches, and critical analysis of class projects. Development of basic scenic design skills through practical projects that stress collaboration, light and color manipulation, craft skills, and computer assisted drawing and drafting (CADD) competency. Artistic quality and creativity are emphasized. May be taken twice. 
1006.00

12 Intermediate Acting (3) 
(CSU; UC) 
Hours: 48-54 lecture. 
Grading: Letter grade only. 
Advisory: Completion of Theatre Arts 10 and concurrent enrollment in Theatre Arts 20 or 30. 
In depth application of the techniques explored in beginning acting, with emphasis on characterization and scene study. May be taken twice. 
1007.00

30 Technical Theatre (3) 
(CSU; UC) 
Hours: 32-36 lecture: 48-54 laboratory. 
Grading: Letter grade only. 
The theory and practice of stagecraft including construction techniques, painting properties, rigging and lighting, sound, knowledge of tools and equipment, shop safety, and computer assisted set-lighting and sound design. May be taken twice. 
1006.00

5 Development of the Theatre II (3) (Cx) 
(CSU; UC) 
Hours: 48-54 lecture. 
Grading: Letter grade only. 
Study of the Western theatre from the seventeenth through the twentieth centuries. Emphasis on historical, philosophical, and sociological influences on development of the theatre. Plays representative of each period are read and discussed. 
1007.00

14 Stylized Acting (3) 
(CSU; UC) 
Hours: 48-54 lecture. 
Grading: Letter grade only. 
Advisory: Completion of Theatre Arts 10. 
Advanced acting techniques necessary for drama of various types: stylized, classic, and modern. Some work on dialects as needed for specific scenes. 
1007.00

35 Musical Theatre Performance (3) 
(CSU) 
Hours: 96-108 studio. 
Grading: Letter grade only. 
Advisory: Completion of Theatre Arts 30. 
Processes for theatrical scenic design, including script analysis, research, sketches, and critical analysis of class projects. Development of basic scenic design skills through practical projects that stress collaboration, light and color manipulation, and computer-assisted drawing and drafting (CADD) competency. Artistic quality and creativity are emphasized. May be taken four times. 
1006.00

20 Directing for the Stage I (3) (CSU; UC) 
Hours: 48-54 lecture. 
Grading: Letter grade only. 
Advisory: Completion of Theatre Arts 12, and Theatre Arts 30, 40, 50, 51 or 56. 
For advanced students who wish to study acting from a directing standpoint. Prepares the student to begin directing. 
1007.00

4 Development of the Theatre I (3) (Cx) 
(CSU; UC) 
Hours: 48-54 lecture. 
Grading: Letter grade only. 
Study of the Western theatre from its beginning in Greece through Elizabethan drama. Emphasis on historical, philosophical, and sociological influences on development of the theatre. Plays representative of each period studied are read and discussed. 
1007.00

34 Theatre Design - Scenography (3) 
(CSU; UC) 
Hours: 48-54 lecture. 
Grading: Letter grade only. 
Advisory: Completion of Theatre Arts 30, 40, 51 or 56. 
Processes for theatrical scenic design, including script analysis, research, sketches, and critical analysis of class projects. Development of basic scenic design skills through practical projects that stress collaboration, light and color manipulation, and computer-assisted drawing and drafting (CADD) competency. Artistic quality and creativity are emphasized. May be taken four times. 
1007.00
40 Stage Costuming (3)

(UC; CSU)

Hours: 32-36 lecture; 48-54 laboratory.
Grading: Letter grade only.

Theory and application of costume design and construction for theatre. Research, principles of design, and construction techniques. Members of the class construct all costumes necessary for the semester’s theatrical production. May be taken three times.

1006.00

42. Theatrical Makeup (3)

(UC; CSU)

Hours: 48-54 lecture.
Grading: Letter grade only.

Introduction to the theory, design, and application of makeup for the theatre, including corrective, character, and non-realistic. Practical use of theatrical makeup materials for the various theatrical forms.

1006.00

50 Main Stage Production Workshop I (3)

(UC; CSU)

Hours: 144-162 laboratory.
Grading: Letter grade only.

Supervised practical experience in the preparation and performance of a theatrical production. Requires participation in one of the faculty-directed productions in either an acting or production role. May be taken four times.

1006.00

51 Main Stage Production Workshop II (3)

(UC; CSU)

Hours: 144-162 laboratory.
Grading: Letter grade only.

Advisory: Completion of Theatre Arts 50.

A continuation of supervised practical experience in the preparation and performance of a theatrical production. Requires participation in one of the faculty-directed productions, in either an acting or production role. May be taken four times.

1006.00

54 Summer Repertory (3)

(UC; CSU)

Hours: 144-162 laboratory.
Grading: Letter grade only.

All aspects of theatre production, including fundamentals of play production, stage management, costume, publicity, settings, properties, make-up, and acting. Application of these fundamentals culminates in drama productions presented as a part of the college Theatre Arts Department program for the public. Gives interested community adults, as well as regular college students, an opportunity to participate in the drama program. May be taken four times.

1006.00

56 Children’s Theatre (4) (Cx)

(CSU)

Hours: 48-54 lecture; 48-54 laboratory.
Grading: Letter grade only.

Selection and presentation of a play for children at the elementary or junior high level. May be taken four times.

1006.00

60 Seminar: Acting (3)

(UC; CSU)

Hours: 48-54 lecture.
Grading: Letter grade only.

Limitation on Enrollment: Consent of instructor is required prior to registration.

Seminar for actors who have completed several acting courses or who have had extensive stage training through participation in public performances. Offers the actor an opportunity to examine and perform plays not normally offered in the regular program. May be taken four times.

1007.00

64 History of Costume (3) (Cx)

(Also available as Art 64)

(UC; CSU)

Hours: 48-54 lecture.
Grading: Letter grade only.

Origin and evolution of costume from primitive society to the twenty-first century. Evaluation of aesthetic, technical, sociological, and psychological factors of costume and their relation to modern dress. Student may not receive credit for both Theatre 64 and Art 64.

1007.00

92A-H Special Topics: Theatre Arts (.5-6)

(UC; CSU; UC credit limitations)

Hours: 16-18 hours/term laboratory for each unit of credit.
Grading: Letter grade only.

Special interest lecture course for students who wish further exploration in specific areas of theatre, radio, television, film, or dance. Topics vary and are determined by the instructor; see the schedule of classes for current term emphases. May be taken four times regardless of the unit combination; however, no single-subject, special interest class may be repeated. May require prerequisites and/or corequisites based upon the content of the course.

1007.00

92LA-H Special Topics Laboratory: Theatre Arts (.5-6)

(UC; UC credit limitations)

Hours: 48-54 hours/term laboratory for each unit of credit.
Grading: Letter grade only.

Special interest laboratory course for students who wish further exploration in specific areas of theatre. Topics vary and are determined by the instructor; see the schedule of classes for current term emphases. May be taken four times regardless of the unit combination; however, no single-subject, special interest class may be repeated. May require prerequisites and/or corequisites based upon the content of the course.

1007.00

98A,B,C Independent Study: Theatre Arts (.5-3)

(CSU and UC credit limitations)

Grading: Letter grade only.

Limitation on Enrollment: Instructor signature is required for registration.

Designed for the capable and well-motivated student who wishes to pursue a special area of theatre, or a more advanced project in theatre than is offered in the regular program. Students who participate in this program must have completed introductory courses or have shown a skill greater than that necessary for completion of the class offerings. The nature and extent of the project must be determined by the student and a member of the Theatre Arts staff before the student registers for the class, since the extent of the project determines the number of units allowed. May be taken twice, regardless of the unit combination.

1007.00

427 Computer Aided Design for Set and Interior Design (3)

(Also available as Interior Design 427)

(Degree-applicable)

Hours: 48-54 lecture.
Grading: Letter grade only.

Advisory: Basic familiarity with Macintosh or Windows computers.

Computer aided design using professional software, such as AutoCAD, Rivit, Architectural Desktop, and ArchiCAD. Floor plans, furniture layouts, elevations, lighting plans, 3-D perspectives, and renderings. Use of various printers and plotters. May be taken 3 times.
ATHLETICS

Playing under the name of The Panthers, the men’s and women’s teams compete in the Foothill Athletic Conference. The men’s athletic program offers competition in football, basketball, baseball, track & field, swimming, soccer, and water polo. The women’s athletic program includes competition in basketball, softball, track & field, swimming, water polo, soccer, and volleyball.

ATHLETIC ELIGIBILITY

Chaffey College is a member of the Foothill Conference. Intercollegiate athletic competition is governed by the California Community College Athletic Association (CCCAA).

To be eligible for competition, student-athletes must be enrolled in a minimum of 12 units during the season of sport (9 of those units must be degree/certificate applicable). Between seasons, student-athletes are required to complete 24 units, and maintain a minimum 2.00 GPA. Consult the athletic counselor or coach to determine athletic eligibility and to complete a student educational plan.

ATHLETIC FACILITIES

The Earl Sicosky Gymnasium has a seating capacity of 715. The upper level provides bleachers and a dance room. The women’s locker rooms are located on the west side of the building; the men’s lockers are located on the east side. A new gymnasium is also under construction.

Adjacent to the existing gymnasium are tennis courts, Grigsby Field (4,200-seat stadium with football field and track), Lowder Field (baseball), handball courts, a state-of-the-art softball facility, a strength and conditioning lab, the George Colbath Fitness Lab, and two additional fields for physical education and athletic activities. A swimming pool is immediately south of the gymnasium.

ECONOMIC DEVELOPMENT

WORKFORCE PREPARATION PROGRAM

The Workforce Preparation Program provides short-term training programs that lead to employment. Supportive services offered through this program include: career and educational counseling, CalWORKs work study, job development, job placement, mentoring and internship opportunities for students who are receiving CalWORKs. This program is specifically designed to assist students in developing the skills necessary to obtain employment at self-sufficient wages. This program is also the campus contact for specially funded training programs including WIA (Workforce Investment Act), TRA (Trade Readjustment Act) and WIB (Workforce Investment Board) grants. Please call (909) 652-6049 for additional information.

COMMUNITY EDUCATION AND PROFESSIONAL DEVELOPMENT

Chaffey College endeavors to serve our community by providing continuing education opportunities as well as personal and professional development classes through our Community Education and Professional Development Program. These fee-based classes are designed to respond to community interests and to assist our region’s economic development by strengthening work-related skills. Current Community Education and Professional Development Schedule of Classes are available on the college’s website at www.chaffey.edu. For further information, please call (909) 652-6043.

CONTRACT EDUCATION

Chaffey College is pleased to offer customized training to meet the needs of business and industry within the community. Contract Education services are in line with the California Community Colleges’ mission to advance economic growth, enhance employee performance and increase the return on investment for area business and industry, from large corporations to the small business entrepreneur. Instructors are experienced, with excellent credentials. Programs are low cost and are tailored to business needs. Training typically takes place at the business site and can be arranged around business schedules (all shifts; all days). Consulting services and needs assessments are also available. Please call (909) 652-7791 for further information.

HOUSING

Since the college has no dormitory facilities, students not living at home must make their own arrangements for housing. Chaffey College assumes no responsibility for the inspection or approval of student housing.

As a service to students, the Student Activities Office in Campus Center East maintains a bulletin board with listings from community members of available housing to be found in the nearby communities. Listings include room and board, rooms only, roommates, rooms with kitchen privileges, apartments, houses, and opportunities to work for free room and board. Rental rates vary.

PUBLICATIONS

The Breeze is the official student publication on campus. Published twice a month, the newspaper is written and edited by students enrolled in Newspaper Production, Journalism 61ABC.

The Student Handbook, available at no charge, and other publications including information about the programs and services of the college are also available in the Office of Student Activities or accessed online at www.chaffey.edu/students/student_handbook.pdf

STUDENT ACTIVITIES

The Office of Student Activities promotes events and coordinates programs that provide students with an opportunity for educational and social growth outside the classroom. Services for students include the publication of a Student Handbook, the Dean’s Honor List, graduation, annual spring scholarships, numerous cultural events, special attraction ticket sales, emergency book grants, lecture series, information on student organizations, student government, community service projects, and a housing bulletin board.

The Office of Student Activities is located in Campus Center East (CCE) on the Rancho Cucamonga Campus. Office hours for fall/spring semesters are:

Monday - Thursday
8:00 a.m. to 6:00 p.m.
Friday: 8:00 a.m. to 4:00 p.m.

Students may contact the Office of Student Activities at (909) 652-6589.

ASSOCIATED STUDENTS

Every currently enrolled credit-class student belongs to the Associated Students of Chaffey College (ASCC), which is governed by the Campus Council. With a membership composed of seventeen representative Chaffey students, the Campus Council is comprised of two bodies: an Executive body and the Senate. The President of the ASCC serves in the dual role of Student
Trustee who serves as liaison between the Chaffey College Governing Board and the student population. The Campus Council holds weekly meetings throughout the academic year. The ASCC campus-wide activities and the Inter-Club Council are supported through the College Services Fee.

CLUBS AND ORGANIZATIONS
The Office of Student Activities and the Inter-Club Council oversee the activities of all clubs and organizations which have renewed their charters for the current school year, via the submission of annually required forms. Organizations are professional or vocational while others are recreational, cultural, religious, or service-oriented. All student organizations are administered by students for the benefit of students with the assistance of the Office of Student Activities. Each organization is required to have a full-time faculty/staff advisor to be chartered by the Chaffey College District. Clubs and organizations that have been chartered are:

- AMAN/AWOMAN
- Anime Club
- Associated Press Club
- Associated Students of Chaffey College (A.S.C.C.)
- Astronomy and Planetary Science Club
- Ceramics Club
- Chaffey Art Organization
- Chaffey College Car Club
- Chaffey Paralegal Society
- Chaffey Republicans
- Changing the Globe
- Child Development Club
- Chemistry Club
- Christians at Chaffey College
- Computer Club
- Future Teachers Club
- Gay Straight Alliance
- Global Dance Club
- HACU Club
- International Students
- Kappa Sigma Nu
- Mariachi Club
- Montclair Associated Students for Success
- Muslim Student Association (MSA)
- Philosophy & Religious Studies
- Practical Applications for Gaming in Education (P.A.G.E.)
- Spanish Club
- Students 4 Change
- Student Vocational Nurses Club
- Tax, Accounting, and Business Society (T.A.B.S.)
- The Chaffey Review
- The Pagan Society
- The Social Awareness Society
- Together Plus Club

STUDENT SERVICES

ADMISSIONS AND RECORDS OFFICE
The Admissions and Records Office provides numerous services to students and members of the community. The office provides general information about the college and accepts applications for admission. Students register, add, and drop from classes through this office. Transcripts, credit by examination, and enrollment verifications are all issued via this office. Transcript requests can be made via Chaffey’s website at www.chaffey.edu. Enrollment verification requests can be made in person or through Chaffey’s website. For more information on transcript and enrollment verification requests including fees, please visit our website at www.chaffey.edu or see the schedule of classes. For information on credit by examination, please see “Credit by Examination”.

The Admissions and Records Office maintains grade reports, student academic records, courses taken, units attempted, units earned, grades, grade points, graduation dates, military credit, non-credit enrollment and other data, and prepares class roll sheets, diplomas, and certificates. Community services academic history is only maintained from Fall 1999 forward. The Admissions and Records Office provides photo ID services during specific business hours. Veterans Services is also located in the Admissions and Records Office.

BOOKSTORE
The Bookstore in Campus Center East is open throughout the year for the convenience of students in obtaining textbooks and supplies needed for classes. Textbooks can be ordered on our website http://books.chaffey.edu. Chaffey clothing, gifts, novelties, and other items of interest are also available. The bookstore provides several services for students. These include fax service, UPS mailing service, Omni bus passes, special book order service, postal stamp service, and ATM service.

CAFETERIA
The Cafeteria in Campus Center West is located across from the bookstore. There are a variety of food and drink choices available. You may order from the grill, Taco Bell Express, or create your own salad from the salad bar. Throughout the year the cafeteria is open Monday through Friday.

CHILD DEVELOPMENT CENTER
The Chaffey College Child Development Center located at the Rancho Cucamonga Campus provides low cost, high quality child care services for children.

The Center is licensed by the State of California, Title 22, and provides subsidized childcare services through the State Department of Education, Child Development Divisions, Title V funding. Parents who are eligible for free or reduced child care services will pay fees according to a sliding fee scale provided by the State Department of Education. The maximum group size in the preschool program is 24 children and the adult/child ratio is 1:8. The maximum group size in the toddler program is 12 children. The adult/child ratio is 1:4. The Center has an open door policy which encourages all parents to participate in the Center classrooms.

The Child Development Center welcomes all children regardless of sex, race, religion, ethnicity, national origin or ability. The curriculum is based on interest and individual needs of the children and provides a flexible framework to support the growth of each child. Child care services are offered to students, staff, faculty and community families. The Center is open Monday through Friday 7:00am to 5:00pm.

The Child Development Center’s mission is:

- To provide high quality, developmentally-appropriate child care and educational experiences to children
- To support Chaffey College students in their educational and vocational goals
- To provide training and employment to individuals seeking careers working with children and families

Through the apprentice program, the Chaffey College Child Development Center offers employment opportunities to students enrolled in child development classes. The purpose of the apprenticeship program is to help students gain work experience and obtain a child development permit required for employment in state and federally funded programs. Employment applications are available online at www.chaffey.edu/childctr/index.shtml or at the Child Development Center. Employment applications are accepted throughout the semester.

Students enrolled in various child development courses may complete their assignments in the Child Development Center program. Pediatric Nursing, Psychology, and Food Service Management courses utilize the Child Development...
Center as a field of placement site. For information on fees, enrollment procedures, or job openings please call (909) 652-6865.

COUNSELING DEPARTMENT
The Counseling Department offers students information on all academic and vocational programs at Chaffey College. Counseling services include assessment and orientation for new students, how and when to prepare for transfer to a four-year college or university, evaluation of course work taken at other colleges, applications for graduation and for certificates, processing of waivers and petitions and referrals to other agencies on campus and in the community. The Counseling Department offers valuable resources for students’ questions and concerns.

For information regarding services available relating to career planning, see the heading “Global Career Center.”

The Chaffey College Chino and Fontana Campuses are also staffed with counselors who provide educational, career, and personal counseling. For more information contact the Chino Campus at (909) 652-7750 or the Fontana Campus at (909) 652-7400.

DISABILITY PROGRAMS AND SERVICES (DPS)
Chaffey College maintains a strong commitment to serving people with all types of disabilities who desire postsecondary education. The goal of DPS is to provide equal access to education for those students. DPS emphasizes independence and self-reliance, while encouraging the students to become active members of the college community; this active role will foster successful integration into four year colleges/universities and career employment. Participation in DPS is voluntary, and conducted with strict confidentiality. Students are expected to make measurable progress toward their educational goals in order to remain in the program. The array of support services includes, but is not limited to:

- Individual educational planning
- Assistive Technology Center
- Academic/vocational counseling
- On-campus transportation
- Adapted parking spaces
- Campus orientation
- Priority registration
- Course substitution assistance
- Adaptive equipment
- Print enlargement
- Alternative media
- Test-taking facilitation
- Reader and note taking services
- Liaison and referral services
- Counseling

- Testing for possible inclusion in Learning Disabilities Program
DPS makes alternate formats of instructional text and video available to qualified students. Formats available are Braille, Electronic Text (E-Text), and Closed Captioning. Students needing an alternate format text or video that is required for a course in which they are or will be enrolled should contact the DPS Office as soon as the need is known, as specific requirements and lengthy acquisition timelines apply. Students are strongly encouraged to also meet with their instructors to determine accessibility of the course material.

In accordance with Section 508 of the Rehabilitation Act of 1973, as amended 29 U.S.C § 792(d), closed captioning of DVDs/videos is available whenever a student has a need and a captioned version cannot be purchased through the publisher. After permission has been granted by the publisher, one captioned copy of the video will be made in accordance with the appropriate protocols for video captioning and made available to the instructor of the course. The closed captioned instructional video cassettes in the Chaffey College Library video collection have been identified with closed captioning labels on the slipcase. There is a closed captioned note in the bibliographic record for every title; these records appear in the catalog and the catalog is accessible online at www.chaffey.edu.

DPS also offers specialized classes to meet the specific needs of students with disabilities. Courses are based on individual student need and may include the following:

- Cognitive retraining
- Guidance
- Self-Advocacy
- Basic Academic Skills
- Assistive Technology
- Study Skills

The DPS Office is currently located in Campus Center West (CCW) at the Rancho Cucamonga Campus. The hours are:

Monday through Friday
7:30 a.m. - 4:30 p.m.

DPS counselors also are available at the Chino and Fontana campuses. Appointments can be made at any location by calling (909) 652-6379. The toll free number for the California Relay Service is 1-800-735-2926. For more information, visit the DPS website at www.chaffey.edu/dps.

In addition to the above facilities and services, Chaffey College offers a program for students with disabilities located off-campus at the Learning Development Center. The goal of this program is to provide an academic and transitional work program for students leading to competitive employment. The academic component focuses on, but is not limited to, the following subjects:

- Vocational skills training
- Career exploration and preparation
- Job-seeking skills
- Employment applications
- Resume writing
- Interview techniques
- Work attitudes
- Job placement
- Job retention
- Job club

Vocational skills classes are used as a means to teach, observe, and assess appropriate work behaviors, responsibility, speed, accuracy, stamina, and other skills necessary for successful job placement.

Interested persons are invited to phone the Learning Development Center at (909) 652-6765 or visit the facility located at 9375 Ninth Street, Rancho Cucamonga, CA 91730.

DPS also offers an instructional program in basic life skills for individuals with developmental disabilities who are employed at Diversified Industries, a supported work environment located in Montclair. For further information regarding this program, please contact the DPS Office at (909) 652-6379 or Diversified Industries at (909) 882-4090, ext. 21.

EXTENDED OPPORTUNITY PROGRAMS AND SERVICES (EOPS)
The Extended Opportunity Programs and Services (EOPS) office is located in the north side of the Campus Center West Building (CCW). EOPS is a state-funded program intended to provide support services to financially and educationally disadvantaged students. Program participants are eligible for priority registration, academic and personal counseling, peer advisement, and assistance buying books. Bilingual staff members are available to assist students who speak limited English. Additional benefits and services are available through the CARE program to EOPS students who are single parents with children under fourteen years of age and receiving public assistance.

Further information and eligibility requirements may be obtained by calling the EOPS office at (909) 652-6349.
GLOBAL CAREER CENTER (GCC)
It is extremely important for students to make educated and informed career decisions in this global economy. Professional career counselors are available in the Global Career Center (GCC), located in the Campus Center East Building (CCE) between Student Activities and the Bookstore, to assist Chaffey College students and members of the community in formulating their career goals by assessing their interests, aptitudes, values and personality type to help them make their career choices. The GCC also provides workshops regarding interview techniques, resume writing, career networking opportunities and a career resource library. Several career and personality assessments are available online through the Global Career Center website at www.chaffey.edu/gcc. The Myers-Briggs Type Indicator personality assessment is also available for a fee. To make a comprehensive career counseling appointment, contact the Global Career Center at (909) 652-6511.

LEARNING AND EDUCATIONAL DEVELOPMENT
The Learning and Educational Development (LED) program is assists non-credit students transitioning into credit courses. The purpose of this academic support is to encourage students to complete a certificate program, an associate degree, and/or transfer to a four-year university. LED is a student support service working in conjunction with the Chaffey College Success Centers.

Students may contact the program office at (909) 652-7407 for further information, location, hours of operation, and appointments.

LIBRARY/CYBRARY
The Library on the Rancho Cucamonga Campus and the Cybrary on the Chino Campus provide services and resources to maintain effective learning programs and to empower the diverse student population to persist toward successful goal achievement. We provide reference assistance and navigation to information location and retrieval through book, periodical, video, and electronic resources; these resources are carefully chosen to meet the educational and cultural needs of the Chaffey College student. The goal of the program is for student learners to leave the library with the information literacy and critical thinking skills they will use as they transfer to upper division university programs or to the pursuit of careers throughout their working lives.

The Library and Cybrary provide the following resources and services to students, faculty, and staff:

- Research/reference center with access to the Internet, electronic indexes, and full text services
- An information access/instruction center for bibliographic instruction sessions and workshops
- Assistance from reference librarians in the use of library resources in all formats
- An interactive learning center with study tables
- A quiet study/reading room with individual carrels and group study rooms
- A print collection of books, magazines, and journals (at the Rancho Library only)
- A book request service whereby students can request items in the circulating collections at the Rancho Library to be sent to the Cybrary for pickup
- An instructional video collection (at the Rancho Library only) that has been digitized and is accessible at Chaffey networked terminals in Rancho Cucamonga and Chino
- A reserve book collection
- An online reserve collection
- Photocopiers
- Access 24 hours a day, 7 days a week to online databases

Also located in the Library is an interdisciplinary writing center for tutoring and mini-classes in writing skills.

You may contact the Library on the Rancho Cucamonga campus at (909) 652-6800. The Chino Campus Cybrary can be contacted at (909) 652-3115. You may also check the website at www.chaffey.edu/library for current hours.

STUDENT EMPLOYMENT SERVICES
The Student Employment Office provides job referral, internship referral, cooperative education referral, and personnel services to current and former Chaffey College students.

1. Job Referral Services
This office cultivates and maintains extensive on-campus, local, out-of-state, and international job listings. To further assist Chaffey students, this office arranges for recruiters from various companies, organizations, and institutions to hold open recruiting sessions on-campus. Student Employment is always available to answer resumé and interview technique questions.

2. Internship Referral Services
Student Employment offers assistance in securing paid and non-paid internships. Internships are the best way to obtain in-the-field experience required by the majority of today’s employers. Those wishing to work an internship must also be registered for the appropriate Cooperative Education class.

3. Cooperative Education
The Cooperative Education program makes it possible for existing jobs and/or internships to work for the student by earning elective units. This is the best way to bridge the gap between classroom and workplace.

4. Personnel Services
Student Employment is the personnel office for all on-campus student positions. All new student employees must complete their personnel documents and submit them to this office prior to their first day of work. This office is also happy to assist in providing employment verifications and in addressing any personnel concerns that might arise.

The Student Employment Office is located in Campus Center East (CCE) on the Rancho Cucamonga Campus, in the Global Career Center.

Monday-Thursday
8:00 a.m. - 5:00 p.m.
Friday
8:00 a.m. - 4:30 p.m.
Evenings by appointment

Students may contact the Student Employment Office at (909) 652-6511 to schedule an appointment or to confirm office hours.

STUDENT HEALTH SERVICES
Student Health Services is dedicated to assisting students achieve and maintain optimum physical, mental, and emotional health. We are committed to providing quality health care at a reasonable cost.

The Student Health Services team is made up of medical doctors, nurse practitioners, registered nurses, counselors, secretaries, student educators, and student assistants who are trained to assist you with medical information and problems in a professional and confidential manner. Services include first aid, treatment for minor illnesses, health examinations, birth control, family planning, T.B. testing, laboratory testing, consultation regarding health problems, individual and group psychological counseling, and video cassettes and handouts on numerous topics.

Student Health Services is supported by the health fee paid at the time of registration. There is no charge to consult/visit the office staff including the medical doctors and nurse practitioners. There are, however, minimal fees for additional services, such as lab tests, immunizations, and prescription medications.
Your medical records and all discussions with the student health services staff are completely confidential. Records are only released with written consent of the student, unless required by law.

Students are encouraged to visit the office, located in Campus Center West (CCW) at the Rancho Cucamonga Campus. Usual clinic hours are:

**Monday - Thursday**
7:30 a.m. to 4:30 p.m.

**Friday**
7:30 a.m. to 4:30 p.m.

For more information or to schedule appointments, call (909) 652-6331.

**STUDENT SUCCESS CENTERS**

As part of the Basic Skills Transformation initiative, Chaffey College created Student Success Centers. The Centers offer tutorials, workshops, learning groups, and computer access to assist students in their academic development and success.

Discipline-specific centers are designed to help students with particular subject area courses and skills. Multidisciplinary Centers are set up to serve students in all subject disciplines. Hours for each Success Center are listed in the schedule of classes. Students may also contact the Success Centers by visiting or calling. The location and telephone number for the Success Centers are listed below.

**MATH SUCCESS CENTER**
Room PS-12 • (909) 652-6452

**LANGUAGE SUCCESS CENTER**
BEB Building, 1st Floor • (909) 652-6906

**MULTIDISCIPLINARY/READING SUCCESS CENTER**
BEB Building, 1st Floor • (909) 652-6932

**WRITING SUCCESS CENTER**
Library • (909) 652-6820

**Chino Success Center**
CHMB-145
(909) 652-8150

**Chino Reading/Writing Success Center**
CHMB-240
(909) 652-8160

**Fontana Success Center**
FNFC-122
(909) 652-7408

**TRANSFER CENTER**
The Transfer Center provides information and resources to help students continue their education after Chaffey College. The center maintains a library of college catalogs and reference material, provides access to the internet and specialized software programs for college research and applications, hosts college representatives for individual appointments with students, sponsors transfer-related workshops, and schedules campus visits and college fairs. All services are free and available to any Chaffey student.

The Transfer Center staff welcomes the opportunity to assist students considering transfer to four-year colleges. The center is located in the Student Services/Administration Building, Room 120 on the Rancho Cucamonga Campus. Usual office hours are 8:00 a.m. to 7:00 p.m. Monday through Thursday and 8:00 a.m. to 4:30 p.m. on Fridays. More information can be obtained by calling (909) 652-6233 or visiting the Transfer Center on Chaffey’s website www.chaffey.edu.
POLICIES AND REGULATIONS

ACADEMIC INTEGRITY (CHEATING)

Integrity is an essential component of the student academic experience. The academic evaluation a student receives for a course becomes a permanent college record and it is critical that such records be accurate and consistent. The integrity students learn and exhibit at the college will be a model for the professional integrity they practice when they complete the college work. Accordingly, Chaffey College has classified academic dishonesty into the following categories:

- Cheating
- Plagiarism
- Unauthorized Collaboration
- Facilitating Academic Dishonesty
- Interference or Sabotage
- Fabrication
- Retaliation

The entire policy is available in the Student Handbook and can be obtained in the Office of the Vice President of Instruction and Student Services (909) 652-6500 or can be accessed online at www.chaffey.edu/stuactiv/student_handbook.pdf.

COMPUTER USE

Chaffey College owns and operates a network and a variety of computer systems for use by its faculty, students, and staff. Chaffey College encourages the use of its network and computer systems for education, academic development, and other approved purposes. When using Chaffey College network and computer systems, all users are required to abide by the policy established by the Governing Board and the associate procedures and to use the system in an ethical and lawful manner.

Chaffey College does not currently block access to the Internet to students without a student ID card. Chaffey College reserves the right to employ filters and/or software to limit access to undesirable sites and/or unsolicited materials.

DECLARACIÓN DE OPORTUNIDAD EQUITATIVA

Política de Hostigamiento y de Indiscriminación
El distrito del Colegio Comunitario Chaffey se compromete a proporcionar oportunidades equitativas para educación y empleo. El distrito otorgará un justo y igual trato a estudiantes y empleados prohibiendo la discriminación en su admisión, acceso y trato en los programas y actividades del colegio basada en la raza, el color, el grupo étnico, el origen nacional, la ascendencia, la religión, el credo religioso, el género sexual, la inhabilidad física o mental, la condición médica (incluyendo el cáncer), la edad, el estado civil, la orientación sexual, o el estado como veterano de la guerra de Vietnam.

El distrito ofrece oportunidades académicas, laborales y extracurriculares equitativas sin importar en género del individuo. El distrito, autorizado bajo las leyes federales para matricular a estudiantes extranjeros, y en concordancia con las regulaciones del título V, afirma que la falta de dominio de la lengua inglesa no será una barrera para la admisión y la participación en los programas del distrito.

Las oficinas del programa de inhabilitados (DPS) proveen servicios de apoyo para estudiantes con incapacidades. Si necesita información acerca de los servicios para estudiantes, contacte (909) 652-6379 o TDD/TTY (909) 466-2829. Los empleados (el profesorado o el personal administrativo) que requieran adaptaciones especiales deben contactar la oficina del director de recursos humanos, Lisa Bailey (909) 652-6532.

El acoso sexual debe ser denunciado inmediatamente al oficial designado por el distrito, Lisa Bailey, directora de la oficina de Recursos Humanos en Chaffey College, 5885 Haven Av., Rancho Cucamonga, CA 91737-3002; teléfono (909) 652-6532. También puede contactar a cualquier decano, director o gerente para ser reportado en seguida al oficial designado por el distrito. Si tiene una pregunta o una queja, contacte al oficial mencionado en este párrafo. Se hará todo lo posible por guardar la más estricta confidencialidad del caso.

El Decreto de 1990 para Americanos con Inhabilidades
Este decreto prohíbe la discriminación contra aquellas personas que tienen una incapacidad cuando solicitan empleo o servicios públicos incluyendo transporte privado o pública, y servicios de adaptación y telecomunicaciones.

POLÍTICA DE HOSTIGAMIENTO SEXUAL

La política del distrito del Colegio Comunitario Chaffey es proveer a todos sus estudiantes y empleados de un ambiente laboral y educacional libre de todas las formas de acoso, explotación, intimidación o insinuaciones sexuales, requerimientos de favores sexuales o todo tipo de conducta verbal, visual o física como se define y prohíbe por el Acta de Empleo Justo de California, el Código Educacional de California, las regulaciones estatales o federales y las leyes específicas que prohíben el acoso sexual.

El distrito se opone rotundamente al acoso sexual y prohíbe que sus estudiantes y empleados sean hostigados por el profesorado, gerentes, supervisores, empleados, otros estudiantes o miembros del público en general. El colegio tomará cualquier acción para prevenir, corregir – y si es necesario – disciplinar la conducta inapropiada. Si se consigue evidencia del acoso sexual, al personal apropiado (profesorado, empleados o estudiantes) se le aplicará el rigor de la ley en acuerdo con el código educacional de California.

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El acoso sexual debe ser denunciado inmediatamente al oficial designado por el distrito, Lisa Bailey, directora de la oficina de Recursos Humanos en Chaffey College, 5885 Haven Av., Rancho Cucamonga, CA 91737-3002; teléfono (909) 652-6532. También puede contactar a cualquier decano, director o gerente para ser reportado en seguida al oficial designado por el distrito. Si tiene una pregunta o una queja, contacte al oficial mencionado en este párrafo. Se hará todo lo posible por guardar la más estricta confidencialidad del caso.

El Decreto de 1990 para Americanos con Inhabilidades
Este decreto prohíbe la discriminación contra aquellas personas que tienen una incapacidad cuando solicitan empleo o servicios públicos incluyendo transporte privado o pública, y servicios de adaptación y telecomunicaciones.

Las oficinas del programa de inhabilitados (DPS) proveen servicios de apoyo para estudiantes con incapacidades. Si necesita información acerca de los servicios para estudiantes, contacte (909) 652-6379 o TDD/TTY (909) 466-2829. Los empleados (el profesorado o el personal administrativo) que requieran adaptaciones especiales deben contactar la oficina del director de recursos humanos, Lisa Bailey (909) 652-6532.

BEHAVIOR CODE

All members of the Chaffey College community are expected to behave in an ethical and moral fashion, respecting the human dignity of all members of our community and resisting behavior that may cause danger or harm to others which shall include, but not limited to, violence, theft, or bigotry. All members of the Chaffey College community are expected to observe established standards of scholarship and academic freedom by respecting the intellectual property of others and by honoring the right of all students to pursue their education in an environment free from harassment and intimidation. The entire policy is printed in the Student Handbook and can be obtained in the Office of the Vice President of Student Services (909) 652-6500, or by visiting our website at www.chaffey.edu/stuactiv/student_handbook.pdf.
Sección 504
En concordancia con la sección 504 del decreto de Rehabilitación, el colegio Chaffey se atiene a la regulación que “ningún individuo incapacitado” deberá ser excluido de participar en los programas y los servicios ofrecidos por la institución “sólo por estar inhabilitado.” La doctora Pelzer, encargada oficial del decreto 504, puede proveer información y responder preguntas relacionadas al acceso para estudiantes inhabilitados. La doctora Pelzer se localiza en Chaffey College 5885 Haven Av., Rancho Cucamonga, CA 91737-3002; teléfono (909) 652-6457.

Disciplinary and Grievance Appeal Procedures
Procedures for grievance appeal hearings are found in the Student Handbook. Copies of the Student Handbook are available in the Student Activities Office. Student grievance policy and procedure guidelines are available in the Office of the Vice President of Instruction and Student Services, (909) 652-6500.

Open Courses
It is the policy of this district that, unless specifically exempted by statute, every course, course section or class, the average daily attendance of which is to be reported for state aid, wherever offered and maintained by the district, shall be fully opened to enrollment and participation by any person who has been admitted to the College and who meets such prerequisites as may be established pursuant to Article 2.5 (commencing with Section 55200) of Subchapter 1 of Chapter 6 of Division 6 of Title 5 of the California Code of Regulations.

Regulations and Student Compliance
Civil law and district policies give the college student a number of rights on campus that non-students do not enjoy. Similarly, the body of people who work and go to classes at Chaffey do so in the spirit of community, a fact which imposes responsibilities of college citizenship.

The Governing Board of Chaffey College has established rules and regulations governing the behavior of students and penalties for violations thereof, as required by the California Education Code Section 22635 of every community college.

Students are responsible for compliance with the regulations published in this catalog, in the Schedule of Classes, in the Student Handbook, and departmental rules and regulations. Student clubs are responsible for compliance with the Club Handbook.

Smoking Policy
Smoking of any form of tobacco or non-tobacco products is prohibited inside of any building, including restrooms and corridors; within 20 feet of a main exit, entrance, or operable window of any college-owned, leased, or operated buildings; and in any college-owned, leased, or operated vehicles.

Statement of Equal Opportunity
Non-Discrimination and Prohibition of Harassment Policy
The Chaffey Community College District is committed to providing equal educational and employment opportunity. The District affirms its commitment with policies that include fair and equitable treatment of students and employees, and prohibits discrimination in its admission, access, and treatment in College programs and activities, and application for and treatment in College employment on the basis of race, color, ethnic group identification, national origin, ancestry, religion, religious creed, sex, physical or mental disability, medical condition (including cancer), age, marital status, sexual orientation or status as a Vietnam era veteran.

In accordance with Title IX regulations, the District offers equal academic, occupational, and extracurricular opportunities regardless of the sex of the individual. The District, authorized under federal law to enroll non-immigrant and alien students, and, in accordance with Title V regulations, affirms that the lack of English language skills will not be a barrier to admission and participation in the District’s programs.

Persons who seek information and/or resolution of alleged acts of unlawful discrimination, retaliation, or harassment are directed to contact the District’s Compliance Officer, Lisa Bailey, Executive Director of Human Resources, Chaffey College, 5885 Haven Avenue, Rancho Cucamonga, CA 91737-3002; telephone (909) 652-6532.

Sexual Harassment Policy
It is the policy of the Chaffey Community College District to provide for all students and employees, an educational, employment, and business environment free of all forms of harassment, exploitation, intimidation, or unwelcome sexual advances, requests for sexual favors, and other verbal, visual, or physical conduct or communications of a sexual nature as defined and otherwise prohibited by the California Fair Employment and Housing Act, California Education Code, and State and Federal rules, regulations, statutes and laws prohibiting sexual harassment and retaliation.

The District is strongly opposed to sexual harassment and expressly forbids sexual harassment of its students and employees by faculty, managers, supervisors, employees, other students or members of the general public. The College will take whatever action may be needed to prevent, correct, and, if necessary, discipline inappropriate behavior. Where evidence of sexual harassment is found, appropriate personnel (faculty, non-faculty, or student worker) or student disciplinary action shall be taken, in accordance with the California Education Code.

Sexual harassment shall be immediately reported to the District’s Compliance Officer, Lisa Bailey, Executive Director of Human Resources, Chaffey College, 5885 Haven Avenue, Rancho Cucamonga, CA 91737-3002; telephone (909) 652-6532, or to any dean, director, or manager for immediate reporting to the District’s Compliance Officer, or designee. Every effort will be made to ensure that confidentiality is maintained.

Academic Freedom
The District is committed to academic freedom, but recognizes that academic freedom does not allow sexual harassment or any other form of unlawful harassment or discrimination. The lecture, content, and discourse that are an intrinsic part of the course content shall, in no event, constitute sexual harassment or other form of unlawful harassment or discrimination. It is recognized that an essential function of
education is a probing of received opinions and an exploration of ideas that may cause some students discomfort. It is further recognized that academic freedom ensures the faculty’s right to teach and the student’s right to learn. Finally, nothing in this policy shall be interpreted to prohibit bona fide academic requirements for a specific program, course or activity.

**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 Disability Programs and Services. Anyone needing information about services for students with a disability should contact this office at (909) 652-6379 or TDD/TTY (909) 466-2829. The toll free numbers for the California Relay Service are 1-800-735-2929 or 1-877-735-2929 for TDD/TTY users. Employees (faculty, non-faculty, or student worker) requiring accommodations should contact the Executive Director of Human Resources, Lisa Bailey, at (909) 652-6532.

**Section 504—Rehabilitation Act**
In accordance with Section 504 of the Rehabilitation Act, Chaffey College abides by the regulation that “no otherwise handicapped individual” shall be excluded from participation in programs and services offered by the College “solely by reason of the handicap.” Dr. Inge Pelzer, 504 Compliance Officer, can provide information and answer questions regarding access for disabled students. She may be reached at Chaffey College, 5885 Haven Avenue, Rancho Cucamonga, CA 91737-3002; telephone (909) 652-6457.

**STUDENT PRIVACY RIGHTS AND ACCESS TO RECORDS**
In accordance with the Family Educational Rights and Privacy Act (FERPA), Chaffey College does not release student record information without the written consent of the student or under judicial order, except:

A. To officials and employees of the District who have a legitimate educational need to inspect the record.
B. To a member of the college’s Governing Board.
C. To a person employed by, or under contract to, the District to perform a special task, such as an attorney or auditor.

The law allows the College to release student directory information, except when students have specifically requested that directory information be kept confidential. Directory information may be released by exception upon determination of the Superintendent/President, the Vice President of Student Services, or the Director of Admissions and Records that such release is appropriate and not likely to put students at risk.

Chaffey College designates the following as directory information: name, address, phone number, dates of attendance, major field of study, awards and degrees received, most recent institution attended, participation in official college activities and sports, weight and height (for members of athletic teams), and part-time and/or full-time enrollment status. Students must specifically request non-release of their directory information by submitting a Student Update Form. Student Update Forms are available on the Chaffey website at www.chaffey.edu or in the Admissions and Records Office. Requested actions will be effective within 5 working days.

**SUBJECT TO CHANGE**
All Chaffey College policies, regulations and courses are subject to change without notice at the discretion of the Governing Board.

**STUDENT RIGHT-TO-KNOW**
In accordance with the Code of Federal Regulations, Title 34, Part 668, Sections 668.41 through 668.46 (the “Student Right to Know” Act), institutions participating in any Title IV, HEA program shall make available to current and prospective students, and high school counselors, the completion and transfer-out rates of first-time, full-time, degree-seeking students who entered the institution on or after July 1, 1996. This information will be posted in all Chaffey College Student Service Offices, and is currently available at http://srtk.cccco.edu/index.asp.

**TRAFFIC AND PARKING REGULATIONS**
Any motor vehicle classified as such under California State law and parked on the Rancho Cucamonga, Chino, or Fontana Campuses between the hours of 7 a.m. to 11 p.m. Monday through Friday and 7 a.m. to 3 p.m. on Saturday must display a valid parking decal or parking permit. Permits are not required on Sunday.

Parking decals may be purchased at the Rancho Cucamonga, Chino, or Fontana Campuses. Daily parking permits are purchased at dispensers located in parking lots throughout the campus. Vehicles not displaying a valid parking decal or daily parking permit are subject to citation for violation of the Chaffey College District policy, Chapter 7, Paragraph 7.8.17.

No person who has been issued a parking permit shall give, lend or allow any person to use such permit to obtain parking privileges to which he or she is not entitled.

In compliance with California State law, each owner/operator of vehicles operated or parked on Chaffey College property is required to possess a current valid driver’s license and current proof of insurance. Each such owner/operator shall furnish this license and proof of insurance to any peace officer/Campus Police Officer/representative upon request.

All persons driving vehicles on the campus are required to comply with the traffic laws of the State of California (Reference: Vehicle Code, Section 670, 21113).

Maximum speed limit on campus is 25 miles per hour, and the maximum speed limit in the parking lots is 15 miles per hour.

No vehicles will be driven on sidewalks, footpaths, lawn, patio or court areas except by special permission of the Chaffey College Department of Public Safety (Reference: Vehicle Code, Section 21113).

Barriers, fences, or posts may be placed at any point deemed necessary for safety or convenience. Removal of these barriers, fences, or posts is grounds for issuance of a citation.

Parking is permitted only in spaces specifically marked, and is prohibited in loading zones, posted areas, or along red curbs. Areas that are not clearly marked for parking are designated as “No Parking” areas.

Back into parking stalls or taking up more than one parking stall is prohibited. Reserved parking spaces may be used only by vehicles displaying a reserved parking permit. Citations will be issued to those in violation.

Students with physical disabilities must purchase and display a campus parking decal for their vehicle. They may park in specially marked locations, identified by blue ground markings and/or a blue sign. If parked in these locations, they must also display either the DMV handicapped placard, or a permit obtained from the Disability Programs and Services Office.
Facility rental procedures and fees may be obtained from the Facility Rentals Office at (909) 652-6182.

**POLICY OF FREE SPEECH:**
**TIME, PLACE, AND MANNER**
The purpose of Chaffey College's policy of Free Speech: Time, Place, and Manner is to support the freedom of assembly and freedom of expression as guaranteed by the Constitution of the United States. Fundamental to these guarantees are the rights of free speech and peaceful assembly. It is also a core education value. Students and other members of the college community shall be free to express their views or to support causes by orderly means that do not disrupt the regular and essential operations of the college. In addition, the college requires members of the community to conduct their expressive activities in a manner that promotes and maintains freedom from intimidation, exploitation, or harassment and does not threaten health or safety. (Education Code Section 76120. Chaffey Procedure 5.6 Speech: Time, Place, and Manner.)

**DISTRIBUTION OF LITERATURE**
Permission for distribution of literature on campus is obtained from the Student Activities Office. The following kinds of literature may not be distributed or displayed without the consent of the Student Activities Director: literature advertising off-campus activities sponsored by an individual or group not connected with the college; literature for which there is a charge or donation required or requested, either explicitly or implicitly; literature whose legality is in question. No literature may be displayed or distributed which solicits funds except with the approval of the Student Activities Office. Soliciting is not encouraged. Advertisements by non-student parties are directed to the student newspaper, The Breeze.

Literature which is not in conflict with the above stipulations may be posted and otherwise displayed in the Campus Center complex, and the bulletin boards immediately adjacent to them in the patio area and the Campus Center Student Free Speech Area. Students or student groups wishing to post in other areas of the campus should confer with the Student Activities Office for the policies and procedures governing the areas. No literature may be taped or otherwise affixed to a painted or glass surface. Some bulletin boards in the Campus Center complex have been designated to serve specific functions. When in doubt, the student should contact the Student Activities Office. No flyers may be posted on cars!

**COLLECTION AND RAISING OF FUNDS**
Students or faculty members may not be solicited to contribute funds to any organization which is not directly under the jurisdiction of Chaffey College without the express permission of the college administration.

Likewise, no non-student group or individual may collect funds on campus or have campus groups collect for them on campus without prior approval of the college administration.
Daniel Loomis

The road Dan travelled to get to the stage today was nothing less than circuitous. As a self-professed kindergarten dropout, Dan’s parents fought an uphill battle just getting him to go to school every day. Aside from whatever class the public school system offered that ended with the word “shop” i.e. metal, wood, auto, etc., Dan had little use for or interest in school.

In High School Dan set records for truancy that still stand at Upland High today. Upon his graduation, his counselor simply said, “Thank God.” With diploma in hand and a promise of “rent if you don’t go” ringing in his ears – Dan enrolled as a student of Chaffey College in 1981.

One of the first classes Dan enrolled in was Modern U.S. History with Dr. Barbara Mitchell. One day when she was leaving class she turned around, got right up into Dan’s face, and asked him, “What are you going to do with your life?” Without missing a beat Dan said, “I’m going to be a Professor of History – I tell good stories too.” Dan recalls of his initial experience at Chaffey, “I flunked some of the best teacher’s classes on campus – right before I dropped out.”

As a college dropout, Dan worked at many different jobs. He worked as an aerobics instructor, a bouncer, a plumber, an electrician, and a waiter at Bobby McGee’s where he worked in costume as Ali Baba. Although these jobs were rewarding, Dan could not help but feel like he had missed something in his life. One day he decided that the thing he had missed was that he never had really given school and learning in an academic setting a chance.

In 1987, Dan returned to Chaffey, met with a counselor, declared a major, and returned to the teachers that he had connected with before he left, Chuck Cargill and Barbara Mitchell. For the next two quarters, Dan made the Dean’s List and then transferred to Cal State San Bernardino. Dan graduated from CSUSB in 1990 with a Bachelor’s Degree having studied Modern U.S. and Asian History. Two years later, he graduated with highest honors from Cal State Fullerton. His Master of Arts carried a dual emphasis on Modern European and U.S. History. Since then Dan has continued his studies at the University of California, Riverside where he has begun to branch out into graduate course work synthesizing the fields of history and art history.

Dan began working at Chaffey as adjunct faculty in 1993. Dan joined the Faculty full time in 1998. Since then he has been busy in many different projects including the development of curriculum for the Humanities program, leading a team of students to the Gulf Coast to build houses for survivors of Hurricane Katrina with Habitat for Humanity, and starring as Vince Fontaine in Chaffey’s production of Grease. Currently he is the Faculty Chair for the recently established G.E.M. (Green Earth Movement) Committee.
COLLEGE PERSONNEL

GOVERNING BOARD

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Dean, Business and Applied Technology
B.A., San Diego State College  
M.A., San Diego State University

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B.S., California State Polytechnic University, Pomona

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Dean, Language Arts
B.A., M.A., California State University, Long Beach

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B.S., California Polytechnic State University, San Luis Obispo  
Ph.D., University of California, Irvine

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M.A., California State University, Fullerton  
Ed.D., University of Southern California

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Vice President/Chief Administrative Officer, Chino Campus
B.S., M.A., Central Michigan University  
Ph.D., Michigan State University

Teresa Hull  
Dean, Chino Campus and School of Health Sciences
B.S., University of Santa Clara  
M.Ed., Indiana State University  
Ph.D., University of La Verne

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Vice President, Administrative Services
B.S., Pennsylvania State University  
M.S., California State University, Northridge

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Dean, PE/Athletics
B.A., M.A., La Verne College

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B.A., Ph.D., University of California, Riverside

Cirocco Pinedo  
Executive Assistant to the Superintendent/President
B.A., St. John’s Seminary College

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Associate Dean, Library/Learning Resources
Interim Dean, School of Social and Behavioral Sciences
A.B., University of California, Riverside  
M.A., University of Redlands  
M.L.S., University of California, Los Angeles

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B.S., California Polytechnic State University, San Luis Obispo  
M.S., San Diego State University  
Ed.D., University of San Diego

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A.A., Riverside Community College  
B.A., California State Polytechnic University, Pomona  
M.A., California State University, Fullerton

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A.A., Citrus College  
B.A., University of California, Santa Barbara  
M.B.A., University of Redlands

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Director, Facilities, Operations, and Engineering Services
B.S., University of Arizona

Jenny Dannelley  
Director, Transfer Center and International Student Programs
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M.B.A., University of La Verne

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Director, Economic Development/Community Education
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B.S., University of Redlands

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M.A., University of Redlands

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Andronik Nazarian  
Director, Alumni Relations
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Susan Panattoni  
Administrator, Personnel Services

Katherine Peek  
Director, Student Health Services
B.S.N., Azusa Pacific University  
M.S., Ph.D., California Coast University

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Chief of Police/Director, Public Safety
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J.D., University of La Verne College of Law

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M.B.A., University of La Verne

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Rebecca Trawick  
Director, Museum Gallery
B.S., University of Minnesota

Anita Undercoffer  
Director, Budgeting Services
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FACULTY

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M.S., Agra University, India

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M.S., University of Wisconsin, Madison

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M.L.S., San Jose State University

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M.A., Azusa Pacific University

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Ph.D., New York State University, Albany

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Community College Instructor Credential

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Cheattle, Medina  
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M.S., San Jose State University

Chen, Abel  
Associate Professor; Business Administration/Business Law  
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Gregory, Donald J.  
Sociology

Grinn, Lewis L.  
Physics, Engineering

Grise, Hendrik  
Art

Groneweg, William C.  
Dean of Admissions and Records

Gurich, Louise  
Court Reporting

Hafiz, M. David  
Dean, Admissions, Records, and Counseling

Haney, Gloria  
English

Harmon, Wesley L.  
Counseling, Psychology

Haug, Richard L.  
Computer Science

Haven, David F.  
Biological Sciences

Hemenway, Francis P.  
Interior Design, Home Economics

Hernandez, Gene M.  
Autobody Repair

Hernandez, Joe D.  
Counseling

Hicks, Charles  
English

Higbee, R. Eugene  
Spanish, English

Higgins, Julianne  
Nursing

Himaya, Divina C.  
Philosophy
Hinrichsen, Kenneth C.
President

Holley, Helen
Health Services Specialist

Hollist, Lynn O.
Dean, Community Services

Horsch, L.J.
Social Science

Howard, Elaine
Office Technology

Howard, Gilbert A.
Real Estate

Hubert, Wayne
Dean, Language Arts

Huenergardt, Myrna
Health Services

Hyams, Maureen
Vocational Nursing

Jaeger, Paul F.
Physical Education

Jack, Clyde
Counseling, Psychology

Jahr, Doris
Nursing

Jaramillo, Luz
English, Spanish

Jarman, Carol
Certified Nursing Assistant

Johnson, Catherine E.
Theatre Arts

Johnson, Eleanor
Basic Skills, English

Johnson, Lawrence X.
Aeronautics

Johnson, Mildred
Mathematics

Jones, Volena
English

Judd, Wallace C.
Law Enforcement

Kellogg, Stephen J.
Biological Sciences

Ketchum, Donald J.
Data Processing

Killen, Richard R.
English

Kimbel, Kyle
Home Economics

Koyle, Ronald
Drafting

Kuhlmann, Bobbie L.
Accounting

Lambert, Bonnie
Accounting

Latham, Robert
Political Science

Lawlor, Joseph P.
Director, Instructional Services

Lober, Robert M.
Astronomy, Mathematics

Lockwood, L. Gordon
Radiologic Technology

Lowman, Judy Ann
Geology

Luebbers, Emma O.
Business

Lyman, Karen
Gerontology

Madden, Peggy A.
English

Mahoney, Andree
Art

Malone, Michael
English

Marino, Penny B.
Fashion Merchandising and Design

Martin, Gerald E.
English, German

Martyns, Leonard L.
Business

Mason, Jack M.
Music

Mather, Leonard S.
Counseling, Education

Mather, Wiley W.
Social Science

Mays, R. Juanita
Associate Degree Nursing

McAllister, Bernice L.
Anthropology, Archaeology

McGee, John R., Jr.
Correctional Science

McPherson, Kenneth W.
Cooperative Education

Merchant, Harold E.
Chemistry

Metwalli, Mary Ellen B.
History

Michie, Jack
Assistant Superintendent, Institutional Development

Miller, Charles S.
History

Miller, Fred
Automotive Technology

Miller, Ralph H.
Life Science

Milliken, Daniel B.
President

Mitchell, Barbara J.
History

Montgomery, Mary Ellen
Business and Office Technologies

Mossman, Shirley Nash
Interior Design

Myers, Edward E.
 Anthropology, Biology, Physiology

Myers, Milton C.
Counseling

Myers, Pauline
Counseling

Nehlsen, Carol
Business and Office Technologies

Newton, Ralph J. E.
Business Education

Noble, Erna Smith
Dental Assisting

Norman, Rosamond
English

Normand, Thomas
Counseling

Olson, Betty M.
Physical Education

O’Neill, Maura
Philosophy

O’Sullivan, R. Timothy
English

Parratt, Lloyd P.
Biological Science, Health Science

Payne, Clara
English

Payne-Jones, Joanna P.
Child Development

Peaker, Allis B.
English

Personius, Darwin N.
Aeronautics

Peters, Thomas
Mathematics

Pierce, John W.
Drafting, Engineering

Pitts, Billie P.
Business Education

Pompura, Sylvia
Nursing

Porter, Ralph A.
Dean, Educational Services

Punter, Sam C.
Administration of Justice

Purkiss, William
Communication Studies

Raithel, Janice C.
Art

Ratliff, Gena Vee
Business

Reeder, George A.
Dance

Reynolds, Joseph E.
French, English

Richardson, Evelyn O.
Nursing

Roberts, Myron
English

Robinson, Mary V.
Business Education

Robinson, W. Dario
Lithography

Romero, Gloria D.
English

Romero, Gloria
Director, High School Relations

Rose, Bea
Philosophy

Rose, Florence
Psychology, Sociology

Ross, Harley
Correctional Science

Russel, Peter
Biological Science

Sayles, Carol L.
Dean, School of Social and Behavioral Sciences

Schesser, Frankie L.
Business

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Business
## College Personnel

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CATALOG 2009-2010
# PHONE DIRECTORY

(All numbers are area code 909)

## RANCHO CUCAMONGA CAMPUS NUMBERS:

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<td>Multidisciplinary/Reading Center</td>
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<td>Writing Center</td>
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## CHINO CAMPUS NUMBERS:

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<td>Contract Ed/Customized Training</td>
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<td>Library/Cybrary</td>
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<td>Reading/Writing Success Center</td>
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<td>Veterans Services</td>
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<td>Workforce Preparation</td>
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## FONTANA CAMPUS NUMBERS:

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## DEPARTMENTS

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<td>Broadcasting</td>
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<td>Chemistry</td>
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<td>Child Development &amp; Education</td>
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Chaffey College 2009–2010 Academic Calendar

Fall Semester 2009

August 24 – December 20

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NOTE: Weekend classes meet following Friday holidays. and before Monday holidays on specifically designated school holidays.

LEGEND

= Instruction Begins  = Spring Break
= Holiday  = Institutional Flex Days. No classes held
= Final Examinations  = Commencement
= Faculty Lecture of the Year

SUN 17
MON 18
TUE 19
WED 20
THU 21
FRI 22
SAT 23

Spring Semester 2010

January 11 – May 20

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