page 87 insert
PART 6 DIVIDER
LIMITATIONS ON SCHEDULING COURSES

Some courses in this catalog will not be scheduled in 2004-2005. Additional courses may be added. Skyline College reserves the right to discontinue, postpone, or combine classes and to change instructors when circumstances warrant such changes. Further, it reserves the right to cancel classes that do not reach a minimum enrollment.

COURSE DESCRIPTIONS INFORMATION

Courses on the following pages form the basic offerings at Skyline College. Generally, in the following course descriptions, both semesters of a year's course are listed together if the first semester course is a prerequisite to the second semester course. If there is no entry, the course has no prerequisite. All courses are offered for a letter grade, unless otherwise noted.

The credit value of each course in semester units is indicated by the number in parentheses following the title. A semester unit of credit is based upon one hour of the student's time at the college per week in lecture or recitation throughout one semester, together with the time necessary in preparation, or a longer time in laboratory or other exercises not requiring outside preparation. A normal schedule of 15 college units presupposes that the average student will devote approximately 45 hours per week to class attendance and preparation.

Skyline College reserves the right to make appropriate course and program changes during the course of the year which may not be reflected in this catalog.

COURSE NUMBERING AND TRANSFERABLE CREDIT

The course numbering system in use at Skyline College as part of the San Mateo County Community College District categorizes courses according to the following:

100-599 Courses generally transferable to a four-year college or university.

600-699 Courses varying in content and which are usually transferable.

700-799 Courses that are part of a specific occupational program and which are not generally regarded as transferable.

800-899 Courses that are non-transferable in nature.

Courses accepted by the University of California are indicated at the end of each course description as "UC". A complete list of transferable courses will be found following the course description section, pages 162-163.

Courses identified by Skyline College as transferable to California State Universities are indicated at the end of each course description as "CSU". Courses that fulfill general education requirements show an area letter designation following. All transferable courses that satisfy general education to CSU are listed on pages 164-168.

Because of changing regulations governing the transferability of courses among the segments of higher education in California, students should consult a counselor for current information about specific items.

From time to time, a department may offer a course which is experimental in nature, covers a special topic, or which consists of independent study tailored to a student's needs. Because such courses are never exactly the same, you will not find them described in the catalog. They are, however, regular credit courses of the College. Usually they will be described in the Schedule of Classes or in other course advertising and will have a department name followed by one of the following numbers:

670 Vocational Cooperative Education courses (1-4)

Vocational Cooperative Education courses are offered under COOP 670 as well as the 670 number in a variety of vocational disciplines. Courses numbered 670 are transferable to CSU.

680, 880 Experimental Courses

Courses designed to study a particular area or problem beyond the scope of regularly offered courses. These courses can be offered for a letter grade or for Credit/No Credit.

690 Individual Study in Department (1-3)

Individual study of a particular area or problem beyond the scope of regularly offered courses. Courses numbered 680 or 690 are generally transferable. Courses numbered 880 are not transferable. See a counselor for specifics.

Unless otherwise designated, any course may be offered either in day or evening. Specific information concerning class hours and rooms will be found in the current Schedule of Classes.

COURSE REPETITION

The Board of Trustees of the San Mateo County Community College District has adopted a policy (District Rules and Regulations, Section 612) which permits a student to repeat certain courses for credit a maximum of three times (total of four class enrollments).

These courses require increasing levels of student performance or provide significantly different course content each subsequent semester. Such courses will be designated as "may be repeated for credit" in the College Catalog. For more information on this policy, please consult your College counselor.

Notwithstanding the restrictions cited in the paragraph above, a student who has received a grade D, F or NC may, with authorization, repeat the course one time for the purpose of grade alleviation.

A student will be permitted to repeat courses indefinitely where repetition is needed for the student to meet a legally mandated training requirement as a condition of continued paid or volunteer employment. The grade received each time shall be included for purposes of calculating the student's grade point average. Students who wish to repeat courses must present documentation that course repetition is necessary to complete legally mandated training requirements.
CALIFORNIA ARTICULATION NUMBER SYSTEM (CAN)

The California Articulation Number (CAN) identifies some of the transferable, lower division, introductory, (preparatory) courses commonly taught within each academic discipline on California college campuses. The system assures that CAN courses on one participating campus will be accepted “in lieu of” the comparable CAN course for the major on another participating campus. Example: CAN ECON 2 on one campus will be accepted for CAN ECON 2 on another participating campus. The CANs are listed by the course descriptions in the Skyline College Catalog. A master list of all Skyline courses for which there are articulated CAN numbers can be found on page 171 of this catalog and can be obtained from the Counseling Office.

ACCOUNTING

ACTG 100 ACCOUNTING PROCEDURES (1.5-3)
Three lecture hours per week plus two lab hours per week by arrangement. Prerequisite: MATH 811 or equivalent. Recommended: BUS. 115 or equivalent, either CAOT 104 or CAOT 225 or equivalent, and eligibility for ENGL 836.

Introduction to financial accounting procedures for businesses, with emphasis on service and merchandising operations. Instruction in manual and computerized accounting systems with hands-on computer experience. Transfer credit: CSU.

ACTG 103 TEN KEY SKILLS (.5)
(Credit/No Credit.)
One class hour plus two lab hours per week for eight weeks.

Proficiency in using the touch method is developed on the ten-key calculating machine for the four basic functions of addition, subtraction, multiplication, and division. Transfer credit: CSU.

ACTG 121 FINANCIAL ACCOUNTING (3)
Three lecture hours per week and one lab hour per week by arrangement. Prerequisites: ACTG 100 (3 units) with a grade of C or better, or equivalent. Recommended: MATH 120 with a grade of C or better, or equivalent; CAOT 225 or equivalent; and eligibility for ENGL 836.

Introduction to financial accounting principles and concepts, content and meaning of balance sheet, income statement, and cash flow statements. Meaning and application of generally accepted accounting principles (GAAP). Transfer credit: UC; CSU. (CAN BUS 2; ACTG 121 + ACTG 131 = CAN BUS SEQ A).

ACTG 131 MANAGERIAL ACCOUNTING (3)
Three lecture hours per week and one lab hour per week by arrangement. Prerequisite: ACTG 121 with a grade of C or better, or equivalent. Recommended: Either BUS. 120 or MATH 241, or equivalent; and CAOT 225 or equivalent.

Accounting techniques which serve the needs of management. Includes: forecasting, budgeting, cost accounting, break even analysis, responsibility accounting, and other practices which facilitate decision making. Transfer credit: UC; CSU. (CAN BUS 4; ACTG 121 + ACTG 131 = CAN BUS SEQ A).

ACTG 171 FEDERAL INCOME TAX (3)
Three lecture hours and one lab hour plus two lab hours per week by arrangement per week.

Preparation of Federal and California income tax returns for individuals; basic income tax law, theory and practice. Students who successfully complete this course may apply to the CTEC, the California Tax Education Council, to become a Registered Tax Preparer in California. Transfer credit: CSU.

ACTG 194 INTRODUCTION TO QUICKBOOKS PRO (1)
(Credit/No Credit or letter grade.)
A total of sixteen lecture hours plus sixteen lab hours by arrangement. Recommended: Eligibility for READ 836 and ENGL 836.

Development and operation of a computerized accounting system using QuickBooks Pro. May be repeated for credit. Transfer credit: CSU.

ACTG 196 INTERMEDIATE QUICKBOOKS PRO (1)
(Credit/No Credit or letter grade.)
A total of sixteen lecture hours plus sixteen lab hours by arrangement. Prerequisite: ACTG 194 or equivalent.

Financial accounting features of setting up and maintaining a computerized accounting system using the advanced features of QuickBooks Pro along with coverage of the financial information and complex issues encountered with QuickBooks Pro. May be repeated for credit. Transfer credit: CSU.

ACTG 197 COMPUTERIZED ACCOUNTING (1.5)
(Credit/No Credit or letter grade.)
A total of twenty-four lecture hours plus sixteen lab hours by arrangement. Prerequisite: ACTG 100 or equivalent.

Students will install and set up Peachtree, a popular integrated commercial accounting software package. Peachtree will be used to perform daily processing tasks related to the General Ledger, Accounts Receivable/Payable, Inventory, and Job Costing.

A review of accounting concepts and principles is an integral part of the course. Transfer credit: CSU.

ACTG 198 ADVANCED COMPUTERIZED ACCOUNTING WITH PEACHTREE (1.5)
(Credit/No Credit or letter grade.)
A total of twenty-four lecture hours plus sixteen lab hours by arrangement. Prerequisite: ACTG 197 or equivalent.

Peachtree, an integrated commercial accounting software package, will be used to review, differentiate, and interpret accounting concepts and data in a multitude of business situations. Topics include payroll, book and tax depreciation methods, advanced general ledger tasks, cash flow analysis, and financial statement analysis using computerized modules: payroll, fixed assets, reports, analyses and budgets. Advanced features will be discussed. Transfer credit: CSU.
ADMINISTRATION OF JUSTICE

ADMJ 100 INTRODUCTION TO ADMINISTRATION OF JUSTICE (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

History and philosophy of administration of justice in America; recapitulation of the system; identifying the various subsystems, role expectations and their interrelationships; theories of crime, punishment, and rehabilitation. Survey of the ethics, education, and required training for professionalism in the system. Transfer credit: UC; CSU (D3). (CAN AJ 2).

ADMJ 102 PRINCIPLES AND PROCEDURES OF JUSTICE (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

The role and responsibilities of each segment within the administration of justice system – law enforcement, judicial, and corrections. Procedures in each sub-system and how they relate to one another. May include field research. Transfer credit: CSU.

ADMJ 104 CONCEPTS OF CRIMINAL LAW (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

Historical development and philosophy of criminal law and constitutional provisions. Special emphasis on legal definitions, the classifications of crime and their application to the administration of justice system. Study of case law, methodology, and concepts of law as a social force. Also listed as LEGL 304. Transfer credit: UC; CSU. (CAN AJ 4).

ADMJ 106 LEGAL ASPECTS OF EVIDENCE (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

Origin, development, philosophy and constitutional basis of evidence; constitutional and procedural considerations affecting arrest, search and seizure; kinds and degrees of evidence and rules governing admissibility; judicial decisions and interpreting individual rights and case studies. Also listed as LEGL 306. Transfer credit: CSU.

ADMJ 108 COMMUNITY RELATIONS (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

The roles of administration of justice practitioners and their agencies. Principal emphasis upon professional image of the system of justice administration and the development of positive relationships between members of the system and the public. Also listed as SOCI 108. Transfer credit: UC; CSU.

ADMJ 120 CRIMINAL INVESTIGATION (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

A course designed for introductory and in-service Administration of Justice students to provide orientation to general and specific aspects of crimes and detection. The course also covers crime scene searches and suspect apprehension. Also listed as LEGL 320. Transfer credit: CSU.

ADMJ 123 CONCEPTS OF ENFORCEMENT PRINCIPLES (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

Explanation of theories, philosophies, and concepts related to the role expectations of the enforcement officer. Emphasis is placed on patrol, traffic, and public service responsibilities and their relationship to the administration of justice systems. Transfer credit: CSU.

ADMJ 125 JUVENILE PROCEDURES (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

The study of the extent, causation, and prevention of juvenile delinquency. Includes an analysis of juvenile courts, probation, institutional treatment, parole, and prevention programs. The sociological and anthropological approaches to juvenile delinquency will be discussed in terms of their relationship to the administration of justice systems. Transfer credit: CSU.

ADMJ 135 NARCOTICS AND SPECIAL INVESTIGATIONS (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

This course is designed to acquaint the Administration of Justice student with background and historical information necessary to enter a law enforcement agency. Such information involves identification of drugs, drug abuses, mental and physical effects, and addiction. There will also be special emphasis on vice and deviant behavior including victimless crimes. Transfer credit: CSU.

ADMJ 180 CRIMINAL IDENTIFICATION (3)
Three lecture hours per week. Recommended: Completion of ADMJ 102 and ADMJ 106 with grades of C or better; and eligibility for ENGL 836 and READ 836, or ENGL/READ 846, or equivalent.

Theory and practices in the science of fingerprints, including classification, filing, comparisons, latent print technology, preservation of evidence, court testimony, rolling prints, computers, and the law as it pertains to Criminal Identification. Other aspects of personal identification include skeletal identification, portrait parle, composites, blood evidence, and basic camera procedures. Transfer credit: CSU.

ADMJ 205 JUDICIAL PROCESS IN CALIFORNIA (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

An overview of the federal court system, the California courts, and administrative agency tribunals. Careful examination of roles and relationships of the courthouse work group. Also listed as LEGL 305. Transfer credit: CSU.
ADMJ 665 SELECTED TOPICS IN ADMINISTRATION OF JUSTICE (.5-2)
(Credit/No Credit.)
Eight lecture hours per .5 unit.
Advanced specialized study in Administration of Justice. This program is designed to offer unique or specialized criminal justice topics of contemporary student interest. Students will learn from and work closely with criminal justice practitioners and bring this newly acquired knowledge back into the community. Topics vary. May be repeated for credit. Transfer credit: CSU.

AMERICAN SIGN LANGUAGE

ASL 111 AMERICAN SIGN LANGUAGE I (3)
(Credit/No Credit or letter grade.)
Three lecture hours and one lab hour by arrangement per week.
A basic course in American Sign Language using the “audiolingual” approach with focus on everyday communication: exchanging information, beginning with exchanging names and moving to talking about one’s background; identifying others; making requests; giving reasons; giving opinions; giving simple directions. Topics center around personal information and the immediate environment. Grammar is introduced in context, with an emphasis on developing question and answer skills. Students rehearse conversation strategies for getting attention, asking for clarification, and correcting information to minimize misunderstanding. Transfer credit: UC; CSU (C2).

ASL 112 AMERICAN SIGN LANGUAGE II (3)
(Credit/No Credit or letter grade.)
Three lecture hours and one lab hour by arrangement per week. Prerequisite: ASL 111 or equivalent.
Functions and grammar introduced in American Sign Language I are reviewed and expanded to include giving directions, making plans, describing and identifying objects and locations, giving simple instructions, and telling what happened. Topics move from students talking about themselves and the immediate environment to talking about others and their community. Students develop language skills necessary to question, describe, and explain. Students rehearse conversation strategies and volunteer appropriate information to maintain a comfortable exchange. Transfer credit: UC; CSU (C2).

ASL 121, 122 ADVANCED ELEMENTARY AMERICAN SIGN LANGUAGE I AND II (3, 3)
(Credit/No Credit or letter grade.)
Three lecture hours plus one lab hour per week. Prerequisites: ASL 121 – Completion of ASL 112 or equivalent curriculum with a grade of C or better. ASL 122 – Completion of ASL 121 or equivalent curriculum with a grade of C or better.
Covers the fundamental principles of Level II American Sign Language and introduces more advanced information about the Deaf community and Deaf culture. Transfer credit: UC; CSU.

ANTHROPOLOGY

ANTH 110 CULTURAL ANTHROPOLOGY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Comparative analysis of culture from prehistoric times to the present. Prime emphasis is given to primitive peoples and their behavior regarding rituals, technology, politics, courtship and marriage, status and role, religion, and magic. Where appropriate, comparison is made with present-day American society in order to show the effect of societal diversity, size, and complexity on cultural factors. Transfer credit: UC; CSU (D3). (CAN ANTH 4).

ANTH 125 PHYSICAL ANTHROPOLOGY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Biological consideration of the origin, development, and potential survival of humans and other primates. Topics include concepts of evolution: natural selection and populations, patterns of inheritance, the fossil record, and behavioral adaptations. The course will examine how biological, physical, and cultural variations have allowed human populations to adapt to various physical environments. Transfer credit: UC; CSU (B2). (CAN ANTH 2).

ANTH 150 INTRODUCTION TO ARCHAEOLOGY: BONES, BEADS AND THE BASICS OF MATERIAL CULTURE (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 100.
Explore diverse cultures using theories and methods of anthropological archaeology. The course typically includes discussions of the development of archaeological research, excavation methods, data analysis, and selected cultural sequences. Field trips may be required. Transfer credit: UC; CSU (D3).

ANTH 155 HUMAN PREHISTORY AND THE RISE OF CIVILIZATION (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week Recommended: Eligibility for ENGL 100.
An anthropological survey of human and hominid pre history spanning over two million years. Emphasis is on the origin and cultural evolution of the world’s first settled communities and early civilizations, including Mesopotamia, Egypt, India, China, Europe, Central America, and South America. Transfer credit: UC; CSU (D3).
ANTH 165 SEX AND GENDER: CROSS-CULTURAL PERSPECTIVES (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 100, ENGL 105, or equivalent.
A survey of cross-cultural and historical factors influencing human sexuality, gender roles and identity. The course emphasizes non-Western cultures such as Asian, African, and the Indigenous Americas. Diverse cultural forces affecting both female and male status, such as economics, religion, and sexual practices, will be examined. Transfer credit: UC; CSU.

ANTH 180 MAGIC, WITCHCRAFT AND RELIGION (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 100.
A cross-cultural exploration of supernatural belief systems focusing on non-literate, tribal, and ethnic cultures; history and methods of the anthropological approach to religion; the dynamics of myth, magic, totem, taboo, cults, and sects. Transfer credit: UC; CSU (D3).

ANTH 360 NATIVE PEOPLES OF NORTH AMERICA (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
An introduction to the life ways of representative Native American culture groups found in different geographical areas of North America. The course will examine settlement patterns and environmental adaptations, social organizations, world view, and the arts chronologically and cross-culturally, with emphasis on the impact of contact with European cultures. Field trips may be arranged to investigate archaeological evidence. Transfer credit: UC; CSU (D3).

ARABIC

ARBC 111 ELEMENTARY ARABIC I (3)
(Credit/No Credit or letter grade.)
Three lecture hours and one lab hour by arrangement per week.
The first of a two-course sequence in basic elementary Arabic. Conversation in the language, dictation, reading, and study of the fundamentals of grammar; simple oral and written exercises; an introduction to Arabic culture. Transfer credit: UC; CSU (C2).

ARBC 112 ELEMENTARY ARABIC II (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week and one lab hour by arrangement per week. Prerequisite: Completion of ARBC 111 with a grade of C or better, or equivalent.
Second course of a two-semester sequence in basic elementary Arabic. Conversation in the language, dictation, reading and study of the fundamentals of grammar, simple oral and written exercises, and an introduction to Arabic culture. Transfer credit: UC; CSU (C2).

ARBC 121 ADVANCED ELEMENTARY ARABIC I (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week and one lab hour by arrangement per week. Prerequisite: Completion of ARBC 112 with a grade of C or better, or equivalent.
First course of a two-semester sequence in advanced elementary Arabic. Students practice and develop further communicative competence in written and spoken Arabic for use in a variety of social contexts and settings. Conversation in the language, reading and study of the fundamentals of grammar, and simple oral and written exercises. Cultural aspects of the Arabic-speaking world are emphasized. The course is conducted primarily in Arabic. Transfer credit: UC; CSU (C2).

ARBC 122 ADVANCED ELEMENTARY ARABIC II (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week and one lab hour by arrangement per week. Prerequisite: Completion of ARBC 121 with a grade of C or better, or equivalent.
Second course of a two-semester sequence in advanced elementary Arabic. Students practice and develop further communicative competence in written and spoken Arabic for use in a variety of social contexts and settings. Conversation in the language, reading and study of the fundamentals of grammar, and simple oral and written exercises. Cultural aspects of the Arabic-speaking world are emphasized. The course is conducted primarily in Arabic. Transfer credit: UC; CSU (C2).

ARBC 801 STANDARD SPOKEN ARABIC I (2)
(Credit/No Credit.)
Three lecture hours and one lab hour by arrangement per week.
A practical course in the Arabic language approached by way of conversation. Intensive drill in the patterns and idioms of daily speech in standard spoken Arabic, with sufficient grammar to give flexibility to the spoken language. Introduction to Arabic culture. (This course will not fulfill the foreign language requirement at California State Universities or at the University of California.)

ART
Art majors should consult the program outlined in “Degree Programs” for suggested plan of study. All studio classes with an asterisk (*) require three hours studio work per week in addition to lab hours included in class hours. Studio hours are by arrangement.

Studio art courses are offered for two or three units according to the number of class hours a course meets per week. Studio art courses offered for two units of credit consist of two hours lecture and two hours lab per week. Studio art courses offered for three units of credit consist of three hours lecture and three hours lab per week.

ART 101, 102 HISTORY OF WESTERN ART I, II (3, 3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 100.
Comprehensive survey of the history of architecture, painting and sculpture in the western world and the relation of art to the development of history. Illustrated lectures. (ART 101 + ART 102 = CAN ART SEQ A).

ART 101 History of Western Art I – Ancient and Medieval art to the beginning of the 14th century. Transfer credit: UC; CSU (C1). (CAN ART 2).

ART 102 History of Western Art II – Renaissance to modern art from the 15th to the 20th centuries. Transfer credit: UC; CSU (C1). (CAN ART 4).

ART 105 ART OF ASIA AND THE NEAR EAST (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

Survey of Asian and Near Eastern Art, especially India, China and Japan, and Persia. Investigation of the cultural sources of art work as well as their aesthetic qualities. Transfer credit: UC; CSU (C1).

ART 107 ART OF OUR TIMES (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

An introduction to the American visual experience of today including painting, sculpture, architecture, industrial, interior, package, advertising, furniture, design, etc. Transfer credit: CSU (C1).

ART 115 ART, MUSIC AND IDEAS (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

An introduction to the understanding and appreciation of art and music. An investigation into the elements of art and music will equip the student to see and hear with greater discrimination, as well as recognize how these elements have been used in the Western tradition. Lectures are illustrated with slides, tapes, films, etc., and enhanced by live performances when possible. Also listed as MUS. 115. Transfer credit: UC; CSU (C1).

ART 120 ART OF THE AMERICAS (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

An examination of the diverse indigenous arts and cultures of the Americas, the impact of colonialism and the development of ethnic arts in the 19th and 20th centuries in the Americas. Transfer credit: UC; CSU (C1).

ART 130 ART APPRECIATION (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

Explanation of the world of the artist. The tools and language of art as a basis for understanding the artists’ goals and judging their ability to reach those goals. Transfer credit: UC; CSU (C1).

ART 201, 202 *FORM AND COMPOSITION I AND II (2 OR 3)
(Credit/No Credit or letter grade.)
Four or six class hours per week. Prerequisite: ART 202 – ART 201.

ART 201 Form and Composition I – Study of form and space relationships with rendering of line, mass, and values through a sequence of original problems based on the fundamental understanding of geometric forms. Media will include pencils, conte crayons, inks and paints. Recommended as a first level course for anyone desiring to participate in an art experience or program. Transfer credit: UC; CSU (C1).

ART 202 Form and Composition II – Further study of form and advanced composition using various media in black and white and in color, illustration, experimental pictorial composition and three dimensional constructions. May be repeated for credit. Transfer credit: UC; CSU.

ART 204, 205 *DRAWING I AND II (2 or 3)
(Credit/No Credit or letter grade.)
Four or six class hours per week. Prerequisite: ART 205 – ART 204 or ART 201.

ART 204 Drawing I – Basic introduction to drawing using both simple and complex forms derived from nature, life, and still life sources. A variety of media will be used. Recommended as a first level course for anyone desiring to participate in an art experience or program. Transfer credit: UC; CSU (C1). (CAN ART 8).

ART 205 Drawing II – Materials and techniques in common use; traditional and contemporary pen, pencil, and conte crayon expression. Rendering of everyday objects and scenes. Methods of depicting shade, shadows, and textures, and acquiring skill in value transition. May be repeated for credit. Transfer credit: UC; CSU.

ART 207 *LIFE DRAWING (2 or 3)
(Credit/No Credit or letter grade.)
Four to six class hours per week.

Study of the human form in art. Fundamentals of anatomy and expressive representation of the human figure. Studio practice drawing from life. May be repeated for credit. Transfer credit: UC; CSU.

ART 208, 209 *PORTRAIT DRAWING I AND II (2 or 3)
(Credit/No Credit or letter grade.)
Four or six class hours per week. Prerequisite: ART 209 – ART 208.

Portrait characterization class for both advanced and beginning students who will work at their own level with individual instruction. Students can choose and experiment with drawing media and color. Male and female models will sit for portraits. ART 209 may be repeated for credit. Transfer credit: UC; CSU.

ART 214 *COLOR (2 or 3)
(Credit/No Credit or letter grade.)
Four or six class hours per week plus additional studio hours.

Drawing proficiency is not required. Introduction to the physical and psychological properties of color. This course stresses the knowledge and skills needed to use color aesthetically. Transfer credit: UC; CSU.
ART 221, 222 *PAINTING I AND II (2 or 3)
(Credit/No Credit or letter grade.)
Four or six class hours per week. Prerequisite: ART 222 – ART 221.

ART 221 Painting I – Basic introduction to form and color through painting. A choice of oil paints, acrylics, or poster paints. Studio practice and projects. Various approaches to design and painting. Recommended as a first level course for anyone desiring to participate in an art experience or program. Transfer credit: UC; CSU (C1). (CAN ART 10).

ART 222 Painting II – Additional study of form and color through painting. Studio practice and projects involving painting, design, and composition. May be repeated for credit. Transfer credit: UC; CSU.

ART 231, 232 *WATERCOLOR I AND II (2 or 3)
(Credit/No Credit or letter grade.)
Four or six class hours per week. Prerequisites: ART 231 – Satisfactory completion of one or more college level studio art courses is recommended. ART 232 – ART 231 or equivalent is required.

ART 231 Watercolor I – Introduction to Transparent and Opaque Watercolor. Varied approaches and techniques. Transfer credit: UC; CSU.

ART 232 Watercolor II – Additional exploration of watercolor painting as a vehicle for creative art expression. May be repeated for credit. Transfer credit: UC; CSU.

ART 234 PRINTMAKING I (2 or 3)
(Credit/No Credit or letter grade.)
Four or six class hours per week plus additional studio hours.

Introduction to printmaking including etching, monotype, woodcut and linocut techniques. Limited editions of prints will be produced in each of the four areas. Transfer credit: UC; CSU.

ART 235 PRINTMAKING II (2 or 3)
(Credit/No Credit or letter grade.)
Four or six class hours per week plus additional studio hours.

Further exploration of printmaking techniques including etching, monotype, woodcut and linocut. Students will specialize in an area for advanced study and production. May be repeated for credit. Transfer credit: UC; CSU.

ART 248 *PORTRAITS IN PASTEL (2 or 3)
(Credit/No Credit or letter grade.)
Four or six class hours per week. Prerequisite: ART 208 or equivalent.

Painterly approach to portraiture using soft pastel to draw and color. Pastel techniques involved in application, color mixing, and the use of different surfaces will be presented in conjunction with drawing and coloring the portrait. Main media will be soft pastels. Other related media may be used. Transfer credit: UC; CSU (C1).

ART 301, 302 *DESIGN AND ADVANCED DESIGN (2 or 3)
(Credit/No Credit or letter grade.)
Four or six class hours per week. Prerequisites: ART 302 – ART 301.

ART 301 Design – Introduction to basic design elements and principles including color, line, and form. Studio application involving various approaches to subject matter and abstract organization. Both two and three dimensional applications will be explored. Transfer credit: UC, CSU (C1). (CAN ART 14).

ART 302 Advanced Design – Additional study of design elements and principles. Studio practice centered upon creative interpretations and problem solving, using varied art materials and techniques both two and three dimensional. May be repeated for credit. Transfer credit: UC, CSU.

ART 311, 312 *LETTERING AND LAYOUT I AND II (2 or 3)
(Credit/No Credit or letter grade.)
Four or six class hours per week.

Development of student proficiency in lettering and layout techniques and principles required for graphic design. ART 312 may be repeated for credit. Transfer credit: CSU.

ART 322 *ILLUSTRATION (2 or 3)
(Credit/No Credit or letter grade.)
Four or six class hours per week. Prerequisite: ART 204 Drawing I; Recommended: ART 301 Design.

The use of diverse art techniques and materials to meet the image or illustration requirements of commercial designs. Drawing, painting, three-dimensional, and photographic techniques will be examined. May be repeated for credit. Transfer credit: CSU.

ART 338 *ADVERTISING ART (2)
(Credit/No Credit or letter grade.)
Four class hours per week.

Study of commercial art techniques and approaches with an emphasis on creative design and illustration used in advertising art. Studio practice in preparation of art work for reproduction. May be repeated for credit. Transfer credit: CSU.

ART 350 VISUAL PERCEPTION THROUGH PHOTOGRAPHY (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

A basic photography course which integrates “how-to-take” photographs with analytical considerations of image compositions, visual vocabularies, and photographic techniques to gain insights into photography's communicative abilities. Images from print media, movies, and television are explored to learn how photography communicates ideas and influences viewers' understanding of photographs. Transfer credit: CSU (C1).

ART 351, 352, 353* PHOTOGRAPHY I, II AND III (2 or 3)
(Credit/No Credit or letter grade.)
Four or six class hours per week. Prerequisites: ART 352 – ART 351 or equivalent; ART 353 – ART 352 or equivalent.
ART 351 Photography I – Use of exposure meter, filters, print papers, formulas and processing, and special lenses and shutters. Problems of artificial and natural lighting, enlarging or spotting prints, and print finishing and mounting. Individual projects are chosen from the fields of scenic and nature photography, as well as portraiture. Transfer credit: UC; CSU (C1). (CAN ART 18).

ART 352 Photography II – Study of photographic and printmaking processes supplemented with individual projects. Transfer credit: UC; CSU (C1).

ART 353 Photography III – Provides the serious student with a first-hand working knowledge of advanced camera, studio and darkroom techniques. The class concerns itself with studio and location exercises. Assignments are selected rom the areas of fashion, advertising, photojournalism, architecture, and portraiture. May be repeated for credit. Transfer credit: CSU.

ART 354, 355 COLOR PHOTOGRAPHY I AND II (2 or 3)
(Credit/No Credit or letter grade.)
Six or nine class hours per week plus lab hours by arrangement. Prerequisite: ART 355 – ART 354 or equivalent. Transfer credit: CSU (C1).

ART 354 Color Photography I – Introduction to the use of color materials as expressive media. Use of photographic equipment, materials and chemical processes in color photography. Mastery of the technical aspects of color balance and exposure will be emphasized.

ART 355 Color Photography II – Application of skills learned in beginning color photography to projects in advanced exposure control, chemical processes, composition, color balance and lab skills. Expands basic knowledge through a more intensive and thorough investigation of tools and techniques within color photography. May be repeated for credit.

ART 363 ALTERNATIVE PROCESSES IN PHOTOGRAPHY I (3)
(Credit/No Credit or letter grade.)
Two lecture hours plus three lab hours per week. Prerequisite: ART 351 or demonstration of basic darkroom skills.

An introduction to non-silver printing processes, transfer of Polaroid images to other media, and hand-coloring techniques for print modification. Explores manipulations of original images to reveal forms of expression unattainable through traditional photographic processes. Transfer credit: CSU.

ART 364 ALTERNATIVE PROCESSES IN PHOTOGRAPHY II (3)
(Credit/No Credit or letter grade.)
Two lecture hours plus three lab hours per week. Prerequisite: ART 363 or equivalent skills and techniques.

Elaboration and refinement of techniques introduced in ART 363: non-silver printing processes, Polaroid transfer, emulsion transfer, lithographic materials, and others. Emphasizes the completion of a cohesive portfolio of personally significant images utilizing sophisticated application of non-traditional photographic processes. May be repeated for credit. Transfer credit: CSU.

ART 376 DIGITAL IMAGING I (2)
(Credit/No Credit or letter grade.)
One and one half lecture hours plus one and one half lab hours per week.

A beginning course to explore digital computer imagery as an art medium. Students work with digital files and digital image manipulation programs such as Adobe Photoshop to produce personally significant works. Introduction to principles of design, art theory, and the works of contemporary and historic artists. Transfer credit: UC; CSU.

ART 377 DIGITAL IMAGING II (3)
(Credit/No Credit or letter grade.)
Two lecture and three lab hours per week plus one lab hour by arrangement per week. Prerequisite: ART 376.

An intermediate course expanding creative efforts in producing art with computerized imaging and the alteration of the art with image manipulation software such as Adobe Photoshop. Refinement of use of output modes for digital files. Continued in-depth application of principles of design, art theories, and consideration of the works of contemporary and historic artists. Transfer credit: CSU.

ART 405, 406 *SCULPTURE I AND II (2 or 3)
(Credit/No Credit or letter grade.)
Four or six class hours per week. Prerequisites: ART 406 – ART 405.

ART 405 Sculpture I – An introduction to sculpture processes. Studio practice using a variety of materials e.g., wood, metal, plaster, clay, stone and mixed-media assemblage to make three dimensional works of art. Transfer credit: UC; CSU (C1). (CAN ART 12).

ART 406 Sculpture II – Advanced study and practice in three dimensional form; a continuation of ART 405 in developing mastery of the media of sculpture e.g., wood, metal, plaster, clay, stone, and mixed-media assemblage. May be repeated for credit. Transfer credit: UC; CSU.

ART 407 *SCULPTURE III: DIRECT METAL (2 or 3)
(Credit/No Credit or letter grade.)
Four or six class hours per week. Prerequisite: ART 405.

Creation of sculptural form in metal, using welding, brazing, and soldering techniques for fabrication of line, plane, found-object and mixed-media compositions. May be repeated for credit. Transfer credit: CSU.

ART 408 BRONZE CASTING (1)
(Credit/No Credit or letter grade.)
Total of thirteen lecture and nine lab hours.

An intensive introduction to the bronze casting process. Students will be given an overview of objects made of bronze, from earliest tools produced to present-day sculpture and from many different cultures. They will then make a sculpture in clay and take that sculpture through all of the stages involved in converting it into a finished bronze. Transfer credit: CSU.
ART 411, 412 *CERAMICS I AND II (2 or 3)
(Credit/No Credit or letter grade.)
Four or six class hours per week. Prerequisites: ART 412 – ART 411.
Completion of or concurrent enrollment in ART 301 recommended.

ART 411 Ceramics I – Survey of ceramic materials and their function in relation to art values. Basic studio practice in handbuilding processes and glazing of ware. Related study of clay origins and compositions, decorating techniques, the firing of kilns, and glaze composition. Transfer credit: UC; CSU (C1). (CAN ART 6).

ART 412 Ceramics II – Additional study of ceramic processes and their application in art. May be repeated for credit. Transfer credit: UC; CSU.

ART 417 *CERAMIC GLAZING TECHNIQUES (2 or 3)
(Credit/No Credit or letter grade.)
Four or six class hours per week. Prerequisite: Art 412.
Advanced glazing techniques including special glazes, glaze composition and multi-firing techniques. Projects with emphasis on glaze effects. May be repeated for credit. Transfer credit: UC; CSU.

ART 665 SPECIAL TOPICS IN ART (.5 or 1 or 2 or 3)
(Credit/No Credit or letter grade.)
One and one half, three, six or nine hours per week plus additional studio hours. Recommended: Successful completion of a beginning art studio course.
Advanced or specialized study in studio arts. Designed for students in ceramics, drawing, painting, photography, printmaking, and sculpture, this course provides extended study of a particular media, technique, or artistic problem through selected themes as listed in the class schedule. May be repeated for credit. Transfer credit: UC; CSU.

AUTOMOTIVE TECHNOLOGY

TOYOTA TECHNICAL EDUCATION NETWORK
*Note: Auto 730 Japanese Basic Electrical is the required core course for the Toyota Technical Education Network Associate Degree.

AUTO 706 TOYOTA ENGINES (6.5)
Lecture/Laboratory total of 160 hours. Prerequisite: Admission to the Automotive Technology program.
This course involves the basic study of engine design and operation including basic measuring, inspection, diagnosis, and repair. Primary emphasis will be on diagnosis and valve train repair. Transfer credit: CSU.

AUTO 707 TOYOTA TRANSMISSIONS (8.5)
Lecture/Laboratory total of 200 hours. Prerequisite: Admission to the Automotive Technology program.
This course involves the basic study of powertrains, including clutches, manual and automatic transmissions and transaxles, and differentials. Primary emphasis will be on testing, diagnosis, and repair. Transfer credit: CSU.

AUTO 725 TOYOTA BRAKES AND CHASSIS (11)
Lecture/Laboratory total of 270 hours. Prerequisite: Admission to the Automotive Technology program.
This course involves the basic study of mechanical and hydraulic brake systems, steering and suspension systems, tires, and wheel alignment. Emphasis will be on system operation, diagnosis, adjustment, testing, and repair. This course will prepare the student for the California Brake Adjusters License and Automotive Service Excellence (A.S.E.) Examinations. Transfer credit: CSU.

AUTO 727 TOYOTA AIR CONDITIONING (4)
Lecture/Laboratory total of 90 hours. Prerequisite: Admission to the Automotive Technology program.
This course involves the basic study of automotive climate controls and components. Principles of heating and air conditioning and the engine's cooling system will be discussed. The course covers system evacuating, recycling and recharging of the air conditioning system, with emphasis on testing, diagnosis, and repair. Transfer credit: CSU.

AUTO 728 TOYOTA ADVANCED ELECTRICAL (7)
Lecture/Laboratory total of 180 hours. Prerequisite: Admission to the Automotive Technology program.
This course involves the basic study of automotive electronics, body electrical, instrumentation, ignition systems, and basic engine computer controls. Primary emphasis will be on testing, diagnosis, and repair. Transfer credit: CSU.

AUTO 729 TOYOTA ENGINE PERFORMANCE (14.5)
(APPROVED CLEAN AIR COURSE)
Lecture/Laboratory total of 344 hours. Prerequisite: Admission to the Automotive Technology program.
This course involves the basic study of ignition systems, fuel systems, emission control, computer control, and driveability diagnostics. Students will receive instruction necessary to take the Automotive Service Excellence examination in the area of Engine Performance. Transfer credit: CSU.

AUTO 730 JAPANESE BASIC ELECTRICAL* (8)
Lecture/Laboratory total of 180 hours. Prerequisite: Admission to the Automotive Technology program.
This course involves the basic study of electrical fundamentals, automotive batteries, wiring diagrams, starting and charging systems, and lighting systems. Primary emphasis on testing, diagnosis, and repair. This course will prepare the student for the California Lamp Adjusters License. Transfer credit: CSU.

AUTO 743 PRE-DELIVERY SERVICE (.5)
Lecture/Laboratory total of 16 hours. Prerequisite: Admission to the Automotive Technology program.
This course involves the basic study of automotive pre-delivery service (PDS) and routine service procedures including locating rattles, noises, radio and mirror installation, lubrication and other basic service procedures. Transfer credit: CSU.
JAPANESE AUTOMOTIVE TECHNOLOGY

AUTO 730 JAPANESE BASIC ELECTRICAL* (8)
Lecture/Laboratory total of 180 hours. Prerequisite: Admission to the Automotive Technology program.

This course involves the basic study of electrical fundamentals, automotive batteries, wiring diagrams, starting and charging systems, and lighting systems. Primary emphasis on testing, diagnosis, and repair. This course will prepare the student for the California Lamp Adjusters License. Transfer credit: CSU. *This course is also the required core course for the Japanese Automotive Technology Associate Degree.

AUTO 743 PRE-DELIVERY SERVICE (0.5)
Lecture/Laboratory total of 16 hours. Prerequisite: Admission to the Automotive Technology program.

This course involves the basic study of automotive pre-delivery service (PDS) and routine service procedures including locating rattles, noises, radio and mirror installation, lubrication and other basic service procedures. Transfer credit: CSU.

AUTO 745 JAPANESE BRAKES AND CHASSIS (11)
Lecture/Laboratory total of 270 hours. Prerequisite: Admission to the Automotive Technology program.

This course involves the basic study of mechanical and hydraulic brake systems, steering and suspension systems, tires, and wheel alignment. Emphasis will be on system operation, diagnosis, adjustment, testing, and repair. This course will prepare the student for the California Brake Adjusters License and Automotive Service Excellence (A.S.E.) Examinations. Transfer credit: CSU.

AUTO 747 JAPANESE AIR CONDITIONING (4)
Lecture/Laboratory total of 90 hours. Prerequisite: Admission to the Automotive Technology program.

This course involves the basic study of automotive climate controls and components. Principles of heating and air conditioning and the engine's cooling system will be discussed. The course covers system evacuating, recycling and recharging of the air conditioning system, with emphasis on testing, diagnosis, and repair. Transfer credit: CSU.

AUTO 748 JAPANESE ADVANCED ELECTRICAL (7)
Lecture/Laboratory total of 180 hours. Prerequisite: Admission to the Automotive Technology program.

This course involves the basic study of automotive electronics, body electrical, instrumentation, ignition systems, and basic engine computer controls. Primary emphasis will be on testing, diagnosis, and repair. Transfer credit: CSU.

AUTO 749 JAPANESE ENGINE PERFORMANCE (14.5)
Lecture/Laboratory total of 344 hours. Prerequisite: Admission to the Automotive Technology program.

This course involves the basic study of ignition systems, fuel systems, emission control, computer control, and driveability diagnostics. Students will receive instruction necessary to take the Automotive Service Excellence examination in the area of Engine Performance. Transfer credit: CSU.

AUTO 796 JAPANESE ENGINES (6.5)
Lecture/Laboratory total of 160 hours. Prerequisite: Admission to the Automotive Technology Program.

This course involves the basic study of engine design and operation including basic measuring, inspection, diagnosis, and repair. Primary emphasis will be on diagnosis and valve train repair. Transfer credit: CSU.

AUTO 797 JAPANESE TRANSMISSIONS (8.5)
Lecture/Laboratory total of 200 hours. Prerequisite: Admission to the Automotive Technology program.

This course involves the basic study of powertrains, including clutches, manual and automatic transmissions and transaxles, and differentials. Primary emphasis will be on testing, diagnosis, and repair. Transfer credit: CSU.

AUTOMOTIVE TECHNOLOGY PROGRAM

AUTO 665 SELECTED TOPICS IN AUTOMOTIVE TECHNOLOGY (.5-1.5)
(Credit/No Credit)
Eight lecture hours plus lab hours per .5 unit.

These short courses are designed for automotive professionals who need to meet current Smog Check licensing requirements and prepare for the Automotive Service Excellence (ASE) certification test. Each topic may be taken two times for credit. Transfer credit: CSU.

AUTO 708 AUTOMOTIVE PRINCIPLES LAB (1-2)
(Credit/No Credit or letter grade.)
Lecture/Laboratory total of 48 hours.

Student is encouraged to perform minor maintenance procedures for own vehicle. A general elective for those desiring a basic knowledge of the automobile. May be repeated for credit on a space available basis. Transfer credit: CSU.

AUTO 709 AUTOMOTIVE SERVICE ORIENTATION (2)
Lecture/Laboratory total of 48 hours.

This course involves the study of entry level job skills necessary to gain employment in the automotive repair field, including tire rotation, repair, mounting, balancing; fluid level checks; engine oil and filter change; lubrication; battery testing, charging and replacement; charging system output testing, and fan belt replacement. Transfer credit: CSU.

AUTO 710 FUNDAMENTALS OF AUTOMOTIVE MECHANICS (4.5)
Lecture/Laboratory total of 96 hours.

An introduction to the automotive technology program and profession. A survey course of the basic tools and fasteners and related mathematics required in automotive service. This course is recommended for those students desiring entrance into the Automotive Technology Day Program. Transfer credit: CSU.
AUTO 713 AUTOMOTIVE ELECTRICITY AND ELECTRONICS (15)
Lecture/Laboratory total of 360 hours. Prerequisite: Admission to Automotive Technology Program.

This course involves the study of electrical fundamentals, electrical test equipment, automotive batteries, starting and charging systems, wiring diagrams, lighting circuits, various advanced body electrical circuits and controls. Primary emphasis on diagnosis, testing and repair. Transfer credit: CSU.

AUTO 716 AUTOMOTIVE COOLING/HEATING AND AIR CONDITIONING (5)
Lecture/Laboratory total of 120 hours. Prerequisite: Admission to Automotive Technology Program.

Theory and operation of cooling, heating, and air conditioning systems. Lab practices include maintenance, testing, diagnosis, and repair of these systems. Transfer credit: CSU.

AUTO 721 AUTOMOTIVE STEERING, SUSPENSION AND BRAKES (15)
Lecture/Laboratory total of 360 hours. Prerequisite: Admission to Automotive Technology Program.

A study of automotive steering, suspension and brakes. Emphasis will be placed on the theory, operation, diagnosis and repair of modern braking systems, steering and suspension systems. Topics include: four-wheel steering, tires and wheels, supplemental inflatable restraints, power steering, power and anti-lock braking systems. Transfer credit: CSU.

AUTO 734 AUTOMOTIVE ENGINE DIAGNOSIS AND REPAIR (15)
Lecture/Laboratory total of 360 hours. Prerequisite: Admission to Automotive Technology Program.

A detailed study of various engine designs and materials. Lab will include diagnosis, inspection, repair methods, and parts necessary for complete repair. Also, various machines and machining operations will be covered. Transfer credit: CSU.

AUTO 735 AUTOMOTIVE TRANSMISSION AND DRIVE TRAINS DIAGNOSIS AND REPAIR (15)
Lecture/Laboratory total of 360 hours. Prerequisite: Admission to Automotive Technology Program.

A detailed study of the clutch, standard and automatic transmissions, drive lines and differentials: theory of operation including: friction materials, hydraulics, torque converters, gear trains, planetary gears, and controls as well as gear ratios, torque multiplication, speeds, drive line angles and tooth patterns. Transfer credit: CSU.

AUTO 751 AUTOMOTIVE ENGINE PERFORMANCE (15)
Lecture/Laboratory total of 360 hours. Prerequisite: Admission to Automotive Technology Program.

A study of the engine sub-systems responsible for good engine performance, clean air, and fuel economy. Systems to be covered include: ignition, fuel, emission, and computer controls. Transfer credit: CSU.

AUTO 752 ADVANCED ENGINE PERFORMANCE (15)
Lecture/Laboratory total of 360 hours. Prerequisite: Admission to the Automotive Technology Program or demonstration of equivalent skills; satisfactory completion of AUTO 751.

An in-depth study of import and domestic computerized engine controls. Emphasis will be placed on the theory, operation, and testing procedures necessary to accurately diagnose and repair driveability complaints. Students will receive instruction necessary to take the State of California test for obtaining a Qualified Test and Repair Mechanic’s License (Smog). Transfer credit: CSU.

AUTOMOTIVE APPRENTICESHIP PROGRAM/ADVANCED COURSES

Courses in the AUTO 800 series are part of the Automotive Apprenticeship Program, which is only available to students indentured with a Joint Apprenticeship Council.

Courses listed below that have a 700 series number are designed for advanced students. Professional experience or Journeyman level is recommended for these advanced courses.

AUTO 741 B.A.R. LEVEL 1 CITATION (.5)
(Credit/No Credit)
Total of 8 hours lecture/demonstration.

Student will receive instruction in how to perform visual and functional inspections, use emission control systems application reference manuals, and what responsibilities each mechanic has to the Smog Check Program. This course satisfies the State requirement for clearing level 1 Citation. (Units do not count toward the Associate Degree.)

AUTO 742 B.A.R. LEVEL 2 CITATION (.5)
(Credit/No Credit)
Total of 8 hours lecture/demonstration/lab. Prerequisite: Completion of, or concurrent enrollment in AUTO 741.

Student will receive instruction in how to properly complete a work order; to include estimates, revised estimates, and final invoices. The student will perform visual inspections of all emission control systems on a variety of vehicles. This course satisfies the State requirement for clearing level 2 Citation. (Units do not count toward the Associate Degree.)

AUTO 806 FUNDAMENTALS OF AUTOMOTIVE (.5-.4)
Lecture total of 4 hours per week. Class to be taken in conjunction with AUTO 807.

An introduction to the automotive profession. A survey course of basic tools and fasteners and related mathematics required in automotive service. Course also covers the function and theory of each of the systems of the automobile. This course available only at San Francisco County Jail in San Bruno. Students can transfer to the automotive program at Skyline College. (Units do not count toward the Associate Degree.)
AUTO 807 FUNDAMENTALS OF AUTOMOTIVE LAB (.5 -4.5)
Laboratory total of 8.5 hours per week. Class to be taken in conjunction with AUTO 806.
Basic lab exercises to correspond with topics covered in lecture sessions in AUTO 806. This course available only at San Francisco County Jail in San Bruno. Students can transfer to the automotive program at Skyline College. (Units do not count toward the Associate Degree.)

AUTO 808/760 HISTORY OF THE AUTOMOBILE (1.5)
Total of 24 class hours. Prerequisite: See above.
An in-depth study of the history of the automobile and its relationship to the Industrial Revolution, economic development, increased mobility of people, and use during war and peace time. Transfer credit: AUTO 760 – CSU.

AUTO 810/788 APPRENTICESHIP SYSTEMS (1.5)
Total of 24 class hours. Prerequisite: See above.
A study of the roles the union and the employer each play in training the apprentice. The history of apprenticeship systems, union philosophy, and employment benefits will be discussed. Transfer credit: AUTO 788 – CSU.

AUTO 811/789 SHOP REGULATIONS AND OPERATIONS (1.5)
Total of 24 class hours. Prerequisite: See above.
A study of automotive laws and regulations as they relate to business practices and licenses, occupational safety, writing of work orders, handling of warranty claims, customer services, and fair employment practices. Transfer credit: AUTO 789 – CSU.

AUTO 812/784 TOOLS OF THE AUTOMOTIVE INDUSTRY (1.5)
Total of 24 class hours. Prerequisite: See above.
A study of various automotive tools. Proper usage, handling maintenance, and repair of many common and complex tools will be emphasized. Quality, design, and pricing of tools will be discussed. Transfer credit: AUTO 784 – CSU.

AUTO 814/782 AUTOMOTIVE MATH (1.5)
Total of 24 class hours. Prerequisite: See above.
A study of mathematics as it relates to the automotive profession. Fractions, decimals, gear and pulley ratios, torque, horsepower, etc., will be discussed. Discussion of the metric system is included.

AUTO 815/783 PRECISION MEASUREMENT (1.5)
Total of 24 class hours. Prerequisite: See above.
This course covers the proper use, care, and calibration of precision measuring instruments. Students will learn how to use this data to calculate compression ratios, engine displacement, etc., and to select correct repair procedures. Transfer credit: AUTO 783 – CSU.

AUTO 822/769 HEAD AND VALVE SERVICES (2.5)
Total of 48 class hours. Recommended: Professional experience.
In-depth study of all aspects of cylinder head components, diagnosing, disassembly, repair, reassembly, and use of various tools and equipment. Transfer credit: AUTO 769 – CSU.

AUTO 823/779 BLOCK SERVICE (2.5)
Total of 48 class hours. Prerequisite: See above.
A study of the proper methods of disassembling, measuring, machining, and reassembling of engine blocks. Various machining equipment, safe working habits, and the handling of waste coolant, oil and oil filters is included. Transfer credit: AUTO 779 – CSU.

AUTO 830/776 DRIVE LINES AND DIFFERENTIALS (2.5)
Total of 48 class hours. Prerequisite: See above.
A study of the principles and operation of drive lines and differentials. Emphasis will be on measuring and correcting drive line angles, diagnosis, and repair of differentials, and preventive maintenance of these components. Transfer credit: AUTO 776 – CSU.

AUTO 832/777 AUTOMATIC TRANSMISSIONS I (3)
Total of 48 class hours. Prerequisite: See above.
A study of the operating principles of automatic transmissions used on rear wheel drive domestic and import vehicles. Power flow and hydraulic/electrical controls will be studied. Preventive maintenance, diagnosis, and repair procedures are included. Transfer credit: AUTO 777 – CSU.

AUTO 840/773 AUTOMOTIVE ELECTRICAL I (3)
Total of 48 class hours. Prerequisite: See above.
A study of basic electricity and solid state electronics. Emphasis is placed on the use of analog and digital multimeters required to test electrical circuits and solid state components. Preparation for the State Lamp Test is included. Transfer credit: AUTO 773 – CSU.

AUTO 842/772 CLEAN AIR CAR I (3)
Total of 48 lecture hours plus 8 lab hours by arrangement. Prerequisite: See above.
This course is designed to prepare students for the Bureau of Automotive Repair Smog Check licensing exam. Emphasis is placed on smog check rules and regulations, test procedures, and Test Analyzer System (TAS) machine operation. Transfer credit: AUTO 772 – CSU.

NOTE: Any student planning to become a licensed Smog Check Technician should contact the Automotive Department Coordinator at (650) 738-4410 to discuss licensing requirements and course prerequisites mandated by the Bureau of Automotive Repair. It is recommended that this be done prior to enrolling in the Clean Air Car course.

AUTO 844/774 EUROPEAN ELECTRONIC ENGINE CONTROLS (3)
Total of 48 class hours.
This course is designed to explore European electronic engine controls. Emphasis is placed on the theory, operation, and diagnosis of these systems. It is recommended that AUTO 858/758 be completed prior to enrolling in this course. Transfer credit: AUTO 774 – CSU.
AUTO 846/771 AUTOMOTIVE ELECTRICAL II (2)
Total of 36 lecture hours plus 12 lab hours. Prerequisite: See above.
An in-depth study of electrical diagnosis and repair. Starting, charging, and other electrical circuits will be discussed. Proper use of test equipment, shop manuals, and wiring diagrams will be included. Transfer credit: AUTO 771 – CSU.

AUTO 848/775 OSCILLOSCOPES AND EXHAUST GAS ANALYZERS (1.5)
Total of 24 class hours. Prerequisite: See above.
This course will study automotive oscilloscopes and exhaust gas analyzers. Basic diagnostics will be taught using each machine separately and together to teach the most efficient and accurate troubleshooting methods. Transfer credit: AUTO 775 – CSU.

AUTO 850/790 AUTOMOTIVE BRAKES I (2.5)
Total of 48 class hours. Prerequisite: See above.
A study of automotive braking systems. Emphasis will be placed on the theory of operation, diagnosis, and repair of modern braking systems and their related components. Preparation for the State Brake Test and ASE Certification Test is included. Transfer credit: AUTO 790 – CSU.

AUTO 851/753 AUTOMOTIVE SERVICE ADVISING (3)
Total of 48 class hours. Prerequisite: See above.
This course involves the basic study of automotive service advising and procedures. Topics include: greeting the customer, writing the initial repair orders, estimating labor charges, revising repair estimates in accordance with California law, conflict resolution, and returning the vehicle to the customer. Transfer credit: AUTO 753 – CSU.

AUTO 852/791 AUTOMOTIVE CHASSIS II (2)
Total of 36 lecture hours plus 12 lab hours. Prerequisite: See above.
Study of four wheel alignment and steering geometry, including alignment angle theory, testing, and adjustments, with major emphasis on the diagnosis of alignment related problems. It is recommended that AUTO 792/853, Automotive Chassis I, be taken first. Transfer credit: AUTO 791 – CSU.

AUTO 853/792 AUTOMOTIVE CHASSIS I (3)
Total of 48 class hours. Prerequisite: See above.
Study of mounting, balancing, and repair of wheels and tires. In addition, adjustments and repairs of various steering and suspension systems will be covered. Transfer credit: AUTO 792 – CSU.

AUTO 854/754 HIGH PERFORMANCE ENGINES I (3)
Total of 48 class hours. Prerequisite: See above.
This course covers the theory and design of High Performance Engines (part I). Emphasis is placed on the induction system. Topics discussed include intake and exhaust manifold designs, camshaft design and selection, and cylinder head modifications for maximum efficiency. Transfer credit: AUTO 754 – CSU.

AUTO 855/755 HIGH PERFORMANCE ENGINES II (3)
Total of 48 class hours. Prerequisite: See above. Recommended: AUTO 854/754.
This course covers the theory and design of High Performance Engines (part II). Emphasis is placed on crankshaft assembly, lubrication and cooling, power measurements and tuning. Topics include design of pistons, piston rings and pins, connecting rods, crankshafts and bearings. Transfer credit: AUTO 755 – CSU.

AUTO 856/756 CHRYSLER ELECTRONIC ENGINE CONTROLS (3)
Total of 48 class hours. Prerequisite: AUTO 856/756 with grade C or better, or equivalent.
An in-depth study into Chrysler electronic engine controls. The course is designed to explore the operation, diagnosis, and repair of Chrysler on-board computer systems. Transfer credit: AUTO 756 – CSU.

AUTO 857/757 FORD ELECTRONIC ENGINE CONTROLS (3)
Total of 48 class hours. Prerequisite: AUTO 857/757 or equivalent with a C or better.
An in-depth study of the Ford electronic engine controls. The course is designed to explore the operation, diagnosis, and repair of Ford on-board computer systems. Transfer credit: AUTO 757 – CSU.

AUTO 858/758 AUTOMOTIVE COMPUTER CONTROLS (3)
Total of 48 lecture hours plus 16 lab hours. Prerequisite: See above.
A study of the various inputs, outputs, and modes of operation common to most computer controlled systems. General diagnosis will be emphasized using multimeters, lab scopes, and scan tools. Students will be introduced to OBD II systems. This course will also assist technicians to prepare for State of California Smog License and the ASE L1 exams. Transfer credit: AUTO 758 – CSU.

AUTO 859/759 COMPUTER CONTROLS: G.M. (3)
Total of 48 class hours. Prerequisite: AUTO 859/759 or equivalent with a C or better.
An in-depth study of G.M. computer controlled systems in use today. The course is designed to explore the operations, diagnosis, and repair of G.M. on-board computer systems. Transfer credit: AUTO 759 – CSU.

AUTO 860/786 AIR CONDITIONING I (2.5)
Total of 48 class hours. Prerequisite: See above.
Theory and operation of cooling, heating, and air conditioning systems. Lab practices include maintenance, testing, diagnosis, and repair of these systems. Preparation for the ASE Certification Test is included. Transfer credit: AUTO 786 – CSU.

AUTO 861/761 AUTOMOTIVE BRAKES II (1.5)
Total of 24 class hours. Prerequisite: AUTO 861/761 with grade of C or better or equivalent.
A study of the various anti-lock brake systems installed on passenger cars and light trucks. Emphasis on the theory of operation, diagnosis, and repair of computer controlled anti-lock brake systems and their related components. Transfer credit: AUTO 761 – CSU.
AUTO 862/762 TOYOTA/MAZDA ELECTRONIC ENGINE CONTROLS (3)
Total of 48 class hours. Prerequisite: AUTO 858/758 with grade of C or better, or equivalent.

An in-depth study of Toyota/Mazda Electronic Engine Controls. The course is designed to explore the operation, diagnosis, and repair of Toyota/Mazda on-board computer systems. Toyota/Mazda OBD II systems will be discussed. Transfer credit: AUTO 762 – CSU.

AUTO 864/764 EMISSIONS CONTROL SYSTEMS I (1.5)
Total of 24 class hours. Prerequisite: See above.

Study of automotive vehicle emissions control systems, including basic theory, design, and operation. This course will help prepare students planning to enroll in the Clean Air Car course. Transfer: AUTO 764 – CSU.

AUTO 865/765 IGNITION SYSTEMS I (1.5)
Total of 24 class hours. Prerequisite: See above.

A study of automotive ignition systems. Emphasis is placed on the theory, operation, and testing of electronic and distributorless ignition systems. It is recommended that this course be completed prior to enrolling in the Clean Air Car course. Transfer credit: AUTO 765 – CSU.

AUTO 868/768 ON-BOARD DIAGNOSTICS II (OBD-II) (3)
Total of 40 lecture hours plus 24 lab hours. Prerequisite: See above.

Tailored for automotive professionals, this course is an in-depth study of generic On-Board Diagnostics II. Content includes history of OBD-II, comparison of OBD-I and OBD-II, J1930 Common Terminology, Flash Programming, Enhanced Monitors, Fuel Trim Strategies, MIL Strategies and Enabling Criteria, Drive Cycles, I/M Readiness flags, and Diagnostic Trouble Codes. Transfer credit: AUTO 768 – CSU.

AUTO 870/795 DIESEL FUEL SYSTEMS (3)
Total of 48 class hours. Prerequisite: See above.

A study of the entire fuel systems used on diesel-powered vehicles (car, truck and marine) including but not limited to fuel tanks, filters, pumps, metering devices and injectors. Transfer credit: AUTO 795 – CSU.

AUTO 878/778 MANUAL TRANSMISSIONS I (2)
Total of 36 lecture hours plus 12 lab hours. Prerequisite: See above.

A detailed study of the clutch assembly, manual transmissions and transaxles. Topics of study include: theory of operation, friction materials, gear trains and ratios, constant velocity joints, drivelines, and differentials. Transfer credit: AUTO 778 – CSU.

AUTO 881/781 ELECTRICAL III (3)
Total of 48 class hours. Prerequisite: See above.

This course will stress applied techniques in schematic reading and diagnosis of various body electrical circuits, including power doors, mirrors, windows, and seats; sun roofs, air bags, and semiconductor logic gates. This course builds on the concepts introduced in Electrical I and II. Transfer credit: AUTO 781 – CSU.

AUTO 885/785 AUTOMOTIVE HAZARDOUS MATERIALS (1.5)
Total of 24 class hours. Prerequisite: See above.

A comprehensive study of materials used in the Automotive Industry that could be classified as hazardous. Class content is structured to be useful to the technician as well as foremen, management, and owners. Transfer credit: AUTO 785 – CSU.

AUTO 887/787 AUTOMATIC TRANSMISSIONS II (3)
Total of 48 hours lecture/demonstration. Prerequisite: See above.

A study of the operating principles of the automatic transaxle used on the front wheel drive domestic and import vehicles. Power flow and hydraulic/electrical controls will be studied. Also included will be the final drive gear systems. Transfer credit: AUTO 787 – CSU.

AUTO 893/793 ENGINE PERFORMANCE (3)
Total of 48 class hours. Prerequisite: See above.

A study of the engine sub-systems responsible for good engine performance, clean air, and fuel economy. Topics covered include basic engine and ignition system operation and testing using various diagnostic test equipment. This course can be applied towards the education requirements necessary for eligibility to take the B.A.R. Smog Test. Transfer credit: AUTO 793 – CSU.

AUTO 898/798 ALTERNATIVE FUELS I (1.5)
Total of 24 class hours. Prerequisite: See above.

A study of alternative fuels systems and vehicles, including dedicated flexible fuel and Compressed Natural Gas (CNG) systems. An overview of Electric Vehicles (EV) and Advanced Transportation Technologies will also be covered. Transfer credit: AUTO 798 – CSU.

AUTO 899/799 ALTERNATIVE FUELS II (1.5)
Total of 24 class hours. Prerequisite: See above.

A study of gaseous fuels as alternative fuels, including a study of basic equipment manufacturer and popular conversion Compressed Natural Gas fuel systems as well as a basic overview of Liquefied Petroleum Gas and Liquefied Natural Gas systems. Transfer credit: AUTO 799 – CSU.
BIOLOGY

NOTE TO LIFE SCIENCE MAJORS

Students planning to major in Biology, Biotechnology, Botany, Zoology, Ecology, Microbiology, Anatomy, Physiology, Forestry, Wildlife Management, Natural Resources, Medicine, Dentistry, Veterinary Medicine, Optometry, and Pharmacy should complete BIOL 215 and 230 (taken in sequence) and CHEM 210, 220, 234, 235, 237, 238; PHYS 210, 220, and the appropriate mathematics prerequisites.

BIOL 101 MAN IN A BIOLOGICAL WORLD (4)
Three lecture hours and three lab hours per week. Recommended: Eligibility for ENGL 836.

Study of biology as it relates to humans and their environment, with special emphasis on ecological interrelationships, evolution and genetics, and topics of current importance. Recommended for non-science majors to fulfill laboratory science transfer requirement. Transfer credit: UC; CSU (B2, B3).

BIOL 110 PRINCIPLES OF BIOLOGY (4)
Three lecture hours and three lab hours per week. Recommended: Eligibility for ENGL 836.

Using natural selection and physiological survival as a unifying theme, this course deals with the basic problems common to all living systems, and compares the functional solution that various organisms have evolved, illuminating the unity in diversity that characterizes life on earth. Recommended for non-science majors to fulfill laboratory science transfer requirement. Transfer credit: UC; CSU (B2, B3). (CAN BIOL 2).

BIOL 111 NATURAL HISTORY OF CALIFORNIA (4)
Three lecture hours and one three-hour lab period per week with frequent field trips. Recommended: Eligibility for ENGL 836.

Students will investigate the functioning of ecosystems, adaptations of organisms to their environment and natural history of selected organisms. Students will become familiar with natural ecosystems of California, with a primary focus on the San Francisco Bay Area. Laboratory and field investigations will be conducted using the scientific method; critical thinking skills will be emphasized. Recommended for non-science majors to fulfill laboratory science transfer requirements. Transfer credit: UC; CSU (B2, B3). (CAN BIOL 2).

BIOL 130 HUMAN BIOLOGY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

A course designed to provide students with an appreciation of the structure, function, and development of their own bodies. Topics include an introduction to science and to scientific methods of investigation, and some elementary chemistry (no previous background necessary) as a basis for understanding human functions such as digestion, circulation, reproduction and other systems. Some diseases and other causes of body malfunction are discussed. Transfer credit: UC; CSU (B2).

BIOL 140 ANIMALS, PEOPLE AND ENVIRONMENT (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

This course will familiarize the student with the methods and importance of behavioral investigation in animals. Emphasis on past and current human-animal relationships, the impact on animal populations and increasing need for wildlife protection. Transfer credit: UC; CSU (B2).

BIOL 145 PLANTS, PEOPLE AND ENVIRONMENT (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

A survey of plants emphasizing those aspects of plant biology that have affected the lives of people. Topics include: the success and failure of modern agriculture; the impact of humans on the environment; and the importance of plants in solving critical problems of hunger and conservation of energy. Attention is given to modes of inquiry or ways in which scientists carry out their investigations. Transfer credit: UC; CSU (B2).

BIOL 150 INTRODUCTION TO MARINE BIOLOGY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

A non-technical introduction to the scientific method used in studies of marine biology. Major emphasis is given to the natural history of marine animals and plants and their relationship with the oceanic environment. Transfer credit: UC; CSU (B2).

BIOL 215 ORGANISMAL BIOLOGY: CORE I (5)
Three lecture hours and six lab hours per week. Recommended: Eligibility for ENGL 836.

As part of a two-course core program, BIOL 215 is an introductory survey of organismal form and function. Analysis of fundamental biological functions including nutrition, gas exchange, reproduction, natural selection, and ecology using representative living organisms. Transfer credit: UC; CSU (B2, B3). (BIOL 215 + BIOL 230 = CAN BIOL SEQ A.)

BIOL 230 INTRODUCTION TO CELL BIOLOGY: CORE II (5)
Three lecture hours and six lab hours per week. Prerequisite: Completion of BIOL 215; CHEM 210, or equivalent. Recommended: Eligibility for ENGL 836.

As part of a two-course core program, Biology 230 is an introduction to life functions as seen at the cellular level; cellular structure, macromolecular architecture and function, cellular energetics, chemical regulation, photochemical activities, molecular genetics, and genetic engineering. Transfer credit: UC; CSU (B2, B3). (BIOL 215 + BIOL 230 = CAN BIOL SEQ A.)

BIOL 240 GENERAL MICROBIOLOGY (4)
Three lecture hours and three lab hours per week. Prerequisite: Successful completion of a college-level laboratory science course. Recommended: Eligibility for ENGL 836.

Morphology, taxonomy, ecology, and physiology of microorganisms, with emphasis on bacteria. Laboratory techniques on culture and identification of bacteria. Recommended for agriculture, biochemistry, nursing, pre-medical and pre-dental, biotechnology engineering, and other life science majors. Transfer credit: UC; CSU (B2, B3). (CAN BIOL 14).
BIOL 250 HUMAN ANATOMY (4)
Three lecture hours and three lab hours per week. Recommended: Eligibility for ENGL 836; one college-level biology course.

Designed to familiarize the student with the structure of the human body, including cadaver dissection by students. Primarily intended for students of nursing, physiotherapy, respiratory therapy, hygiene, and physical education. An elective course for pre-dental, pre-medical, and pre-veterinarian students. Recommended for general life science majors, respiratory therapy majors and physical education majors. Transfer credit: UC; CSU (B2, B3). (CAN BIOL 10; BIOL 250 + BIOL 260 = CAN BIOL SEQ B.)

BIOL 260 INTRODUCTION TO PHYSIOLOGY (5)
Three lecture hours and six lab hours per week. Prerequisite: CHEM 410, or equivalent. Recommended: Eligibility for ENGL 836; one college-level biology course.

Designed to familiarize the student with the functions of organs and systems of the human body. Includes review of basic processes occurring in cells and application of principles to the study of whole animal systems. Recommended for students majoring in nursing, physiotherapy, respiratory therapy, physical education, psychology, and other related fields. Transfer credit: UC; CSU (B2, B3). (CAN BIOL 12; BIOL 250 + BIOL 260 = CAN BIOL SEQ B.)

BIOL 365 INTERTIDAL INTERPRETATION (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week plus field trips.

This course is designed to familiarize students with the major life forms of the intertidal zone of the California coast, their taxonomic groupings, common names, basic anatomical and physiological characteristics and their role in the ecosystem. Transfer credit: CSU.

BIOL 415 INTRODUCTION TO BIOTECHNOLOGY MANUFACTURING (7)
A total of eighty-two lecture hours and one hundred five lab hours plus thirty-two hours by arrangement. Recommended: Eligibility for ENGL 836 and READ 846, or ENGL 400, or equivalent; and eligibility for MATH 110 or MATH 111, or equivalent.

An introductory course to prepare students possessing transferable skills from other occupations for entry level positions in the biotechnology industry. Course instruction will include basic skills in biology, biomanufacturing, and chemistry, and an introduction to biotechnology careers. Transfer credit: CSU.

BIOL 422 FOUNDATIONS OF BIOTECHNOLOGY (1)
(Credit/No Credit or letter grade.)
One lecture hour per week. Recommended: Eligibility for ENGL 836.

Overview of the origin and development of biotechnology and the bioscience industries. Includes cell growth, career opportunities, and medical and food products. Also includes laboratory experience with bioreactors and making products. Transfer credit: CSU.

BIOL 426 GENETIC ENGINEERING (1)
(Credit/No Credit or letter grade.)
One lecture hour per week. Recommended: Eligibility for ENGL 836.

This course will examine how genes work and how they can be manipulated and cloned. Topics include DNA and protein synthesis, genetic engineering, and DNA fingerprinting. Also includes laboratory experience with DNA analyses: RFLP and PCR. Transfer credit: CSU.

BIOL 430 INTRODUCTION TO IMMUNOLOGY (1)
(Credit/No Credit or letter grade.)
One lecture hour per week. Recommended: Eligibility for ENGL 836.

This course will examine the immune system and how it protects us from disease. Topics include vaccine and antiserum production by traditional methods and by genetic engineering. Also includes laboratory experience with laboratory techniques. Transfer credit: CSU.

BIOL 432 FERMENTATION TECHNOLOGY (1)
(Credit/No Credit or letter grade.)
Total of sixteen lecture hours. Recommended: Eligibility for ENGL 836.

Overview of the origin and development of industrial fermentations. Course will use fermentation of beverages, food ingredients, enzymes, chemicals and pharmaceuticals to demonstrate microbial metabolism.

BIOL 665 SELECTED TOPICS IN BIOLOGY
(.5 or 1 or 1.5 or 2)
(Credit/No Credit or letter grade.)
Eight lecture hours per .5 unit.

This course is designed to develop specific skills, techniques or concepts that are appropriate to biology and/or biotechnology. The course will focus on one specific topic; for example, new or leading edge developments in biotechnology. Transfer credit: CSU.

BIOL 675 HONORS COLLOQUIUM IN BIOLOGY (1)
One lecture hour per week. Prerequisite: Completion of or concurrent enrollment in any non-Honors biology level 100 or 200 course.

Readings, discussion, lectures and activities covering selected advanced topics in biology to be determined by the Biology Department and the Honors Program. May be repeated three times for credit, but may not repeat topics successfully completed. Honors credit will be earned for both Biology 675 and the concurrently enrolled course. Transfer credit: UC; CSU.
BUSINESS

See also listings under Computer Applications & Office Technology and Fashion Merchandising.

The Business Division of Skyline College offers courses that lead to either a transfer program or a career program with an AA/AS degree and/or certificate of proficiency in a specified field.

TRANSFER STUDENTS

For information concerning the transfer requirements of other colleges and universities, students should consult the catalogs of the colleges and universities concerned, or their Skyline College counselor.

BUS. 100 INTRODUCTION TO BUSINESS (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
A basic orientation course in business designed to develop an understanding of the role of business in the economy and as an aid in selecting a field of vocational specialization. Transfer credit: UC; CSU (D3).

BUS. 101 HUMAN RELATIONS AT WORK (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
The application of basic principles in the behavioral sciences to practical problems of personal growth, self-management, and the development of healthy, productive interpersonal relationships, including those typically encountered at work. Transfer credit: CSU (D3).

BUS. 103 INTRODUCTION TO BUSINESS INFORMATION SYSTEMS (3)
Three lecture hours plus one lab hour by arrangement per week. Prerequisite: CAOT 104 or equivalent. Recommended: Eligibility for ENGL 836.
An introduction to computer systems and software applications and their impact on the business environment. Topics include hardware, software, theory and architecture, computer terminology, Windows, and software applications used as problem solving tools for individual and group projects. Transfer credit: UC; CSU.

BUS. 107 DEALING WITH DIFFICULT PEOPLE (1)
(Credit/No Credit or letter grade.)
This course provides development of skills needed by students to effectively interact and deal with difficult people, angry or upset clients, customers, co-workers, or significant others. An introduction to the conflict resolution process. Transfer credit: CSU.

BUS. 109 WORKING WITH PEOPLE WORLDWIDE (1)
(Credit/No Credit or letter grade.)
This course is designed to acquaint students with the differences in business dealings and working environments on an international basis. Emphasis is on understanding culture, society, management styles, and the work ethic in various countries. Transfer credit: CSU.

BUS. 111 CRASH COURSE TO SUCCESS IN ONLINE LEARNING (1)
(Offered online only.)
(Credit/No Credit.)
A total of sixteen lecture hours plus four lab hours by arrangement.
This course provides students with basic knowledge and skills required to become a successful online student. Topics include the characteristics and challenges of online learning, learning styles, the taxonomy of online courses, online learning strategies, technical skills, online test-taking skills, and time and stress management in an online learning environment. May be repeated once for credit. Transfer credit: CSU.

BUS. 115 BUSINESS MATHEMATICS (1.5-3)
Three lecture hours per week and one lab hour per week. Prerequisite: MATH 120 or equivalent. Recommended: Eligibility for ENGL 836.
Introduction to the mathematics applications required in entry level positions in business in accounting, merchandising, banking, and real estate. Introduction to the solution of problems on the ten-key electronic printing calculator. Transfer credit: CSU.

BUS. 120 MATHEMATICAL ANALYSIS FOR BUSINESS (3)
Three lecture hours per week plus one lab hour per week, by arrangement. Prerequisite: MATH 120 or equivalent. Recommended: Eligibility for ENGL 836.
To give students the mathematical tools they will need to succeed in the core courses in the business curriculum at the state universities. Includes introduction to calculus including applications; probability, including expected monetary value and decision making; mathematics of finance, including amortization. Transfer credit: UC, CSU (B4).

BUS. 123 STATISTICS (3)
Three lecture hours per week plus one lab hour per week by arrangement. Prerequisite: MATH 120 or equivalent. Recommended: BUS. 120 and eligibility for ENGL 836.
Introduction to descriptive techniques and methods of inference. Includes classification of data, measure of central tendency and dispersion, normal curve, hypothesis testing, correlation and regression analysis, trend analysis. Also introduction to probability and probability distributions. Transfer credit: UC; CSU (B4).

BUS. 150 SMALL BUSINESS MANAGEMENT (3)
Three lecture hours per week. Recommended: Completion of MATH 811; eligibility for ENGL 836.
Examination of the opportunities and hazards of small business operation. Significant areas of vital interest to the prospective independent business person, including legal form of organization, site location, financing, handling of personnel and overall management procedures. For business students who plan to establish or supervise a small business. Transfer credit: CSU.
BUS. 153 PLANNING A BUSINESS STARTUP (2)
A total of thirty-two lecture hours.
This course presents practical procedures for planning the opening of a new small business. Topics include determining whether one is a “good fit” for an entrepreneurial career, “profit objectives,” constructing capital budgets, realities of finding financing, elementary accrual-basis accounting, profit margin analysis, projecting cash flows, accrual profits, and market research. Transfer credit: CSU.

BUS. 180 FUNDAMENTALS OF MARKETING (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
An overview of modern marketing techniques used to attract and retain customers. Course focuses on identifying and applying contemporary marketing techniques to a variety of industries, including service and product oriented enterprises. Topics include strategies of advertising, sales, public relations, and promotions, and how these are used to influence buyer behavior. Transfer credit: CSU.

BUS. 181 PERSONAL POWER AND LEADERSHIP (1.5)
(Credit/No Credit or letter grade.)
Students build confidence, leadership abilities, and prepare for business world challenges. Topics include traits of successful managers, techniques to develop personal power, and career path exploration. Transfer credit: CSU.

BUS. 182 TECHNIQUES OF PROMOTION (3)
Three lecture hours per week. Recommended: BUS. 180 or H.R. 101; eligibility for ENGL 836.
Introduces students to the techniques and procedures of modern sales promotion. Lecture and class discussion focus on concept and planning of an event. Students will then conduct a specially sponsored campus-wide promotion for General Motors. Some daytime field work is required. Transfer credit: CSU.

BUS. 183 BUILDING HIGH PERFORMING TEAMS (1.5)
(Credit/No Credit or letter grade.)
Students will learn the newest techniques of organizing and leading highly effective work teams and departments. Topics include creating a clear vision and purpose, empowering and involving all members, creating an open and productive environment, meeting deadlines, and more. Transfer credit: CSU.

BUS. 187 MARKETING COMMUNICATIONS (3)
Three lecture hours per week.
Introduces marketing communications tools companies use to communicate with target customers and audiences. Presents an overview of promotional methods – advertising, direct marketing, sales promotion, public relations, and personal selling. Students learn to deliver unified, high-impact messages about a company and its products by preparing detailed marketing communications plans. Transfer credit: CSU.

BUS. 190 RETAILING, E-COMMERCE AND BUYING (3)
Three lecture hours per week. Recommended: Completion of BUS. 115 or MATH 811; eligibility for ENGL 836.
General overview of retailing, which includes an introduction to buying, pricing, sales promotion, store management and organization, retail calculations, retail salesmanship, and service policies. Topics include computer-generated sales and advertising. Transfer credit: CSU.

BUS. 200 INTRODUCTION TO INTERNATIONAL BUSINESS (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Introduction to strategy and management of international business. Topics will include international trade theory and how companies develop competitive advantage in international markets, marketing, production and financial management, the organization of human resources, and management of risk. Transfer credit: CSU (D3).

BUS. 201 BUSINESS LAW (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Origin, development and functions of the law and the legal environment with the objective of promoting a general understanding of legal reasoning. Framework within which the judicial process takes place. Legal problems pertaining to contracts and related topics, sales, and the impact of law on economic enterprise. Transfer credit: UC; CSU (See counselor for exceptions). (CAN BUS 8).

BUS. 210 INTERNATIONAL FINANCE (1.5)
A minimum of 24 lecture hours total. Recommended: Eligibility for ENGL 836.
This course introduces and examines the practical aspects of international trade finance. The course includes topics such as different types of lenders, domestic and foreign government assistance programs for trade assistance, methods of payment, trade financing, and managing risks in international trade finance. Transfer credit: CSU (D3).

BUS. 221 INTERCULTURAL BUSINESS COMMUNICATION (1.5)
(Credit/No Credit or letter grade.)
Total of 24 lecture hours. Recommended: Eligibility for ENGL 836.
This course introduces and examines the practical aspects of intercultural business communication. The course includes topics in the nature, pattern and comparisons of intercultural business communication, business and social customs, intercultural negotiation practice and strategies, communication in intercultural and international contexts, and region-specific business cultures. Transfer credit: CSU.
BUS. 225 FOUNDATIONS OF GLOBAL E-COMMERCE (1.5)  
(Credit/No Credit or letter grade.)  
A minimum of 24 lecture hours and 8 lab hours by arrangement.  
Recommended: Eligibility for ENGL 836 or equivalent.  
This course introduces the fundamentals of electronic commerce. Students will learn how to conduct and manage e-commerce and the major applications, opportunities and limitations in both domestic and international business. Topics include e-payment transactions; legal, taxation and privacy issues; and globalization in e-commerce. 
Transfer credit: CSU.

BUS. 226 GLOBAL BUSINESS NEGOTIATION (1.5)  
(Credit/No Credit or letter grade.)  
A minimum of 24 lecture hours. Recommended: Eligibility for ENGL 836 or equivalent.  
Introduction to the skills necessary to conduct successful negotiations and application of these skills in domestic and international settings. Students will learn the essentials of effective negotiating techniques and explore the elements of cultural diversity that come into play and affect negotiations among international parties. 
Transfer credit: CSU.

BUS. 227 GLOBAL BUSINESS CONTRACTS (1.5)  
(Credit/No Credit or letter grade.)  
A minimum of 24 lecture hours and 8 lab hours by arrangement. Recommended: Eligibility for ENGL 836 or equivalent.  
Introduction to commercial agreements between parties trading across international borders. Topics include commercial contracts, quality control, compliance with government regulations, protection of intellectual property rights, dispute resolution, negotiations, performance, and contract enforcement. 
Transfer credit: CSU.

BUS. 230 INTRODUCTION TO INTERNATIONAL MARKETING (1.5)  
(Credit/No Credit or letter grade.)  
Total of twenty-four lecture hours. Recommended: Eligibility for ENGL 836.  
This course provides a practical approach to international marketing using an in-depth analysis of the political, social, economic, cultural and legal environments in which international marketing occurs. It provides a set of conceptual and analytical tools to help students apply the “Four P’s” – product, promotion, price and place to international marketing. 
Transfer credit: CSU.

BUS. 240 INTERNATIONAL LOGISTICS AND TRANSPORTATION (1.5)  
(Credit/No Credit or letter grade.)  
A total of twenty-four lecture hours plus eight lab hours by arrangement. Recommended: Eligibility for ENGL 836 or equivalent.  
Introduction to the practical aspects of international transportation and logistics and their role in international trade. Topics included are international transportation, logistics, customs regulations, documentation, port and facility operations, and inventory management. 
Transfer credit: CSU.

BUS. 241 DOING BUSINESS IN ASIA (1.5)  
(Credit/No Credit or letter grade.)  
A minimum of 24 lecture hours and 8 lab hours by arrangement. Recommended: Eligibility for ENGL 836 or equivalent.  
Exploration of business strategies in the Asia-Pacific region. Students will learn how and why business strategies are pursued by multinational corporations doing business in Asia. Students will gain a better insight into the business environment and business protocol in Asia. Topics include business environmental analysis, strategy formulation, strategy implementation and control, and profiles of Japan, Korea, China, Singapore and Hong Kong. 
Transfer credit: CSU.

BUS. 242 DOING BUSINESS IN EUROPE (1.5)  
(Credit/No Credit or letter grade.)  
A minimum of 24 lecture hours and 8 lab hours by arrangement. Recommended: Eligibility for ENGL 836 or equivalent.  
Analysis of the business culture of European countries. Students will learn the major components of the current economic, political and cultural reality of the European nations in order to develop the knowledge and understanding essential to conducting successful business dealings in Europe. 
Transfer credit: CSU.

BUS. 243 LEGAL ENVIRONMENT OF INTERNATIONAL BUSINESS (1.5)  
(Credit/No Credit or letter grade.)  
A minimum of 24 lecture hours and 8 lab hours by arrangement. Recommended: Eligibility for ENGL 836 or equivalent.  
Introductory course to explore various topics related to the legal implications the financial, economic, cultural and political environment of international business. Through analysis of case studies and skill-building activities, students will develop a theoretical, practical approach to doing business as a multinational company in a global environment. 
Transfer credit: CSU.

BUS. 244 DOING BUSINESS IN LATIN AMERICA (1.5)  
(Credit/No Credit or letter grade.)  
A minimum of 24 lecture hours and 8 lab hours by arrangement. Recommended: Eligibility for ENGL 836 or equivalent.  
This course covers the practical aspects of doing business in Latin America. Students will gain additional insight into business protocol and tactics of Latin America. Topics include political, economic, cultural and business environments; opportunity analysis; trade agreements; business strategy; and country and regional profiles of Mexico, the Caribbean, Central America, and South America. 
Transfer credit: CSU.

BUS. 245 INTRODUCTION TO CUSTOMS BROKERAGE (1.5)  
(Credit/No Credit or letter grade.)  
A minimum of 24 lecture hours and 8 lab hours by arrangement. Recommended: Eligibility for ENGL 836 or equivalent.  
Introduction to the basic regulations, procedures and documentation required in customs brokerage. The course will provide students with basic knowledge and insight into U.S. Customs Brokerage and the Customs Broker examination. Topics include procedures of U.S. customs entry, clearance, documentation, classification, valuation, tariffs, quotas, duty rates, restrictions, prohibitions, and regulations. 
Transfer credit: CSU.
BUS. 279 IMPORT/EXPORT MANAGEMENT (1.5)
(Credit/No Credit or letter grade.)
Total of twenty-four lecture hours. Recommended: Eligibility for ENGL 836.

An overview of the practical aspects of import/export procedures with an emphasis on small- to medium-sized companies. The complete international trading transactions will be covered, including sourcing, financing, freight forwarding, payment methods, international commercial terms, and documentation. Transfer credit: CSU.

BUS. 400 BUSINESS ENGLISH (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

A comprehensive review of English as used by employers. Business-oriented materials are used; areas covered include grammar, punctuation, capitalization, spelling and vocabulary. Designed for anyone who must communicate in writing in a business environment. Transfer credit: CSU.

BUS. 401 BUSINESS COMMUNICATIONS (3)
Three lecture hours per week. Prerequisites: Completion of or enrollment in BUS. 400 or one college English course.

Development of writing skills for actual business situations. Covers such topics as analyzing one’s audience and goals; organizing correspondence to get results; writing clearly, concisely and forcefully; revising and editing; and dictating techniques. Provides practical experiences in the kind of clear writing today’s employers are seeking. Recommended for business majors and for anyone whose job includes writing letters, memos and reports. Transfer credit: CSU.

BUS. 443 LAW OFFICE PROCEDURES (1-3)
A total of sixteen lecture hours plus twenty-four lab hours by arrangement per unit. Prerequisites: CAOT 212 or 214 and BUS. 400 or equivalent skills. Recommended: Eligibility for ENGL 836.

Intensive training in procedures applicable to secretarial duties in law offices. Emphasis on legal terminology, legal documents and correspondence, dictation, and transcription. Also listed as LEGL 443. Transfer credit: CSU.

BUS. 485 MEDICAL TERMINOLOGY (3)
Three lecture hours per week. Recommended: Completion of or concurrent enrollment in one college English course.

Designed to give students a basic background in medical terminology as used by medical transcriptionists, court reporters, law related occupations, and allied health occupations. The prefixes, roots, and suffixes of commonly used medical words are presented. Proper names of anatomical structures and their relationship to each other are covered by body system. Also listed as HSCI 484. Transfer credit: CSU.

BUS. 486 MEDICAL TRANSCRIPTION (1-4)
One class hour plus four lab hours per week. Prerequisites: Concurrent enrollment in BUS. 485; ability to type 50 net wpm. Recommended: ENGL 836 or equivalent.

Intensive training in medical transcription that includes doctor-dictated history and physicals, surgical reports, operative procedures, x-ray, pathology, and nuclear medicine reports. May be repeated no more than two times for credit. Transfer credit: CSU.

BUS. 487 MEDICAL TRANSCRIPTOR INTERNSHIP (1-4)
Fifty-one hours per unit. Prerequisites: BUS. 485 and 486 or equivalent.

On-the-job training in a hospital or medical office in transcribing actual doctor dictation from cassettes. Individual conferences with instructor. Transfer credit: CSU.

BUS. 665 SELECTED TOPICS IN BUSINESS (.5 or 1 or 1.5)
(Credit/No Credit or letter grade.)
This course is designed to develop specific skills that are utilized in business settings. The course will focus on one specific topic; for example, a specific software package, telephone techniques, time management, human relations skills, small business management, etc. Transfer credit: CSU.

BUS. 670 BUSINESS WORK EXPERIENCE (1-4)
(Credit/No Credit.)
Three to four meetings with instructor. Seventy-five to three hundred hours per semester on-the-job. Prerequisite: Employment in a college approved job directly related to the student’s CAOT major.

Students receive on-the-job training in an office environment under the primary supervision of a business employer. Course should be taken within the last two semesters of student’s certificate or AS program completion. For a detailed description of Vocational Cooperative Education, see the Cooperative Education section of this Catalog. For further information about Computer Applications & Office Technology majors, please contact your counselor or the coordinator of the CAOT Program. Transfer credit: CSU.

CAREER AND PERSONAL DEVELOPMENT

These courses offer students the opportunity to gain knowledge about themselves and their behavior and to develop techniques for successful educational, career and personal planning.

CRER 100 HOW TO SUCCEED IN COLLEGE (1)
(Credit/No Credit.)
This course will provide students with an opportunity to explore their attitudes toward learning and college life. Class activities will include evaluation of individual learning styles and instruction in effective ways of coping with school-related anxiety. Class exercises will help students learn assertiveness and time management skills to enhance their educational experience. Study skills will be included when applicable. Transfer credit: CSU.
CRER 111 DECISION MAKING (.5 or 1)  
(Credit/No Credit.)
This course is designed to provide the student with an introduction to the decision making process which stresses the significance of clearly defined values, critical thinking, the importance of gathering and evaluating information, identifying alternatives, and learning about personal risk-taking. Transfer credit: CSU (E1).

CRER 132 JOB SEARCH (.5 or 1)  
(Credit/No Credit.)
A course designed to develop practical job search skills to increase the student’s options and opportunities for locating immediate and appropriate job sites. Emphasis will be placed on developing the self-knowledge and skills necessary to write a traditional resume, participate in a job interview, and develop a plan of action for employment in the local job market. Transfer credit: CSU (E1).

CRER 135 SKILLS/SELF-ASSESSMENT (.5 or 1)  
(Credit/No Credit.)
This course will assist students in assessing their present skills, abilities and preferences and in applying them to decisions regarding future goals and aspirations. Class activities will include a number of self-assessment exercises in which the student will draw from his/her life’s experiences to arrive at individualized information necessary for personal, academic and career choices. Transfer credit: CSU (E1).

CRER 136 CAREER PLANNING (.5 – 1)  
(Credit/No Credit.)
This course will assist students in the on-going process of career planning. Class activities will include assessing individual preferences in work environments, people environments, lifestyles, geography and interests. They will provide students with opportunities to use information regarding personal values and functional skills in career planning strategies. Transfer credit: CSU (E1).

CRER 137 LIFE AND CAREER PLANNING (3)  
(Credit/No Credit or letter grade.)
Recommended: Eligibility for ENGL 836.
This course is designed for the student who is undecided about an occupation. It provides a comprehensive approach to life and career planning. Vocational interest tests, various insights into his/her abilities, interests, and personality. Occupational trends and ways of learning more about specific careers will be explored. Individual conferences are available to students as well as use of the Career Center. Transfer credit: CSU (E1).

Note: This course covers material similar to that of CRER 132, 135 and 136 combined.

CRER 140 PEER COUNSELING (1 or 2 or 3)  
(Credit/No Credit.)
Recommended: Eligibility for ENGL 836 or ENGL 400.
Prepares students to serve as informational resources to peers. Emphasis on training in basic counseling, assessment, provision of information and referral. Helps students consider their own potential in the “helping professions.” Opportunity for supervised field experience. May be repeated for a total of 3 units. Transfer credit: CSU.

CRER 410 COLLEGE AND CAREER ORIENTATION  
(0.5 OR 1 OR 2)  
(Credit/No Credit.)
The student is acquainted with college life in general and with the campus facilities and activities of Skyline College in particular. Students will be assisted in developing a sound educational plan. Study skills assessment, time management, personal and social adjustment, and interest and aptitude assessment are some of the topics included. Transfer credit: CSU.

CRER 600 ASSESSMENT, ORIENTATION AND ADVISEMENT (0)  
(Not applicable to the Associate Degree.)
Following the matriculation steps the student will participate in 1) assessment and interpretation of ESL, English, reading and mathematics skill levels; 2) an orientation introducing educational options, majors, programs and services; and 3) advisement and selection of classes based on assessments, multiple measures, needs and interests. (Open entry.) (Not applicable to the Associate Degree.)

CRER 650 GUIDANCE SEMINAR GROUP (0.5 or 1 or 2)  
(Credit/No Credit or letter grade.)
Designed to help students in understanding and dealing with their personal, social, professional, and cross-cultural concerns. Topics and course descriptions may differ each semester and will be designated in the current class schedule. Transfer credit: CSU.

CRER 665 LIFE STYLES HEALTH ISSUES (0.5 or 1 or 1.5 or 2)  
(Credit/No Credit or letter grade.)
Prerequisite: ENGL 400/800 eligibility or demonstration of equivalent competency.
Explores contemporary topics or life styles as they relate to the health of individuals or society. Transfer credit: CSU (E1).

CRER 801 ENSURING STUDENT SUCCESS (0)  
(Open entry.) (Not applicable to the Associate Degree.)
Three lecture hours plus one hour by arrangement.
This course is designed for students experiencing academic difficulties. Students will participate in: 1) a workshop providing information on Skyline College policies and resources, an overview of higher education, time management, and effective study skills and 2) individual counseling to develop a student educational plan and to discuss strategies for improving the student’s academic record. (Open entry.) (Not applicable to the Associate Degree.)
CHEMISTRY

CHEM 112 CHEMISTRY IN ACTION (4)
Three lecture hours and three lab hours per week.

A course devoted to the following objectives: To provide some insight, practice, and training in scientific methodology and thinking; to recognize what is science and what is “pseudo-science;” to offer a “chemical perspective” into thinking about many everyday events and happenings; to provide training in the making of measured judgments and to produce a healthy skepticism about what is “chemically” reasonable or unreasonable; to protect one against life’s charlatans; and to provide the type of personal satisfaction which comes of being knowledgeable and able to communicate intelligently. Transfer credit: UC; CSU (B1, B3).

CHEM 192 ELEMENTARY CHEMISTRY (4)
(Credit/No Credit or letter grade.)
Three lecture hours and three lab hours per week. Prerequisite: MATH 110 or equivalent. Recommended: Eligibility for ENGL 836.

Principles of inorganic chemistry, nomenclature, atomic structure; chemical calculations involving solids, liquids, and gasses. The lab introduces essential techniques of qualitative measurements. Designed for those students who plan to take CHEM 210. Transfer credit: UC; CSU. (CAN CHEM 6).

CHEM 210 GENERAL CHEMISTRY I (5)
Three lecture hours and six laboratory hours per week. Prerequisites: Completion of high school chemistry or CHEM 192 with a grade of “C” or better, or equivalent. Completion of MATH 120 or equivalent with grade of “C” or better, or appropriate math placement test score.

General chemistry, including a study of atomic and molecular structures, stoichiometric calculations, thermochemistry, gas laws, physical states, atomic electron orbital configuration and bonding. Transfer credit: UC; CSU (B1, B3). (CAN CHEM 2; CHEM 210 + 220 = CAN CHEM SEQ A).

CHEM 220 GENERAL CHEMISTRY II (5)
Three lecture hours and six laboratory hours per week. Prerequisite: Completion of CHEM 210 with a grade of “C” or better, or equivalent.

The second semester of the standard year course in college level chemistry. Topics include acid-base chemistry, equilibrium, kinetics, thermodynamics, electrochemistry, coordination chemistry and nuclear chemistry. Transfer credit: UC; CSU (B1, B3). (CAN CHEM 4; CHEM 210 + 220 = CAN CHEM SEQ A).

CHEM 234 ORGANIC CHEMISTRY I (3)
Three lecture hours per week. Prerequisite: CHEM 220 with grade of “C” or better. To be taken concurrently with CHEM 237, Organic Chemistry I Laboratory.

Nomenclature, structure, reactions and reaction mechanisms of organic compounds, with emphasis on alkanes, alkenes, alkynes, and alkyl halides. Structural isomerism and stereo isomerism. Infrared and nuclear magnetic resonance spectroscopy is an integral part of the course with emphasis on structural analysis. Transfer credit: UC; CSU (B1).

CHEM 235 ORGANIC CHEMISTRY II (3)
Three lecture hours per week. Prerequisite: CHEM 234 and 237 with grades of “C” or better. To be taken concurrently with CHEM 238, Organic Chemistry II Laboratory.

Nomenclature, structure, reactions and reaction mechanisms of aromatic compounds, alcohols, ethers, carbonyl and acyl groups, amines, carbohydrates, lipids, amino acids and proteins. Transfer credit: UC; CSU (B1).

CHEM 237 ORGANIC CHEMISTRY LAB I (2)
Six lab hours per week. Prerequisite: CHEM 234; the two classes may be taken concurrently.

Laboratory designed to accompany CHEM 234. Transfer credit: UC; CSU (B3).

CHEM 238 ORGANIC CHEMISTRY LAB II (2)
Six lab hours per week. Prerequisite: CHEM 235; the two classes may be taken concurrently.

Laboratory designed to accompany CHEM 235. Transfer credit: UC; CSU (B3).

CHEM 410 CHEMISTRY FOR HEALTH SCIENCES (4)
Three lecture hours and two lab hours per week. Prerequisite: MATH 110 or one year of high school algebra. Recommended: Eligibility for ENGL 836.

Survey of the principles of chemistry; chemical properties of inorganic and organic substances; equilibrium in chemical systems with special emphasis on chemical processes in the body. The lab introduces qualitative and quantitative techniques and manipulations with selected inorganic, organic and biochemical reactions. Designed for Health Science majors (i.e., respiratory therapy, home economics, physical education, nursing). Not intended for students majoring in physical or life sciences. Transfer credit: CSU (B1, B3).

CHINESE

Language Lab and Listening Requirement: Students enrolled in foreign language courses are required to take use of the language lab as prescribed by each department. Imitation, response, and independent practice are integral features of the study of a foreign language at the College.

CHIN 111, 112 ELEMENTARY CHINESE I AND II (3, 3)
(Credit/No Credit or letter grade.)
Three lecture hours and one lab hour by arrangement per week. Prerequisite: CHIN 112 – CHIN 111 or equivalent.

A two-semester sequence covering the same course material as a university-level first semester Mandarin Chinese course. Instruction and practice in understanding, speaking, reading, and writing. Transfer credit: UC; CSU.
COMPUTER APPLICATIONS AND OFFICE TECHNOLOGY

See also listings under Computer Science and Telecommunications & Network Information Technology.

CAOT 100 BEGINNING COMPUTER KEYBOARDING (1.5) (Credit/No Credit)
A minimum of 24 lecture hours plus 16 lab hours by arrangement.
An introductory typing course for students who want to learn how to type and develop skill using the computer keyboard. Emphasis is on developing correct techniques and basic keyboarding skills. No typing applications or formatting will be taught. May be repeated once for credit. Transfer credit: CSU.

CAOT 101 COMPUTER KEYBOARDING SKILL BUILDING (1.5-3) (Credit/No Credit)
A minimum of 24 to 48 lecture hours plus 16 to 32 lab hours by arrangement. Prerequisite: CAOT 100 or equivalent; ability to type without looking at the keyboard.

This course is designed to improve a student’s ability to type rapidly and accurately for sustained periods of time without looking at the keyboard. Students may also use the course to improve typing speed and accuracy. May be repeated until 6 units have been earned. (Open entry.) Transfer credit: CSU.

CAOT 104 INTRODUCTION TO COMPUTERS WITH WINDOWS I (1.5) (Credit/No Credit or letter grade.)
A minimum of 24 to 48 lecture hours plus 8 lab hours by arrangement. Recommended: Eligibility for ENGL 836.

Through hands-on experience, students will be introduced to the PC-compatible computers, the Windows operating system, word processing, spreadsheets, and other business-oriented applications. In a lecture/demonstration format, students will gain a basic knowledge of hardware-software interaction. May be repeated once for credit. Transfer credit: CSU.

CAOT 105 INTRODUCTION TO COMPUTERS WITH WINDOWS II (1) (Credit/No Credit or letter grade.)
A minimum of 16 lecture hours plus 8 lab hours. Prerequisite: CAOT 104 or equivalent experience.

Students will acquire skills to become independent computer users. Information will be provided on configuring and purchasing Windows computers. Topics covered include operating systems, hardware, and some DOS. May be repeated once for credit. Transfer credit: CSU.

CAOT 200 INTRODUCTION TO MS OFFICE SUITE (2) (Credit/No Credit or letter grade.)
A minimum of 32 lecture hours plus 22 lab hours by arrangement. Prerequisite: CAOT 104 or equivalent.

Students receive introductory, hands-on exposure to the four Microsoft Office Suite applications: word processing (Word), spreadsheets (Excel), databases (Access), and presentation graphics (PowerPoint). A cursory preview and discussion on techniques for integrating (sharing) information between applications is given at the end of the course. May be repeated once for credit. Transfer credit: CSU.

CAOT 201 INTEGRATION OF MS OFFICE APPLICATIONS (1) (Credit/No Credit or letter grade.)
A minimum of 16 lecture hours plus 10 lab hours by arrangement. Prerequisite: CAOT 200 or equivalent.

Students will learn how to integrate the four Microsoft Office applications (Word, Excel, Access and PowerPoint) by inserting documents, linking information, and embedding objects using exercises and case studies. Microsoft Office’s Internet features are also covered, and students will learn how to convert documents to HTML and create Web presentations. May be repeated once for credit. Transfer credit: CSU.

CAOT 212 WORD PROCESSING I: WORDPERFECT (1) (Credit/No Credit or letter grade.)
A minimum of 16 lecture hours plus 16 lab hours by arrangement. Prerequisite: Knowledge of the computer keyboard or completion of a typing class.

Using a hands-on approach, students will use a computer and word processing software to learn the theories and practical applications of the current version of WordPerfect to create, edit, format, manage and enhance documents using customized features. May be repeated once for credit. Transfer credit: CSU.

CAOT 213 WORD PROCESSING II: WORDPERFECT (2) (Credit/No Credit or letter grade.)
A minimum of 32 lecture hours plus 32 lab hours by arrangement. Prerequisite: CAOT 212 or 214.

Using a hands-on approach, students will expand their word processing knowledge and skills by learning theories and practical applications of the current version of WordPerfect to focus on advanced applications such as multi-page documents, merges, tables, graphics, macros and styles. May be repeated once for credit. Transfer credit: CSU.

CAOT 214 WORD PROCESSING I: WORD (1) (Credit/No Credit or letter grade.)
A minimum of 16 lecture hours plus 16 lab hours by arrangement. Prerequisite: Knowledge of the computer keyboard or completion of a typing class.

Using a hands-on approach, students will use a computer and word processing software to learn the theories and practical applications of the current version of Word to create, edit, format, manage and enhance documents using customized features. May be repeated once for credit. Transfer credit: CSU.

CAOT 215 WORD PROCESSING II: WORD (2) (Credit/No Credit or letter grade.)
A minimum of 32 lecture hours plus 32 lab hours by arrangement. Prerequisite: CAOT 212 or 214.

Using a hands-on approach, students will expand their word processing knowledge and skills by learning theories and practical applications of the current version of Word to focus on advanced applications such as multi-page documents, merges, tables, graphics, macros and styles. May be repeated once for credit. Transfer credit: CSU.
CAOT 217 WORD PROCESSING III (1-3)
(Credit/No Credit or letter grade.)
A minimum of 16 lecture hours plus 16 lab hours by arrangement per unit. Prerequisite: CAOT 213 or 215 or equivalent.

Using a hands-on approach, students become proficient with the advanced features of word processing. In-depth coverage of tables, outlines, merges, style sheets and templates, macros, desktop publishing features, Web documents, online forms, and applications integration. May be repeated once for credit. Transfer credit: CSU.

CAOT 221 DESKTOP PUBLISHING:
MICROSOFT PUBLISHER (1.5)
(Credit/No Credit or letter grade.)
A minimum of 24 lecture hours plus 16 lab hours by arrangement. Prerequisite: Successful completion of CAOT 214 or CAOT 200, or equivalent.

Using Microsoft Publisher, students will learn to create professional-looking brochures, newsletters, flyers, certificates, menus, business cards, stationery, and more. The course will include guidelines for combining text and art work effectively to create eye-catching documents for personal and business use. Pre-designed Publisher templates will also be used. May be repeated once for credit. Transfer credit: CSU.

CAOT 222 BUSINESS PRESENTATIONS I: POWERPOINT (1)
(Credit/No Credit or letter grade.)
A minimum of 16 lecture hours plus 8 lab hours by arrangement. Prerequisite: CAOT 104 or equivalent.

Students will learn to identify elements that make a business presentation effective and will use the Microsoft PowerPoint program to create their own computer-generated business presentations. May be repeated once for credit. Transfer credit: CSU.

CAOT 223 BUSINESS PRESENTATIONS II: POWERPOINT (1)
(Credit/No Credit or letter grade.)
A minimum of 16 lecture hours plus 8 lab hours by arrangement. Prerequisite: CAOT 222.

Students will cover advanced presentation concepts to enhance proficiency in embedding visuals and sound clips; edit templates and modify color schemes to create PowerPoint presentations that will be converted to an HTML format and uploaded to a Web page. May be repeated once for credit. Transfer credit: CSU.

CAOT 225 SPREADSHEETS I (1)
(Credit/No Credit or letter grade.)
A minimum of 16 lecture hours plus 8 lab hours by arrangement. Recommended: CAOT 104 or equivalent.

An introduction to Microsoft Excel software, which is used to build, format and print spreadsheets. Topics include the creation of charts and the use of basic functions and formulas. May be repeated once for credit. Transfer credit: CSU.

CAOT 226 SPREADSHEETS II (2)
(Credit/No Credit or letter grade.)
A minimum of 32 lecture hours plus 16 lab hours by arrangement. Prerequisite: CAOT 225 or equivalent.

Students will advance their knowledge of spreadsheets using Microsoft software by learning how to design, enhance, link and consolidate worksheets, as well as apply statistical and financial function design. Additional topics include advanced printing techniques and database management features. Transfer credit: CSU.

CAOT 230 DATABASE APPLICATIONS I (1)
(Credit/No Credit or letter grade.)
A minimum of 16 lecture hours plus 16 lab hours by arrangement. Prerequisite: CAOT 104 or equivalent. Recommended: Eligibility for ENGL 836.

Learn to use Windows database management software package, Microsoft Access, on a PC with a hands-on introduction to database administrative tasks: data input, storage, retrieval, editing and reporting. May be repeated once for credit. Transfer credit: CSU.

CAOT 231 DATABASE APPLICATIONS II (2)
(Credit/No Credit or letter grade.)
A minimum of 32 lecture hours plus 32 lab hours by arrangement. Prerequisite: CAOT 230.

An advanced database course for the student who wants to become professionally competent in database management software to perform advanced administrative tasks using Microsoft Access for business and personal data-handling tasks; emphasis on relational and multiple database design, advanced storage, retrieval, queries, reporting, SQL and Visual Basic for Access. May be repeated once for credit. Transfer credit: CSU.

CAOT 301 MAXIMIZING YOUR EMPLOYMENT POTENTIAL (1)
(Credit/No Credit or letter grade.)
A minimum of 16 lecture hours plus 8 lab hours by arrangement.

This course assists students in compiling a professional portfolio (resumes, application letters, work samples, etc.), which can be used to obtain employment and qualify for promotions; Additional job-seeking strategies will be covered, including Internet use to explore employment resources, professional networking, interviewing techniques, and goal setting. May be repeated once for credit. Transfer credit: CSU.

CAOT 320 GRAPHIC DESIGN FOR COMPUTER USERS (1.5)
(Credit/No Credit or letter grade.)
A minimum of 24 lecture hours. Prerequisite: CAOT 212 or 214 or 220 or equivalent.

Students learn graphic design concepts that are essential for creating attractive and effective computer-generated documents such as newsletters, brochures, and flyers. Lecture class includes computer assignments completed outside of class. Transfer credit: CSU.
CAOT 400 INTERNET I (1.5)  
(Credit/No Credit or letter grade.)  
A minimum of 24 lecture hours plus 16 lab hours. Prerequisite: CAOT 104 or equivalent.  
An introduction to the Internet, including efficient searching techniques, e-mail features, file compression, file transfer protocol (FTP) software, discussion groups, and virus scanning programs. Course is designed for Internet beginners and those students preparing to take an online course. May be repeated once for credit. Transfer credit: CSU.

CAOT 403 HTML & WEB AUTHORING APPLICATIONS I (1.5)  
(Credit/No Credit or letter grade.)  
A minimum of 24 lecture hours plus 16 lab hours by arrangement. Prerequisite: Completion of, or concurrent enrollment in, either CAOT 104, CAOT 212 or CAOT 214, or equivalent.  
An introductory course using web authoring software and a hands-on approach to designing web pages that will consist of: text in various sizes and colors, hyperlinks, mailto forms, lists, background color/patterns, interlaced/transparent graphics, tables, and frames with the current version of HTML. Principles of color, line, and design for screen presentations will be included. May be repeated for credit. Transfer credit: CSU.

CAOT 404 HTML & WEB AUTHORING APPLICATIONS II (1.5)  
(Credit/No Credit or letter grade.)  
A minimum of 24 lecture hours plus 16 lab hours by arrangement. Prerequisite: CAOT 403 or equivalent.  
An intermediate hands-on course to increase proficiency with web authoring software while using the most current version of HTML. Consideration of the most recent specifications for use of text, graphics, tables, frames, layout, positioning, media and interaction. Introduction to advanced features of HTML. Attention to website design, development, maintenance, dynamic and universal interface. May be repeated for credit. Transfer credit: CSU.

CAOT 405 HTML & WEB AUTHORING APPLICATIONS III (1)  
(Credit/No Credit or letter grade.)  
A minimum of 16 lecture hours plus 8 lab hours by arrangement. Prerequisite: CAOT 404 or equivalent.  
An advanced course for students completing the Associate Degree program or certificate in Web Developer. In-depth examination of hypertext markup language focusing on Cascading Style Sheet integration. Basic syntax and techniques will be studied and applied. Complete coverage of CSS properties, values, and their relationship to HTML is included. May be repeated once for credit. Transfer credit: CSU.

CAOT 408 DIGITAL AUDIO AND VIDEO (2)  
(Credit/No Credit or letter grade.)  
A minimum of 32 lecture hours plus 24 lab hours by arrangement. Prerequisite: CAOT 104 or equivalent. Recommended: CAOT 400 or equivalent.  
Students learn how to create and prepare digital audio and video for web page inclusion using the most current technologies, including ColdFusion and Premiere. Areas of focus include digital media concepts, conversion methods from analog to digital, editing and manipulation techniques, and introduction to various web media formats, such as RealMedia, Windows Media and Quick Time. May be repeated once for credit. Transfer credit: CSU.

CAOT 409 DIGITAL MEDIA CONCEPTS (2)  
(Credit/No Credit or letter grade.)  
A minimum of 24 lecture hours plus 16 lab hours by arrangement. Prerequisites: CAOT 404 and CAOT 411.  
A survey course exploring the use of technology for web page inclusion using the most current techniques for creating graphics for use on the web. Areas of focus include the Flash interface, drawing tools, grouping, creating graphic symbols, keyframes, frame-by-frame animation, layers, tweening, and buttons. By the completion of the course students will publish a basic Flash movie that includes ActionScript buttons. May be repeated once for credit. Transfer credit: CSU.

CAOT 411 PHOTOSHOP FOR THE WEB (1)  
(Credit/No Credit or letter grade.)  
A minimum of 16 lecture hours plus 8 lab hours by arrangement. Prerequisites: CAOT 403 and CAOT 410, or equivalent.  
This course provides a practical, hands-on approach to intermediate techniques for creating graphics for use on the web. Topics include background images, image maps, rollovors, actions, filters, masks, and channels. This course will continue to explore the use of various graphic tools using graphics application software for image production and manipulation. May be repeated once for credit. Transfer credit: CSU.

CAOT 412 FLASH I (1.5)  
(Credit/No Credit or letter grade.)  
A minimum of 24 lecture hours plus 16 lab hours by arrangement. Prerequisite: CAOT 403 or equivalent.  
In this course students will learn to create and publish Flash animation for the web. Areas of focus include the Flash interface, drawing tools, grouping, creating graphic symbols, keyframes, frame-by-frame animation, layers, tweening, and buttons. By the completion of the course students will create a complex Flash movie for the web. May be repeated once for credit. Transfer credit: CSU.

CAOT 413 FLASH II (1.5)  
(Credit/No Credit or letter grade.)  
A minimum of 24 lecture hours plus 16 lab hours by arrangement. Prerequisite: CAOT 412 or equivalent.  
In this course students will go beyond the basics and learn more advanced features of Flash. Features covered include masking, movie clips, multiple timelines, sound control, pull down menus, preloads, and ActionScript. At the completion of the course students will create a complex Flash movie for the web. May be repeated once for credit. Transfer credit: CSU.

CAOT 415 WEBSITE DESIGN AND MANAGEMENT (2)  
(Credit/No Credit or letter grade.)  
A minimum of 32 lecture hours plus 16 lab hours by arrangement. Prerequisites: CAOT 404 and CAOT 411.  
Students examine color, layout, typography, and interactivity to understand how best to present information in several media. Consideration of user interface in setting up website plans, directory structures and website management to achieve maximum efficiency and accessibility is the focus of this culminating
course. **Note:** This is the final course in the basic Web Developer program and should be taken at the end of the core sequence. May be repeated once for credit. Transfer credit: CSU.

**CAOT 420 JAVASCRIPT (1.5)**  
(Credit/No Credit or letter grade.)  
A minimum of 24 lecture hours plus 16 lab hours by arrangement. Prerequisite: CAOT 404 or equivalent.

In-depth examination of the most commonly used web scripting languages and scripting protocols. Scripting elements, procedures and techniques will be studied and applied with the abilities of the non-programmer in mind. Refer to class schedule for specific languages and protocols covered. **Transfer credit:** CSU.

**CAOT 421 XML (1.5)**  
(Credit/No Credit or letter grade.)  
A minimum of 24 lecture hours plus 16 lab hours by arrangement. Prerequisite: CAOT 420 or equivalent.

In-depth examination of Extensible Markup Language (XML). Complete coverage of DTD’s, namespaces, schemas, Cascading Style Sheets, XSLT, and programming with the XML DOM. May be repeated once for credit. **Transfer credit:** CSU.

**CAOT 422 CGI/PERL (1.5)**  
(Credit/No Credit or letter grade.)  
A minimum of 24 lecture hours plus 16 lab hours by arrangement. Prerequisite: CAOT 421 or equivalent.

Using the Perl programming language, develop and deploy web applications such as customer surveys and forms using CGI scripts. Students will enter the realm of server-side scripting with easy to handle hands-on exercises and case projects. This course moves the student still creating flat webpages to the next step of dynamic web development. May be repeated once for credit. **Transfer credit:** CSU.

**CAOT 425 WEB DESIGN PRINCIPLES (1.5)**  
(Credit/No Credit or letter grade.)  
A minimum of 24 lecture hours plus 24 lab hours by arrangement. Prerequisites: CAOT 404 or equivalent and CAOT 411 or equivalent.

This web design course focuses on organizing information and analyzing and critiquing published sites by applying organizational concepts of chunking, hierarchy, relations and functions. Students will learn to identify visual logic in web page design such as visual hierarchy, contrasting, balance, consistency, web page dimensions, length, and design grids. May be repeated once for credit. **Transfer credit:** CSU.

**CAOT 427 COLLABORATION AND WEB PRODUCTION I (1.5)**  
A minimum of 8 lecture hours plus 48 lab hours. Prerequisite: CAOT 415 or equivalent.

Examination and evaluation of collaborative techniques in the production of web sites. Working in teams, students will apply collaboration theories and skills in a class-length development project. Students will consider a wide range of issues including project objectives, interpersonal skills, skills evaluation, budgets, and more. **Transfer credit:** CSU.

**CAOT 430 PHP/MySQL I (1)**  
(Credit/No Credit or letter grade.)  
A minimum of 16 lecture hours plus 8 lab hours by arrangement. Prerequisite: CAOT 404 or equivalent. Recommended: CAOT 230 or equivalent.

Students will utilize PHP with the MySQL database to create data-driven websites. In this course students learn to prepare and package client data for writing to the database. Topics include form layout techniques, data validation, and web security issues. May be repeated once for credit. **Transfer credit:** CSU.

**CAOT 431 PHP/MySQL II (1)**  
(Credit/No Credit or letter grade.)  
A minimum of 16 lecture hours plus 8 lab hours by arrangement. Prerequisite: CAOT 430 or equivalent.

Students will utilize PHP with the MySQL database to create data-driven websites. Move to accessing information from a database developing user-centered websites. Topics include static webpage element layout techniques, dynamic data insertion, and master/detail page development. **Transfer credit:** CSU.

**CAOT 432 PHP/MySQL III (1)**  
(Credit/No Credit or letter grade.)  
A minimum of 16 lecture hours plus 8 lab hours by arrangement. Prerequisite: CAOT 431 or equivalent.

Students will utilize PHP with the MySQL database to create data-driven websites. Enables users to update database information via web interfaces. This course completes the circle of web database development. Topics include form/database integration, data update techniques, and advanced web database techniques. **Transfer credit:** CSU.

**CAOT 480 NETWORK FUNDAMENTALS (LAN) (3)**  
Three class hours plus one hour by arrangement per week.
Cisco Academy Course – CCNA 1

An introductory course in networking specific to local area networks (LAN). Topics will include LAN hardware, software, topology, transmission medium, wide area network connectivity, diagnostic tools, system administration, and vendor specific LAN products. Class is complemented with hands-on experience in constructing a local area network. Course is patterned after Cisco training guidelines. **Also listed as** TCOM 480. **Transfer credit:** CSU.

**CAOT 490 TECHNICAL OVERVIEW OF THE INTERNET (3)**  
Three class hours and one hour by arrangement per week.

A technical overview of the Internet. This course is intended for students who want to learn about the Internet system architecture, language and vocabulary. Some lectures will be demonstrated on the Internet. Homework assignments may require the student having access on the Internet. **Also listed as** TCOM 490. **Transfer credit:** CSU.
CAOT 665 SELECTED COMPUTER TOPICS
(.5 or 1 or 1.5 or 2)
(Credit/No Credit)
A minimum of 8 lecture hours plus a minimum of 4 lab hours by arrangement for each .5 unit.

Short course used to introduce, develop or review computer topics or applications. The course will focus on a specific topic: the introduction of basic computer skills, introduction of applications packages, upgrades of software packages, or a particular segment of a semester-length course. May be repeated for credit. Transfer credit: CSU.

COMPUTER SCIENCE
See also listings under Computer Applications & Office Technology and Telecommunications & Network Information Technology.

COMP 118 INTRODUCTION TO OBJECT-ORIENTED PROGRAM DESIGN (4)
(Credit/No Credit or letter grade.)
Three lecture hours and three lab hours per week. Recommended: Completion of MATH 110 with a grade of C or better, or equivalent; and eligibility for ENGL 836 or equivalent.

Introduction to computing systems concepts necessary for program coding, compilation and execution; problem-solving techniques; object-oriented analysis and design; program coding, testing and documentation. Students will use the Java language to explore algorithm development, data types, flow of control, classes, objects, methods, vectors, and event-driven programming. Transfer credit: UC; CSU.

COMP 155 COMPUTER PROGRAMMING VISUAL BASIC (3)
(Credit/No Credit or letter grade.)
Three lecture hours and one and one-half lab hours per week. Prerequisite: MATH 110 or equivalent. Recommended: Eligibility for ENGL 836.

An introduction to computer programming using the high level language VISUAL BASIC. Emphasis is on structured programming techniques and general problem solving skills in both numerical and non-numerical applications. Students will be able to formulate, represent, and solve problems using the computer. Students will run programs on IBM PC's using the college's microcomputer laboratory. Transfer credit: UC; CSU.

COMP 156 INTERMEDIATE PROGRAMMING IN VISUAL BASIC (3)
(Credit/No Credit or letter grade.)
Three lecture hours and one and one-half lab hours per week. Prerequisite: COMP 155 or equivalent.

An intermediate course in computer programming using the high level language VISUAL BASIC. Emphasis is on user friendly interfaces, structural programming techniques, and general problem solving skills in both numerical and non-numerical applications. Students will be able to formulate, represent and solve problems using the computer. Transfer credit: UC; CSU.

COMP 190 INTRODUCTION TO C PROGRAMMING (3)
(Credit/No Credit or letter grade.)
Three lecture hours and one and one-half lab hours per week. Prerequisite: MATH 110 or equivalent. Recommended: MATH 120 or equivalent; and eligibility for ENGL 836.

This course provides an introduction to computer science using the C programming language. Students will gain an understanding of the fundamentals of the C language and will examine and use basic algorithms for problem solving. Programming design and problem solving on a computer will be implemented through use of the C language. This course is recommended for students who plan to transfer and major in computer science and those interested in learning the C programming language. Transfer credit: UC; CSU.

COMP 250 PROGRAMMING METHODS I: C++ (3)
(Credit/No Credit or letter grade.)
Three lecture hours and three lab hours by arrangement per week. Prerequisite: COMP 118 with a grade of C or better or equivalent academic or professional programming experience, and MATH 120 with a grade of C or Credit or better, or equivalent. Recommended: Eligibility for ENGL 836 or equivalent.

Introduction to software engineering using the C++ programming language for CS majors and computer professionals. Includes language fundamentals, classes, control structures, functions/libraries, templates, recursion, sorting, searching, pointers, strings, vectors, and class construction. Transfer credit: UC; CSU.

COMP 252 PROGRAMMING METHODS II: C++ (3)
(Credit/No Credit or letter grade.)
Three lecture hours and three lab hours by arrangement per week. Prerequisite: COMP 250 with a grade of C or Credit or better, or one full year of C professional programming experience, or equivalent.

Continuation of Programming Methods I: C++ for Computer Science majors and computer professionals. Topics include advanced class design (inheritance and polymorphism), data abstraction, templates, container classes, pointers and dynamic memory allocation, linked lists, stacks, queues, trees, recursion, graphs, and sorting/searching algorithms. Emphasizes object-oriented features of C++. Transfer credit: UC; CSU.

COMP 284 PROGRAMMING METHODS I: JAVA (3)
(Credit/No Credit or letter grade.)
Three lecture hours and three lab hours by arrangement per week. Prerequisites: COMP 118 and MATH 120 with a grade of C or Credit or better, or equivalent. Recommended: Eligibility for ENGL 836 or equivalent.

Introduction to computer science and web-based programming using the object-oriented Java language for Computer Science majors and computer professionals. Includes Java language fundamentals, classes, control structures, methods, libraries/API packages, recursion, arrays, strings, vectors, searching, sorting, and exception handling. Transfer credit: UC; CSU.
COMP 286 PROGRAMMING METHODS II: JAVA (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours and three lab hours by arrangement per week. Prerequisite: COMP 284 with a grade of C or Credit or better, or equivalent.  
Advanced data structures and programming techniques for Computer Science majors and computer professionals. Object-oriented approach to a variety of data structures, including vectors, stacks, queues, linked lists, trees, bags, sets, and graphs. Includes recursion, sorting and searching topics, such as Big O notation and hash tables. Transfer credit: UC; CSU.

COMP 355 INTRODUCTION TO ORACLE – SQL (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours per week and three lab hours per week by arrangement. Prerequisite: Completion of MATH 110 with a grade of C or Credit or better, or equivalent. Recommended: Eligibility for ENGL 836 and READ 836, or ENGL/READ 846, or equivalent.  
An extensive introduction to data server technology. The course covers the concepts of both relational and object relational databases and the powerful SQL programming language. Students learn to create and maintain database objects and to store, retrieve and manipulate data. Students will learn to write SQL and SQL*Plus script files using the iSQL*Plus tool to generate report-like output. Demonstrations and hands-on practice reinforce the fundamental concepts. This course is the first level of certification for the Oracle Certified Professional track. Transfer credit: UC; CSU.

COMP 356 FUNDAMENTALS OF DATABASE ADMINISTRATION I (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours per week and three lab hours per week by arrangement. Prerequisite: COMP 355 with a grade of C or Credit or better, or equivalent.  
Utilizing SQL, this course is designed to give students a firm foundation in basic database tasks. Students will learn to design, create and maintain the latest Oracle database. Successful completion of COMP 355 and COMP 356 constitutes an Oracle Certified Associate program. Transfer credit: CSU.

COMP 357 FUNDAMENTALS OF DATABASE ADMINISTRATION II (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours per week and three lab hours per week by arrangement. Prerequisite: COMP 356 with a grade of C or Credit or better, or equivalent.  
Advanced concepts to maintain an Oracle database, including planning and implementing backup and recovery strategies, trends and problems associated with business networking, and the architecture of the Oracle client/server network. Transfer credit: CSU.

COMP 378 PROGRAMMING IN PERL (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours per week and three lab hours per week by arrangement. Recommended: Completion of COMP 118, COMP 250 or COMP 284 with a grade of C or Credit or better, or equivalent.  
Programming in the Windows and UNIX environment using PERL to create utility programs. Included is the design, creation, debugging and execution of programs written in the PERL programming language. Transfer: CSU.

COMP 665 SELECTED TOPICS IN COMPUTER SCIENCE (.5-2)  
(Credit/No Credit or letter grade.)  
A minimum of eight lecture hours per one-half unit. Recommended: MATH 120 with a grade of C or better, or equivalent; and eligibility for ENGL 836 or equivalent.  
Exploration of selected contemporary topics or themes in Computer Science. Sample topics include new programming languages, operating systems, net-centric computing, problem-solving and program design methodologies, software engineering processes, graphical user interface design, information management, and contemporary issues in Computer Science. May be repeated for credit. Transfer credit: UC; CSU.

COOPERATIVE EDUCATION

COOP 670 VOCATIONAL COOPERATIVE EDUCATION (1-4)  
(Credit/No Credit.) (VA Institutional Rates.)  
Variable work station hours. Prerequisite: Permission of the Cooperative Education Office, concurrent enrollment in a planned vocational program, and employment in a college approved job directly related to the student’s academic major  
Students may receive credit for work experience related to their major field or to their established career goal. Seminars and individual conferences are scheduled at convenient times during the semester for the instructor and the student to establish learning objectives related to the student’s employment. Students are given appropriate assignments related to the stated objectives and graded in accordance with the college’s established grading system. As an alternative, related instruction classes meeting one hour per week, usually in the evening, are available for those students who prefer or need a more structured learning process. Students must be enrolled in a minimum of seven units (including the Cooperative Education course) to earn Cooperative Education credit. One unit of credit for each 75 hours worked per semester, with a maximum of four units per semester, may be earned by students with jobs related to their academic or occupational majors or goals. A maximum of 16 units of college credit may be earned in parallel Cooperative Education. Transfer credit: UC; CSU.
COOP 671 GENERAL COOPERATIVE EDUCATION (1-3)
(Credit/No Credit.)
Variable work station hours.

Designed for the student who does not have a job that relates to a specific occupational goal or college major. Under the direction of the college coordinator, students focus on career awareness and development of desirable employment habits and attitudes. Each student must establish measurable learning objectives appropriate for his/her job. Students may be eligible for up to three units of credit per semester and the course may be repeated for a maximum of six units of credit. One unit of credit may be earned for each 75 hours of paid work (approximately five hours per week) or 60 hours of volunteer work per semester. Students must be enrolled in a minimum of seven units (including the Cooperative Education course) to earn Cooperative Education credit. Transfer credit: CSU.

COSMETOLOGY

COSM 700 COSMETOLOGY CONCEPTS AND PRACTICE I (.5-10)
Five lecture hours and 35 lab hours per week for eight weeks for day students and five lecture hours and 19 lab hours per week for sixteen weeks for evening students.

Basic manipulative skills in hair design, permanent waving, hair coloring, hair cutting, and manicuring/pedicuring.

COSM 710 COSMETOLOGY CONCEPTS AND PRACTICE II (.5-8)
Five lecture hours and 35 lab hours per week for eight weeks. Prerequisite: Completion of COSM 700 with a grade of C or better.

Basic manipulative skills in facials, arching/waxing, and make-up.

COSM 720 COSMETOLOGY CONCEPTS AND PRACTICE III (.5-10)
Five lecture hours and 35 lab hours per week for eight weeks for day students and five lecture hours and 19 lab hours per week for sixteen weeks for evening students. Prerequisite: Completion of COSM 700 with a grade of C or better.

Basic manipulative skills in chemical straightening, hair analysis, hair lightening, conditioners and advanced hair coloring and styling techniques, and advanced permanent waving.

COSM 730 COSMETOLOGY CONCEPTS AND PRACTICE IV (.5-8)
Five lecture hours and 35 lab hours per week for eight weeks. Prerequisite: Completion of COSM 700 with a grade of C or better.

Develop manipulative skills in nail wraps, tips and sculptured nails. Introduce and develop manipulative skills in thermal pressing and curling, fingering and scientific scalp treatments.

COSM 740 COSMETOLOGY CONCEPTS AND PRACTICE V (.5-10)
Five lecture hours and 35 lab hours per week for eight weeks for day students and five lecture hours and 19 lab hours per week for sixteen weeks for evening students. Prerequisite: Completion of COSM 700, 710, 720, and 730 with a grade of C or better.

California State Board review. Advanced salon preparation. Emphasizes salon environment in relationship to skill and techniques. May be repeated for credit.

COSM 750 COSMETOLOGY BRUSH-UP (1-19)
Nine lecture hours and thirty-one lab hours per week. Lab and theory hours by arrangement. Prerequisite: Cosmetology license.

To satisfy supplemental or out-of-state training requirements. Basic and advanced instruction in beauty salon processes with emphasis on performance and efficiency. May be repeated for credit. (Open entry.)

COSM 754 MANICURING (1-10)
Lecture/Lab total of 400 hours.

The art of caring for the hands and nails. Includes instruction in sculpture nails, application of nail tips and nail art. Four hundred hours training in preparation for licensure by the California State Board of Cosmetology in the field of manicuring.

COSM 760 COSMETOLOGY INSTRUCTOR PREPARATION (1-19)
Up to nine lecture hours and 31 lab hours per week. Prerequisite: Valid California Cosmetologist’s license and a minimum of one year's full-time practical experience.

Designed to develop instructional skills and techniques in the cosmetology field. Upon completion of this course, an applicant is eligible to take the teachers examination of the State Board of Cosmetology.

COSM 775 ESTHETICIAN (1-8)
Twenty class hours per week (5 lecture, 15 lab.)

Designed to develop skills and knowledge in skin care. Upon successful completion of the 600 hour course the student will be eligible to apply for Esthetician examination at the California State Board of Cosmetology. May be repeated for credit.

COSM 782 ADVANCED COSMETOLOGY CONCEPTS (2)
(1-19)
Up to nine lecture hours and thirty-one lab hours per week. Lab and theory hours by arrangement. Prerequisite: Valid California Cosmetology license or actively enrolled in Skyline Cosmetology program.

Emphasis is placed on advanced methods, techniques and application of hair fashion, design and coordination. May be repeated for credit.

COSM 784 SALON PRACTICE (.5-1.5)
Forty-eight lab hours per unit. Prerequisite: Must be currently enrolled in Cosmetology 710, 720, 730 or 740.

Offers additional salon practice to all students enrolled in the current day program. May be repeated for credit.

COSM 785 SPA TECHNICIAN TRAINING (1-5)
(Credit/No Credit or letter grade.)
Six lecture hours and six lab hours per week.

Thorough study of wellness services available in day and destination spa businesses. Focus is on health, fitness, and stress management. Students will develop skill in spa treatments, product knowledge, customer relations, business operations, and the job search.
DATA PROCESSING
See listings under Computer Applications & Office Technology and Computer Science.

DEVELOPMENTAL SKILLS

DSKL 810 DEVELOPMENTAL LEARNING SKILLS LAB (1)  
(Credit/No Credit.)
Individual and group skill activities designed for students with specific learning problems in the following areas: basic skills; memory/organization/concentration skills; perceptual skills; language skills; conceptual skills. May be repeated up to a total of 4 units. (Open entry.) (Units do not count toward the Associate Degree.)

DSKL 811 DIFFERENTIAL LEARNING SKILLS ASSESSMENT (.5)  
(Credit/No Credit.)
A total of eight lecture hours: four scheduled class hours and four hours by individual appointment.
Students complete an assessment to determine their specific learning profile as well as academic skill levels in reading, math and written language. Based upon assessment, an individualized learning strategies plan will be developed for each student. May be repeated once for credit. (Units do not count toward the Associate Degree.)

DSKL 812 PRE-VOCATIONAL SKILLS (2)  
(Credit/No Credit.)
Students develop skills that facilitate decision making, vocational choice and life adjustment. (Units do not count toward the Associate Degree.)

DSKL 813 DEVELOPMENTAL READING AND THINKING SKILLS (1-3)  
(Credit/No Credit.)
Small group classroom instruction designed to assist students in the development/improvement of reading and thinking skills. May be repeated up to a total of 9 units. (Open entry.) (Units do not count toward the Associate Degree.)

DSKL 814 DEVELOPMENTAL WRITING SKILLS (1-3)  
(Credit/No Credit.)
Small group, classroom and individualized activities designed to assist students with the development/improvement of writing skills. May be repeated up to a total of 9 units. (Open entry.) (Units do not count toward the Associate Degree.)

DSKL 815 DEVELOPMENTAL SPELLING SKILLS (.5-2)  
(Credit/No Credit.)
Small group and self-paced lab activities to assist students with improvement of spelling skills. May be repeated for a maximum of 4 units. (Open entry.) (Units do not count toward the Associate Degree.)

DSKL 817 ASSISTIVE COMPUTER ACCESS (.5-3)  
(Credit/No Credit.)
Twenty-four lab hours per .5 unit.
Designed primarily for students with disabilities, this course provides training in the use of computer access technologies that enhance a student’s ability to access and use microcomputers. Students will use the technology as a tool to complete assignments from concurrent subject area courses. No previous computer experience is required. May be repeated three times for credit. (Open entry.) (Units do not count toward the Associate Degree.)

DSKL 818 SKILL DEVELOPMENT ON COMPUTERS (1-2)  
(Credit/No Credit.)
Two lab hours plus one hour per week by arrangement. Prerequisite: Completion of or concurrent enrollment in DSKL 811.
Small group instruction on computers for students with identified learning disabilities. This is an introductory course that includes keyboarding, Internet use, computer library research, word processing, spreadsheets, graphics, and database on ClarisWorks. May be repeated once for credit. (Units do not count toward the Associate Degree.)

EARLY CHILDHOOD EDUCATION

ECE. 201 CHILD DEVELOPMENT (3)  
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
In-depth exploration of areas and issues of major importance in the field of child development. Focuses on personality, intellectual, social, and physical factors. Theoretical concepts, practical application, and current research are covered. Also listed as PSYC 201. Transfer credit: UC; CSU (D3).

ECE. 210 EARLY CHILDHOOD EDUCATION PRINCIPLES (3)  
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Overview of the history, nature, and goals of Early Childhood Education. Exploration of various program models in ECE, current issues, and long-range trends. Qualifications and training required for teachers of young children. Transfer credit: CSU.

ECE. 211 EARLY CHILDHOOD EDUCATION CURRICULUM (1-3)  
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Selection and management of activities for young children that provide quality learning experiences. Appreciation of the value of children's play. Development of appropriate curriculum evaluation methods. Transfer credit: CSU
ECE. 212 CHILD, FAMILY, AND COMMUNITY (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

Patterns of family living in a democratic society and the role and interaction of members; varying factors affecting family life: racial, cultural, economic, social, urban and suburban; home-nursery relationships; community resources: health, welfare, education, counseling, guidance, and recreation. Designed with a crosscultural approach to the child, family and community. Also listed as FCS 212. Transfer credit: UC; CSU.

ECE. 214 CHILD-PARENT RELATIONS (3)
Three lecture hours per week.

Emotional, social, intellectual and physical development of children with an emphasis on a multicultural approach to parent-child relations, diversity of family systems in today’s society, and how these influence the developing child. Also listed as FCS 213. Transfer credit: CSU (E1).

ECE. 240 EARLY CHILDHOOD EDUCATION ADMINISTRATION: BUSINESS/LEGAL (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836 and READ 836 or ENGL/READ 846 or equivalent, plus the 12 ECE core units.

An overview of the business aspects of caring for children in early childhood settings and its social, political and economic implications. Included are the legal and regulatory requirements for early childhood settings, laws relating to child care, and facets of business and fiscal management. This course is open to all students but is specifically designed for those needing to meet state licensing requirements for ECE Program Directors. Transfer credit: CSU.

ECE. 241 EARLY CHILDHOOD EDUCATION ADMINISTRATION: HUMAN RELATIONS (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836 and READ 836 or ENGL/READ 846 or equivalent, plus the 12 ECE core units.

Focus on the human relations components of operating an early childhood setting and the social, political and economic implications for ECE professionals and parents. Other topics include staffing, supervision, licenses and/or credentials for staff, assessment and evaluation, state and federal regulations governing employment, issues in ECE, and parent involvement. This course is open to all students but is specifically designed for those needing to meet state licensing requirements for ECE Program Directors. Transfer credit: CSU.

ECE. 242 ADULT SUPERVISION IN ECE/CD CLASSROOMS (2)
(Credit/No Credit or letter grade.)
A minimum of 32 lecture hours. Recommended: Eligibility for ENGL 836 and READ 836 or ENGL/READ 846 or equivalent.

A study of the methods and principles of supervising student teachers, assistant teachers, parents, and volunteers in ECE education settings. Emphasis is on the role of classroom teachers who function as mentors to new teachers while simultaneously addressing the needs of children, parents, and other staff. Although this course is open to all students, it is specifically designed for those needing to meet state licensing requirements for ECE Masters Teachers, Site Directors, and Program Directors. Transfer credit: CSU.

ECE. 260 CHILDREN WITH SPECIAL NEEDS (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836 and READ 836, or ENGL/READ 846, or equivalent.

An overview of the issues related to children with special needs. Special needs refer to physical, sensory, communicative and behavioral disabilities. Additional topics include a historical perspective, current laws and legislation, inclusion practices in early childhood education settings, and appropriate community resources. Transfer credit: CSU.

ECE. 262 INTRODUCTION TO FAMILY SUPPORT: BUILDING RESPECTFUL PARTNERSHIPS (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836 and READ 836, or ENGL/READ 846, or equivalent.

An overview of family support programs within early childhood education. Included will be a historical perspective, family support principles and effective communication guides between families, child care providers, teachers and community agencies. This course is one of two (with ECE. 264) for a specialization for Master Teacher on the Child Development Permit matrix. Transfer credit: CSU.

ECE. 264 THE LIFE CYCLE OF THE FAMILY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836 and READ 836, or ENGL/READ 846, or equivalent.

An overview of the life cycle of the family. The course bridges individual and family development with cultural and social perspectives. Emphasis is on the diversity within contemporary families and the establishment of family support programs. This course is one of two (with ECE. 262) for a specialization for Master Teacher on the Child Development Permit matrix. Transfer credit: CSU.

ECE. 270 INTRODUCTION TO INFANT/TODDLER CHILD CARE (3)
Three lecture hours per week.

This course will focus on caring for infants and toddlers in group child care settings. Topics will include: social-emotional growth and development, routines and environments, language development, physical development, cognitive development, and caring for infants and toddlers in the context of family and culture. Transfer credit: CSU.
ECE. 272 CULTURAL DIVERSITY IN EARLY CHILDHOOD EDUCATION (3)
Three lecture hours per week.
In-depth exploration of cultural diversity in early childhood settings. Focus on developing skills needed to provide culturally sensitive care to young children from a variety of family backgrounds. Topics will include cultural diversity, gender differences, disability, gay and lesbian families, bilingualism. Transfer credit: CSU.

ECE. 275 CHILDREN’S LANGUAGE AND LITERACY DEVELOPMENT (3)
Three lecture hours per week.
This course explores the influences of children’s literature in language acquisition, emotional development, and literacy learning. Analysis of the teacher’s role in promoting creativity and self expression through verbal and symbolic language. Transfer credit: CSU.

ECE. 311 CHILDREN’S NUTRITION (1)
A total of 16 lecture hours. Recommended: Eligibility for ENGL 836.
This course is designed to assist the parents of young children to develop an understanding of how nutrition contributes to mental and physical growth. The student will learn ways to teach these principles to young children. Simple food preparation techniques and an examination of current literature. Also listed as FCS 311. Transfer credit: CSU.

ECE. 366 PRACTICUM IN EARLY CHILDHOOD EDUCATION (3)
One lecture hour and six lab hours per week. Prerequisite: ECE. 201, ECE. 210, ECE. 211 and ECE. 212. Recommended: Eligibility for ENGL 836 and READ 836, or ENGL/READ 846, or equivalent.
A supervised field experience course focusing on the methods and principles of teaching in early childhood settings. Emphasis is on the role of the teacher in a developmentally appropriate setting. This course allows students to gain practical, verifiable experience working with young children under the supervision of an experienced teacher. Students will be placed in approved ECE sites. Transfer credit: CSU.

ECE. 665 SELECTED TOPICS IN EARLY CHILDHOOD EDUCATION (.5 or 1 or 1.5 or 2)
(Credit/No Credit or letter grade.)
Eight lecture hours per .5 unit.
This course is designed to develop specific skills that are utilized in Early Childhood Education environments. The course will focus on one specific topic; for example, multicultural curriculum, techniques to foster sense of community, selecting a preschool, handling behavior problems, working with parents, etc. Transfer credit: CSU.

EARTH SCIENCES
Course descriptions for earth science courses may be found elsewhere in this Catalog under the appropriate discipline.
Courses offered by the College include: Geology 100, 105, 115, 120, 180, 210, 220, 611, 612, and Oceanography 100, 101, 108.

ECONOMICS
ECON 100 PRINCIPLES OF MACROECONOMICS (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836 and MATH 110.
Analysis of the economic system and its problems. Theory of the determination of the level of output; the behavior of prices; monetary theory and institutions; government stabilization policies; economic growth. Transfer credit: UC; CSU (D3). (CAN ECON 2).

ECON 102 PRINCIPLES OF MICROECONOMICS (3)
Three lecture hours per week. Prerequisite: ECON 100. Recommended: Eligibility for ENGL 836 and MATH 110.
Analysis of the economic system and its problems. The functioning of the market and the pricing of products under competitive and non-competitive conditions; wages and labor unions; international trade; comparison of economic systems. Transfer credit: UC; CSU (D3). (CAN ECON 4).

EDUCATION
EDUC 100 INTRODUCTION TO EDUCATION (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Survey of the American education system including review of the development of schools, assessment of issues facing schools, the profession, and society, and an opportunity for students to decide the career potential of education. Transfer credit: CSU (D3).

ELECTRONICS TECHNOLOGY
ELEC 110 FUNDAMENTALS OF ELECTRONICS (3)
Two lecture hours and three lab hours per week plus one hour by arrangement per week.
Activity based introduction to the fundamentals of DC and AC electrical/electronic circuits. Course covers the basic mathematical laws, terminologies, testing and measuring of simple circuits. Laboratory exercises will emphasize the use of tools, electrical test instruments and measuring devices. Transfer credit: CSU.
EMERGENCY MEDICAL CARE

EMC. 410 EMERGENCY MEDICAL TECHNICIAN I (7)
136 classroom instruction hours, 8 hours hospital rotation in a local emergency department, and a minimum of 12 hours riding with a local ambulance company per semester. Prerequisite: A Cardiopulmonary Resuscitation (CPR) Card is required to continue in the course.

This course represents the first phase of training in the Emergency Medical Technician career structure. The course covers all techniques of emergency medical care presently considered within the responsibilities of the Emergency Medical Technician, as well as all operational aspects of the job which the EMT-1 will be expected to perform. Meets state and national certification requirements for Emergency Medical Technician I.

EMC. 415 EMERGENCY MEDICAL TECHNICIAN I - REFRESHER (1.5-2)
Prerequisite: California EMT I certificate that is current or has not been expired for more than four years.

A three or four day course that provides EMT’s with the opportunity to renew their EMT I certificate. The three-day course provides 24 hours of Continuing Education Units. The four-day course provides the necessary written and skills testing. May be repeated for credit.

EMC. 425 CPR: HEALTH CARE PROVIDER (.5)
(Credit/No Credit.)
Total of eight lecture hours.

This course will qualify students for CPR certification for health care providers. Includes instruction pertinent to adult, child and infant CPR. Transfer credit: CSU.

EMC. 665 SELECTED TOPICS IN EMERGENCY MEDICAL CARE (.5 or 1 or 1.5 or 2)
Eight lecture hours per .5 unit.

This course is designed to review and update specific topics fundamental to the practice of an Emergency Medical Technician or paramedic. Some of these topics may be taken for continuing education units. May be repeated for credit.

ENGLISH

Reading courses are listed under READING. Literature courses are listed under LITERATURE. Courses for non-native speakers of English are listed under ENGLISH FOR SPEAKERS OF OTHER LANGUAGES.

Students are encouraged to take the English/Reading placement tests prior to initial placement in courses. English/Reading placement tests are given to students to assist the counselor and the division in guiding them to the appropriate English course. Proper placement in English/Reading assures that students will begin their college studies in courses where they will have the best chance of success. Initial placement in classes is recommended on the basis of test scores. The tests are given on announced dates throughout the year. Students who transfer to Skyline College and have taken a college English course equivalent to ENGL 100 Composition or ENGL 836 Writing Development at another institution need not take the test.

English faculty may, when appropriate, modify placement recommendations on the basis of the student's writing performance.

Students should enroll in the course(s) recommended by their placement scores.

Course numbering has changed for several English Composition and Reading courses. If you took courses that satisfy a prerequisite to an English or Reading course under the old numbering system, it will satisfy that prerequisite even though the numbering has changed. The new and old numbers are listed below:

<table>
<thead>
<tr>
<th>OLD NUMBER</th>
<th>NEW NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 801</td>
<td>ENGL 826</td>
</tr>
<tr>
<td>ENGL 800</td>
<td>ENGL 836</td>
</tr>
<tr>
<td>READ 801</td>
<td>READ 826</td>
</tr>
<tr>
<td>READ 802</td>
<td>READ 836</td>
</tr>
</tbody>
</table>

The English/Reading sequences from the lowest to the highest level are listed below:

<table>
<thead>
<tr>
<th>English Courses</th>
<th>Reading Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 826</td>
<td>READ 826</td>
</tr>
<tr>
<td>ENGL 836 or</td>
<td>ENGL 846 or ENGL 400 READ 836 or READ 846</td>
</tr>
<tr>
<td>ENGL 100 or ENGL 105</td>
<td>READ 420</td>
</tr>
<tr>
<td>ENGL 110 or ENGL 165</td>
<td></td>
</tr>
</tbody>
</table>

ENGL 100 COMPOSITION (3)
Three lecture hours and one lab hour by arrangement per week. WRITING PREREQUISITE: ENGL 836 or 400 with a grade of C or better, or eligibility for ENGL 100 on approved college placement tests and other measures as necessary. READING PREREQUISITE: READ 836 with Credit or a grade of C or better, or ENGL 400 (taken at Skyline) with a grade of C or better, or eligibility for 400-level Reading courses on approved college Reading placement test, and other measures as necessary.

Designed to help the student recognize and critically evaluate important ideas in short and book length texts, express facts and thought logically and gracefully in clear and correct prose. Students will write expository prose dealing with a variety of ideas. Transfer credit: UC; CSU (A2, 3). (CAN ENGL 2).

ENGL 105 INTENSIVE COMPOSITION (4)
Five lecture hours and one lab hour by arrangement per week. WRITING PREREQUISITE: ENGL 836 or 400 with grade C or better, or eligibility for ENGL 100 on approved college placement tests and other measures as necessary. READING PREREQUISITE: READ 836 with Credit or a grade of C or better, or ENGL 400 (taken at Skyline) with a grade of C or better, or eligibility for 400-level Reading courses on approved college Reading placement test, and other measures as necessary.

Designed to help the student recognize and critically evaluate important ideas in short and book length texts, express facts and thought logically and gracefully in clear and correct prose. Extra class hours are devoted to specific reading and writing problems. Students will write expository prose dealing with a variety of ideas, with intensive instruction in the three major components of effective writing: sentence, paragraph, and essay. Course transfers as ENGL 100 to other institutions and is taken in lieu of ENGL 100 by students needing additional writing practice. Transfer credit: UC; CSU (A2, 3). (CAN ENGL 2).
ENGL 110 COMPOSITION, LITERATURE AND CRITICAL THINKING (3)
Three lecture hours and one lab hour by arrangement per week.
Prerequisite: ENGL 100 or 105 with a grade of C or better.
Course is designed to introduce students to the major imaginative genres of poetry, drama, and fiction. Students will write expository essays and other kinds of assignments employing methods of literary analysis and demonstrating skill in critical thinking. Transfer credit: UC; CSU (A2, A3, C2). (CAN ENGL 4).

ENGL 161, 162 CREATIVE WRITING I AND II (3, 3)
Three lecture hours and one lab hour by arrangement per week.
Prerequisite: ENGL 161: Eligibility for ENGL 836 or ENGL 400; ENGL 162: Completion of ENGL 161.
The craft of writing short stories, sketches, poetry, short dramas, and other literary forms for both personal enjoyment and professional training. During the Spring Semester, class members may volunteer to work on the college’s literary magazine. Transfer credit: ENGL 161 – UC; CSU (C2) (CAN ENGL 6); ENGL 162 – UC; CSU.

ENGL 165 CRITICAL THINKING AND ADVANCED COMPOSITION (3)
Three lecture hours and one lab hour by arrangement per week.
Prerequisite: ENGL 100 or ENGL 105 with grade of C or better.
This course will teach students to use critical thinking, reading, and writing skills through discussion of ideas and a progression of argumentative writing assignments more advanced than ENGL 100. Transfer credit: UC; CSU (A3).

ENGL 166 WOMEN ON WRITING (.5)
(Credit/No Credit or letter grade.)
A total of eight lecture hours.
Exploration of diverse women’s experience as portrayed in a variety of genres. Students will read, hear from and discuss women authors who write in such modes as the novel, short story, poetry, drama, film, news reporting and editorial comment, memoir, biography, and historical fiction. Course participants will examine and celebrate women’s voices in contemporary writing. May be repeated for a maximum of 3 units. Also listed as LIT 166. Transfer credit: UC; CSU.

ENGL 195 TERM PAPER (1-2)
Prerequisites: Prior training in using library resources or concurrent enrollment in LSCI 100; satisfactory completion or concurrent enrollment in ENGL 100 or 105.
The creation of a research paper based on library sources, from the choice of an appropriate topic through the compilation of a working bibliography and the taking of reading notes to writing the drafts and documenting. Transfer credit: CSU.

ENGL 400 ENGLISH COMPOSITION FOR NON-NATIVE SPEAKERS (5)
Five lecture hours and one lab hour by arrangement per week. Recommended: Completion of ESOL 840 or 841 and 842; or appropriate skill level as indicated by ESL placement test and other measures as necessary.

For advanced non-native speakers of English who have completed ESOL 840, or 841 and 842, or its equivalent but need more intensive work in critical reading and composition before attempting ENGL 100 or 105. Transfer credit: UC; CSU (A2).

ENGL 440 SCREENWRITING (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
This beginning film-writing course is designed to give students the necessary tools to write scripts and to analyze various narrative approaches. Participants will learn to criticize and to write synopses as well as master-screen scripts for classical Hollywood texts. Emphasis will be placed on learning formal structures rather than discussing individual thematic tastes. Transfer credit: CSU.

ENGL 650 ENGLISH SUPPLEMENT FOR STAARS STUDENTS (.5-3)
(Credit/No Credit.)
One and one-half to nine hours per week by arrangement.
Individual instruction in reading and writing skills for TRIO/STAARS students based on TRIO English instructor’s assessment of each student’s reading and writing skills. Students are assigned a personal tutor/mentor based in the Writing and Reading Lab in The Learning Center. May be repeated three times for credit. (Open entry) (Units do not count toward the Associate Degree.)

ENGL 826 BASIC WRITING SKILLS (3)
Five lecture hours and one lab hour by arrangement per week. Recommendation: Eligibility for READ 826 and ENGL 826 by appropriate scores on college placement tests and other measures as necessary. Corequisite: READ 826 if indicated by college Reading placement test.
A basic composition course focusing on the fundamentals of paragraph and essay writing, organization, sentence skills, reading, and text-based writing. Students will be assigned in-class and outside writing assignments and exercises, individual conferences, and tutoring. ENGL 826 prepares students for ENGL 836. (Units do not count toward the Associate Degree.)

ENGL 836 WRITING DEVELOPMENT (3)
Three lecture hours and one lab hour by arrangement per week.
WRITING PREREQUISITE: Completion of ENGL 826 or ESOL 840 or 841/842 with a grade of C or higher, or appropriate scores on approved college placement test and other measures as necessary. READING PREREQUISITE: READ 826 with Credit or a grade of C or higher, or eligibility for READ 836 on approved college Reading placement test, or other measures as necessary.
An introduction to college composition that prepares students to write essays at the college level, focusing on thesis construction, organization, development, sentence skills, reading, and text-based writing. Students will be assigned in-class and outside writing assignments and exercises, individual conferences, and tutoring. ENGL 836 prepares students for ENGL 100/105.
ENGL 846 READING AND WRITING CONNECTIONS (5)
Five lecture hours and one lab hour by arrangement per week.
WRITING PREREQUISITE: Completion of ENGL 826, ESOL 840 or ESOL 841/842 with a grade of C or better, or eligibility for ENGL 836, ENGL 400 or ENGL 846 on approved college placement test and multiple measures. READING PREREQUISITE: Completion of READ 826, ESOL 840 or ESOL 841/842 with Credit or a grade of C or better, or eligibility for READ 836, ENGL 400, or ENGL 846 on approved Reading Placement Test and multiple measures.

Emphasis on reading and writing as interrelated processes; introduces students to college-level reading and writing. Includes instruction in thesis construction, organization, development, sentence skills, text-based writing, and effective reading strategies to improve comprehension, analysis and vocabulary. Also listed as READ 846. ENGL 846 prepares students for ENGL100/105.

ENGL 853 WRITING ASSISTANCE LAB (.5-3)
(Credit/No Credit.)
One and one half to nine hours per week of computer lab instruction.
Provides assistance in all stages of the writing process for students enrolled in any college course. The lab allows students to drop in and to choose the instructional methods they prefer: one-on-one tutoring, writing software, English practice groups, faculty-taught workshops, and phone-in/online tutoring. (Open entry.) May be repeated for credit a maximum of three times. (Units do not count toward the Associate Degree.)

ENGL 860 VOCABULARY (1.5)
(Credit/No Credit or letter grade.)
A course focusing on techniques of general vocabulary development, root-words, and affixes. (Units do not count toward the Associate Degree.)

ENGL 870 SPELLING (1.5)
(Credit/No Credit or letter grade.)
A course focusing intensively on the principles of spelling and the application of techniques for improvement in spelling. (Units do not count toward the Associate Degree.)

ENGL 875 ENGLISH GRAMMAR (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week.
Review of English grammar with emphasis on practicing standard English skills and correctness for use in academic papers. Appropriate for all levels of English. May be repeated once for credit. (Units do not count toward the Associate Degree.)

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES
A new numbering system has been created for the English courses for English for Speakers of Other Languages: ESOL 810, 820, 830, and 840. The equivalent of the day courses are being offered as two courses during the evening/summer program (e.g., ESOL 810 = ESOL 811 + 812). The course content for the evening/summer courses does not dictate in which half the student enrolls first; however, the student must complete both courses before enrolling in the next level.

ENGL 655 ENGLISH AS A SECOND LANGUAGE SUPPLEMENT (.5-3)
(Credit/No Credit.)
One and one-half to nine hours per week by arrangement. Recommended: Concurrent enrollment in an ESOL course.
Provides assistance for ESL students in communication skills, including reading, writing, listening and speaking. The lab allows students to drop in and to choose the instructional methods they prefer: one-on-one tutoring, software, English practice groups, faculty-taught workshops, and phone-in/online tutoring. (Open entry.) May be repeated for credit a maximum of three times. (Units do not count toward the Associate Degree.)

ESOL 800 ENGLISH FOR SPEAKERS OF OTHER LANGUAGES – NOVICE (1-6)
(Credit/No Credit.)
A minimum of 24 lecture hours and 8 lab hours by arrangement per unit.
Entry-level course for non-native speakers of English who need to learn the basic skills of studying in the U.S. educational system, living in a U.S. community, and communicating in standard English as it is used in the United States. The course provides practice in reading, writing, grammar, listening and speaking. It is the preparatory level for the subsequent five-level sequence of ESOL courses. May be repeated for credit up to a maximum of 6 units. (Units do not count toward the Associate Degree.)

ESOL 810 ENGLISH FOR SPEAKERS OF OTHER LANGUAGES I (6)
Nine lecture hours and one lab hour by arrangement per week. Recommended: Appropriate skill level as indicated by ESL placement test and other measures as necessary.
For beginning non-native speakers of English who need to develop fluency in the basic structures of English and who place in ESOL 810 by examination. Emphasis is on reading, basic grammatical structure acquisition, oral interaction, and writing. (Units do not count toward the Associate Degree.)

visit our website at skylinecollege.edu
ESOL 811 ENGLISH FOR SPEAKERS OF OTHER LANGUAGES I (1ST HALF) (3)
(Credit/No Credit or letter grade.)
Four lecture hours and one lab hour per week. Recommended: Appropriate skill level as indicated by ESL placement test and other measures as necessary.

Designed to be taken before or after ESOL 812, this course is for beginning non-native speakers of English who need to develop fluency in the basic structures of English and who place in ESOL 810 by examination. Emphasis is on reading, grammatical structure acquisition, oral interaction, and writing. This course is equivalent to the first half of ESOL 810. (Units do not count toward the Associate Degree.)

ESOL 812 ENGLISH FOR SPEAKERS OF OTHER LANGUAGES I (2ND HALF) (3)
(Credit/No Credit or letter grade.)
Four lecture hours and one lab hour per week. Recommended: Appropriate skill level as indicated by ESL placement test and other measures as necessary.

Designed to be taken before or after ESOL 811, this course is for beginning non-native speakers of English who need to develop fluency in the basic structures of English and who place in ESOL 810 by examination. Emphasis is on reading, grammatical structure acquisition, oral interaction, and writing. This course is equivalent to the second half of ESOL 810. (Units do not count toward the Associate Degree.)

ESOL 820 ENGLISH FOR SPEAKERS OF OTHER LANGUAGES II (3)
Nine lecture hours and one lab hour by arrangement per week. Recommended: Satisfactory completion of ESOL 810 or both 811 and 812, or appropriate skill level as indicated by ESL placement test and other measures as necessary.

This course is for intermediate students who have studied the grammatical structures, basic reading skills, and elements of writing in ESOL 810, or 811 and 812. Emphasis on developing reading competence and oral and written fluency in the more complex structures of English. (Units do not count toward the Associate Degree.)

ESOL 821 ENGLISH FOR SPEAKERS OF OTHER LANGUAGES II (1ST HALF) (3)
(Credit/No Credit or letter grade.)
Four lecture hours and one lab hour per week. Recommended: Satisfactory completion of ESOL 810 or both 811 and 812, or appropriate skill level as indicated by ESL placement test and other measures as necessary.

Designed to be taken before or after ESOL 822, this course is for intermediate students who have studied the grammatical structures, basic reading skills, and elements of writing in ESOL 810, or 811 and 812. Emphasis on developing reading competence and oral and written fluency in the more complex structures of English. This course is equivalent to the first half of ESOL 820. (Units do not count toward the Associate Degree.)

ESOL 822 ENGLISH FOR SPEAKERS OF OTHER LANGUAGES II (2ND HALF) (3)
(Credit/No Credit or letter grade.)
Four lecture hours and one lab hour per week. Recommended: Satisfactory completion of ESOL 810 or both 811 and 812, or appropriate skill level as indicated by ESL placement test and other measures as necessary.

Designed to be taken before or after ESOL 821, this course is for intermediate non-native speakers of English to take either as a supplement to the core class ESOL 820 or by itself, this course is for listening and writing development. It provides practice in listening to lectures, taking simple notes, and writing grammatical English sentences and coherent paragraphs so that student will be ready for essay writing as they proceed through the ESOL program to ESOL 840 and ENGL 400. (Units do not count toward the Associate Degree.)

ESOL 823 LISTENING FOR WRITING, INTERMEDIATE (3)
(Credit/No Credit.)
Three lecture hours and one lab hour by arrangement per week. Recommended: Satisfactory completion of ESOL 810 or both 811 and 812, or appropriate skill level as indicated by ESL placement test and other measures as necessary.

For intermediate non-native speakers of English to take either as a supplement to the core class ESOL 820 or by itself, this course focuses on developing students’ understanding of written English through class discussions of texts rich in cultural content familiar to most Americans. The readings will be selected from a variety of easier-to-read genres of American classics, for example, children’s literature. (Units do not count toward the Associate Degree.)

ESOL 824 READING FOR CONVERSATION, INTERMEDIATE (3)
(Credit/No Credit.)
Three lecture hours and one lab hour by arrangement per week. Recommended: Satisfactory completion of ESOL 810 or both 811 and 812, or appropriate skill level as indicated by ESL placement test and other measures as necessary.

For intermediate non-native speakers of English to take either as a supplement to the core class ESOL 820 or by itself, this course focuses on developing students’ understanding of written English through class discussions of texts rich in cultural content familiar to most Americans. The readings will be selected from a variety of easier-to-read genres of American classics, for example, children’s literature. (Units do not count toward the Associate Degree.)

ESOL 830 ENGLISH FOR SPEAKERS OF OTHER LANGUAGES III (6)
Nine lecture hours and one lab hour by arrangement per week. Recommended: Satisfactory completion of ESOL 820 or both 821 and 822, or appropriate skill level as indicated by ESL placement test and other measures as necessary.

This course is for advanced students who have studied the grammatical structures in ESOL 820, or 821 and 822, and have acquired conversational fluency and basic reading and writing skills. Emphasis is on critical reading, sentence combining, oral exchange, and paragraph writing. (Units do not count toward the Associate Degree.)
ESOL 831 ENGLISH FOR SPEAKERS OF OTHER LANGUAGES III (1ST HALF) (3)
(Credit/No Credit or letter grade.)
Four lecture hours and one lab hour per week. Recommended: Satisfactory completion of ESOL 820 or both 821 and 822, or appropriate skill level as indicated by ESL placement test and other measures as necessary.

Designed to be taken before or after ESOL 832, this course is for advanced students who have studied the grammatical structures in ESOL 820, or 821 and 822, and have acquired conversational fluency and basic reading and writing skills. Emphasis is on critical reading, sentence combining, oral exchange, and paragraph writing. This course is equivalent to the first half of ESOL 830. (Units do not count toward the Associate Degree.)

ESOL 832 ENGLISH FOR SPEAKERS OF OTHER LANGUAGES III (2ND HALF) (3)
(Credit/No Credit or letter grade.)
Four lecture hours and one lab hour per week. Recommended: Satisfactory completion of ESOL 820 or both 821 and 822, or appropriate skill level as indicated by ESL placement test and other measures as necessary.

Designed to be taken before or after ESOL 831, this course is for advanced students who have studied the grammatical structures in ESOL 820, or 821 and 822, and have acquired conversational fluency and basic reading and writing skills. Emphasis is on critical reading, sentence combining, oral exchange, and paragraph writing. This course is equivalent to the second half of ESOL 830. (Units do not count toward the Associate Degree.)

ESOL 840 ENGLISH FOR SPEAKERS OF OTHER LANGUAGES IV (6)
Nine lecture hours and one lab hour by arrangement per week. Recommended: Satisfactory completion of ESOL 830 or both 831 and 832, or appropriate skill level as indicated by ESL placement test and other measures as necessary.

This course is for advanced students who have studied the grammatical structures, reading skills, and elements of paragraph writing in ESOL 830, or 831 and 832. Emphasis is on thematic reading, discussion, and writing from paragraph to essays, supplemented by exercises in proofreading. (Units do not count toward the Associate Degree.)

ESOL 841 ENGLISH FOR SPEAKERS OF OTHER LANGUAGES IV (1ST HALF) (3)
(Credit/No Credit or letter grade.)
Four lecture hours and one lab hour per week. Recommended: Satisfactory completion of ESOL 830 or both 831 and 832, or appropriate skill level as indicated by ESL placement test and other measures as necessary.

Designed to be taken before or after ESOL 842, this course is for advanced students who have studied the grammatical structures, reading skills, and elements of paragraph writing in ESOL 830, or 831 and 832. Emphasis is on thematic reading, discussion, and writing from paragraphs to essays, supplemented by exercises in proofreading. This course is equivalent to the first half of ESOL 840. (Units do not count toward the Associate Degree.)

ESOL 842 ENGLISH FOR SPEAKERS OF OTHER LANGUAGES IV (2ND HALF) (3)
(Credit/No Credit or letter grade.)
Four lecture hours and one lab hour per week. Recommended: Satisfactory completion of ESOL 830 or both 831 and 832, or appropriate skill level as indicated by ESL placement test and other measures as necessary.

Designed to be taken before or after ESOL 841, this course is for advanced students who have studied the grammatical structures, reading skills, and elements of paragraph writing in ESOL 830, or 831 and 832. Emphasis is on thematic reading, discussion, and writing from paragraphs to essays, supplemented by exercises in proofreading. This course is equivalent to the second half of ESOL 840. (Units do not count toward the Associate Degree.)

ESOL 843 LISTENING FOR WRITING, ADVANCED (3)
(Credit/No Credit.)
Three lecture hours and one lab hour by arrangement per week. Recommended: Satisfactory completion of ESOL 830 or both 831 and 832, or appropriate skill level as indicated by ESL placement test and other measures as necessary.

For advanced non-native speakers of English to take either as a supplement to the core class ESOL 840 or by itself, this course is for listening and writing development. It provides practice in listening to lectures, note taking, and research reporting. It reviews the elements of paragraph and essay writing, supplemented by exercise in proofreading so that students will be ready for essay writing in ENGL 400. (Units do not count toward the Associate Degree.)

ESOL 844 READING FOR CONVERSATION, ADVANCED (3)
(Credit/No Credit.)
Three lecture hours and one lab hour by arrangement per week. Recommended: Satisfactory completion of ESOL 830 or both 831 and 832, or appropriate skill level as indicated by ESL placement test and other measures as necessary.

For advanced non-native speakers of English to take either as a supplement to the core class ESOL 840 or by itself, this course focuses on developing students’ further understanding of written English through class discussions of more complex texts rich in cultural content familiar to most Americans. The readings will be selected from a variety of genres of American classics. (Units do not count toward the Associate Degree.)

ESOL 855 ACCENT REDUCTION (3)
(Credit/No Credit or letter grade.)
Three lecture hours and one lab hour by arrangement per week.

For all non-native speakers who need to improve their spoken English. The course will cover the English sound system in general, but the particular focus will be on increasing individual listening comprehension and improving individual student production of standard English as it is spoken in the United States. (Units do not count toward the Associate Degree.)
ESOL 875 ENGLISH GRAMMAR FOR SPEAKERS OF OTHER LANGUAGES (3)
(Credit/No Credit or letter grade.)
Total of 48 lecture hours.
ESOL students review basic forms of English grammar, some of them not found in their native languages: auxiliary verbs and verb tenses, definite and indefinite articles, and idiomatic use of prepositions. Appropriate for all levels of ESOL. (Units do not count toward the Associate Degree.)

FAMILY AND CONSUMER SCIENCES

FCS 113 TEXTILES (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Study of natural and chemical fibers; yarns and cloth construction, weaving, finishing, dyeing. Study of purchase, use and care of textiles. Federal legislation, cost and labeling as related to consumer use. Student will examine the various characteristics of fibers and fabrics, including health and comfort levels on the body. Also listed as FASH 113. Transfer credit: UC; CSU (C1).

FCS 119 CLOTHING, CULTURE AND SOCIETY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Study of bodily adornment in terms of cultural, ethnic, historical, sociological, psychological, and economic considerations. Comparison will be made of various cultures and subcultures. Fashion trends and merchandising techniques as they affect the consumer will also be discussed. Student will examine the importance of clothing as an expression of individual and group identity. Also listed as FASH 119. Transfer credit: CSU (C1).

FCS 212 CHILD, FAMILY AND COMMUNITY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Patterns of family living in a changing society and the role and interaction of members; varying factors affecting family life – racial, cultural, economic, social, urban and suburban; home-nursery relationships; community resources – health, welfare, education, counseling, guidance, recreation and religion. Designed with a cross-cultural approach to the child, family, and community. Also listed as ECE. 212. Transfer credit: UC; CSU (D3).

FCS 213 CHILD-PARENT RELATIONS (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Emotional, social, intellectual and physical development of children with an emphasis on a multicultural approach to parent-child relations, diversity of family systems in today’s society, and how these influence the developing child. Also listed as ECE. 214. Transfer credit: CSU (E1).

FCS 310 NUTRITION (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Basic concepts of nutrition. Role of nutrients in maintenance of life processes; utilization of food by the body; hunger and appetite; personal nutritional evaluation. Special emphasis given to nutrition education and community, national and world nutrition problems. Transfer credit: UC; CSU (E1). (CAN FCS 2).

FCS 311 CHILDREN’S NUTRITION (1)
Three lecture hours per week for six weeks. Recommended: Eligibility for ENGL 836.
This course is designed to assist parents of young children to develop an understanding of how nutrition contributes to mental and physical growth. The student will learn ways to teach these principles to young children. There will be simple food preparation techniques, and an examination of current literature. Also listed as ECE. 311. Transfer credit: CSU.

FCS 313 HOLISTIC PERSPECTIVE IN NUTRITION (1)
Three lecture hours per week for six weeks. Recommended: Eligibility for ENGL 836.
This course will provide an overview of both traditional and holistic principles of nutrition, including nutrients and their use in preventing nutritional deficiencies and maintaining health. Included in the course will be a critical analysis of nutritional programs such as food combining, vegetarian, and macrobiotics. Attention will also be given to the effects of environment, mind, and emotions on nutrition. Transfer credit: CSU (E1).

FCS 665 SELECTED TOPICS IN FAMILY AND CONSUMER SCIENCES (.5 or 1 or 1.5)
(Credit/No Credit or letter grade.)
Eight lecture hours per .5 unit.
Discussion and evaluation of current topics, trends and issues in the field of family and consumer sciences. New concepts include review of research and application of findings. The course will focus on one of the following topics related to nutrition and child-family studies issues: nutrition and aging, nutrition and sports training, nutrition and weight control, nutrition and pregnancy/lactation, nutrition and HIV/AIDS, nutrition, foods and world culture, and survey/trends and issues in family and consumer sciences. Transfer credit: CSU.
FASHION MERCHANDISING

FASH 113 TEXTILES (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Study of natural and chemical fibers; yarns and cloth construction, weaving, finishing, dyeing. Study of purchase, use and care of textiles. Federal legislation, cost and labeling as related to consumer use. Student will examine the various characteristics of fibers and fabrics, including health and comfort level on the body. Also listed as FCS 113. Transfer credit: UC; CSU (C1).

FASH 119 CLOTHING, CULTURE AND SOCIETY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Study of bodily adornment in terms of cultural, ethnic, historical, sociological, psychological and economic considerations. Comparison will be made of various cultures and subcultures. Fashion trends and merchandising techniques as they affect the consumer will also be discussed. Student will examine the importance of clothing as an expression of individual and group identity. Also listed as FCS 119. Transfer credit: CSU (C1).

FASH 151 FASHION MERCHANDISING (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Through lectures, guest speakers and field trips the student will have the opportunity to explore a variety of aspects of the ready-to-wear and couture industry. Production cost, promotion and advertising techniques will be studied in relation to large and small manufacture and retail operations. Personal requirements to help prepare students for employment in the field of fashion merchandising are given for guidance value. Transfer credit: CSU.

FASH 152 VISUAL MERCHANDISING (3)
Three lecture hours per week.
Designed to provide the basic techniques needed for the visual presentation of merchandise. The student will be involved in the study of interior displays, the art of dramatizing the display, store windows, and their coordination with sales promotion. (Fall Semester only.) Transfer credit: CSU.

FASH 153 APPAREL AND HOME FASHION ANALYSIS (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Designed to provide information regarding the types and construction features of fashion apparel (including product knowledge of children’s, men’s and women’s apparel) and accessories necessary for fashion buying, consumer information, and the interpretation of this information. This course includes study of textile and non-textile merchandising, fashion lines, and forecasting for home fashions. Transfer credit: CSU.

FASH 156 FASHION SHOWS AND SPECIAL EVENTS (3)
(Spring Semester only.)
Three lecture hours per week.
Designed to provide the basic techniques needed for the visual presentation of merchandise through production of fashion shows and special events. The student will be involved in the observation and production of various types of shows and promotions. Transfer credit: CSU.

FASH 160 BUSINESS OF IMAGE CONSULTING (2)
Three lecture hours per week. Prerequisite: FASH 117 or equivalent.
This course will acquaint students with the principles and practices of the image consulting industry. Setting up and marketing a business; developing a professional knowledge base and resources; working with clientele; setting fees and keeping business records. Students will gain “how-to” experience through lectures, field trips and individual and group projects. Transfer credit: CSU.

FASH 665 SELECTED TOPICS IN FASHION (.5 or 1 or 1.5)
(Credit/No Credit or letter grade.)
Eight lecture hours per .5 unit.
Designed to enhance interest and develop skills in the business of fashion. The course will focus on one of the following specific topics: principles in color, basics of visual display, business of modeling, fashion as a cultural experience, fashion survey. May be repeated for credit. Transfer credit: CSU.

FILM

FILM 370 FILM PRODUCTION (3)
(Credit/No Credit or letter grade.)
Four to six hours per week plus additional lab hours by arrangement.
A basic course in the techniques of film production, including operation of motion picture cameras, meters, lenses and related equipment, scripting for film, editing for pictorial continuity. Emphasis on production crew functions. May be repeated for credit. Transfer credit: UC; CSU (C1).

FILM 375 SCRIPTWRITING FOR TELEVISION AND FILM (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Formats and techniques of writing for film and television, including the study and analysis of professional scripts. Scripting assignments will include news features, public service announcements, commercials, dramatic shorts, and documentary and information films. Transfer credit: CSU.

FILM 380 BASIC VIDEO PRODUCTION (3)
(Credit/No Credit or letter grade.)
Two lecture and three lab hours per week.
Course introduces students to basic video field production, including an orientation to studio production. It incorporates elements of producing, directing, lighting, sound recording, working on a production crew, preparing video titles and graphics, video editing and field production with camcorders. Two video projects are required. Transfer credit: CSU.
FILM 385 INTERMEDIATE FILM/VIDEO WORKSHOP (2)
(Credit/No Credit or letter grade.)
Two lecture hours plus two lab hours per week. Prerequisite: FILM 370 or 380. Recommended: FILM 375.
Students learn advanced camera, lighting and editing techniques as they work on individual projects or collaborate with other students on short film or video projects. They will produce short works based on scripts they have written, or scripts written by students in Film 375. May be repeated for credit. Transfer credit: CSU.

FILM 440 FILM STUDY AND APPRECIATION (3)
Three lecture hours per week. Prerequisite: ENGL 100 or 105.
A critical look at film history and culture from silent and classical Hollywood to Japanese and European films. Students learn to critique classical, modern and avant-garde films and to analyze the structure of cinematic language, i.e., motifs, metaphors, narrative cause-effect devices and oppositions. Students develop a visual and ideological understanding of film. Transfer credit: UC; CSU (C2).

FILM 450 GREAT FILM DIRECTORS (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 100.
A study of great film directors using the “auteur” approach to film criticism. Students will study in depth the films of great directors such as Hitchcock, Altman and Kubrick using signature themes and visual style to compare and contrast their works. Thematic evolution and historical connections will also be examined. Transfer credit: UC; CSU.

GEOGRAPHY

GEOG 110 CULTURAL GEOGRAPHY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Introduction to cultural geography with a survey of major world cultural patterns, resources, population, and the changing relationships of human groups and the physical environment. Transfer credit: UC; CSU (D3). (CAN GEOG 4).

GEOG 150 WORLD REGIONAL GEOGRAPHY (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
A basic survey of geographic regions of the world. The location of physical and cultural regions such as mountain ranges, climatic regions, population centers, urban-economic concentrations, and political divisions. There will be an emphasis on historical influences and future trends in the changing world. Transfer credit: UC; CSU (D3).

GEOG 301 INTRODUCTION TO MAP READING FOR GIS (1)
(Credit/No Credit or letter grade.)
A total of 32 class hours. Recommended: Eligibility for ENGL 836; and skill in using Windows operating system and internet, such as found in CAOT 104 and CAOT 400, or equivalent.
This course focuses on map reading skills and introduces the many uses of geographic information systems software. Emphasis on cartographic techniques from paper maps to computer generated maps. Transfer credit: CSU.

GEOG 302 INTRODUCTION TO GIS AND ARC VIEW (1)
(Credit/No Credit or letter grade.)
A total of 32 class hours. Prerequisite: GEOG 301. Recommended: Skill in using Windows operating system and internet, such as found in CAOT 104 and CAOT 400, or equivalent.
This course introduces and provides hands-on instruction in ArcView geographic information systems software. Focus is on the functionality of GIS as an effective tool for modeling and analyzing complex spatial relationships. Transfer credit: CSU.

GEOG 303 GIS APPLICATIONS (1)
(Credit/No Credit or letter grade.)
A total of 32 class hours. Prerequisite: GEOG 302. Recommended: Skill in using Windows operating system and internet, such as found in CAOT 104 and CAOT 400, or equivalent.
Applications of ArcView GIS software. Emphasis is placed on training in use of technology and software in order to provide students with skills and a conceptual basis on which to build further expertise in GIS. Students will complete projects in an area of their choice. Transfer credit: CSU.

GEOLOGY

GEOL 100 SURVEY OF GEOLOGY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Introduction to the origin of rocks and minerals; the processes which have been important throughout geologic time, both on and beneath the surface, in giving the earth its present form; and the principles of scientific investigation that are used in interpreting geologic features. A brief sketch of the geological history of the earth and evolution of its animal and plant inhabitants. Not open to students who have taken or are taking GEOL 210. Transfer credit: UC; CSU (B1).

GEOL 105 ENVIRONMENTAL EARTH SCIENCE (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Investigation of environmental earth science topics including aspects of weather and climate, ground and surface water, geologic processes and land forms, recovery and utilization of natural resources, air and water pollution, and energy. Emphasis on understanding and avoiding the dangers of natural hazards such as storms, floods, earthquakes, and landslides. Transfer credit: UC; CSU (B1).
GEOL 115 EARTHQUAKES (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Investigation of the history, origin, measurement, and prediction of earthquakes, including their physical and social effects. Special emphasis on the San Andreas fault system, and practical knowledge relating to the hazards of living in earthquake country. Transfer credit: CSU.

GEOL 120 GEOLOGY OF THE NATIONAL PARKS AND MONUMENTS (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
A general introduction to the geology of selected national parks and monuments. The course offers insights into the basic concepts of earth science which are illustrated by these unique settings. Emphasis on local state parks and the geology of the San Francisco Bay area. Transfer credit: CSU.

GEOL 180 GEOLOGY OF CALIFORNIA (3)
Three lecture hours per week. Prerequisite: Eligibility for ENGL 836.
An overview of the general principles of geology with examples from the great diversity of local and regional features found in California. Comparisons to other parts of the world are made, demonstrating that the Golden State contains a microcosm of global geologic evolution. Emphasis on the significant interaction of geology and life in California from the Gold Rush through the Great Earthquake to today. Transfer credit: UC; CSU (B1).

GEOL 210 GENERAL GEOLOGY (4)
Three lecture hours and three laboratory hours per week. Field trips by arrangement. Recommended: Eligibility for ENGL 836. Introduction to the nature and structure of the materials composing the earth and of the various processes which shape the earth’s surface. Recommended for non-science majors to fulfill laboratory science transfer requirement. Transfer credit: UC; CSU (B1, 3). (CAN GEOL 2).

GEOL 220 HISTORICAL GEOLOGY (4)
Three lecture hours and three laboratory hours per week. Field trips by arrangement. Prerequisite: GEOL 210 or GEOL 100. Geological history of the earth and the evolution of its animal and plant inhabitants. Transfer credit: UC; CSU (B1, 3).

GEOL 611 FIELD GEOLOGY I (1)
(Credit/No Credit.)
Field trips by arrangement. Prerequisite: Completion of or concurrent enrollment in GEOL 100 or GEOL 210, or equivalent. Supervised field investigation of selected geologic phenomena. Local field trips and/or weekend excursions to areas of geologic interest (i.e., Lassen Volcanic National Park, Yosemite National Park, Pinnacles National Monument). May be repeated three times for credit. Transfer credit: UC; CSU.

GEOL 612 FIELD GEOLOGY II (2)
(Credit/No Credit.)
One class hour per week and field trips by arrangement. Prerequisite: GEOL 210, or GEOL 100 or equivalent. Discussion and field investigation of selected geologic phenomena. Local field trips and extended excursions to areas of geologic interest (i.e., state and national parks) to be arranged. Transfer credit: UC; CSU.

HEALTH SCIENCE

HSCI 100 GENERAL HEALTH EDUCATION (3)
Three lecture hours per week.
A study of factors which influence personal health. Attention given to the value of good health practices; examination of self and lifestyle for disease risk; and preventive measures for heart disease and cancer. Topics include stress, mental health, sexual reproductive health, sex roles and living with others, nutrition, exercise and weight control. Transfer credit: UC; CSU (E1).

HSCI 130 HUMAN SEXUALITY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
This course provides an overview of human sexual behavior and attitudes. Topics include: sex research, sexual anatomy and response patterns, sexual development and learning, gender identity, conception control, sexual variations and lifestyles, homosexuality, sexual problems and enrichment, relationships and intimacy. Transfer credit: UC; CSU (E1).

HSCI 150 DEATH AND DYING (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Course is designed to increase the knowledge, the understanding, and the coping with the problems of death and dying. Transfer credit: CSU (E1).

HSCI 405 EMERGENCY CARE FOR FIRST RESPONDERS (3)
Three class hours per week.
Develops manipulative and problem solving skills necessary for the initial evaluation and stabilization of victims of emergency illness or trauma. Designed for persons who are interested in a career as a first responder to medical emergencies. Upon completion, student receives CPR and First Responder certificates.

HSCI 420 EKG TECHNOLOGY (3)
(Credit/No Credit or letter grade.)
Three class hours per week and one eight-hour day per week in an EKG Department. Prerequisite: A valid Health Care Provider CPR Card.
Review of cardiovascular anatomy and physiology with emphasis on electro physiology. Interpretation of the normal and abnormal electrocardiogram. Laboratory and clinical site practice running a 12 lead EKG.
HSCI 435 PHARMACY TECHNICIAN TRAINING (11)
A total of 189 lecture hours plus two hours per week by arrangement. Recommended: Completion of ENGL 826 and READ 826 with grades of C or better, or equivalent; completion of MATH 811 with a grade of C or better, or equivalent; and completion of or concurrent enrollment in CAOT 100, or the ability to word process at 20 wpm.

Introductory course in Pharmacy Technician Training. Topics include pharmacy practices and settings, duties of pharmacy technicians, laws and regulations, medical terms and calculations, drug identification, storage and dispensing, and drug packaging and labeling. Transfer credit: CSU.

HSCI 436 PHARMACY TECHNICIAN TRAINING
CLINICAL EXTERNSHIP (1.5)
(Credit/No Credit.)
A total of 96 clinical hours plus two hours per week by arrangement. Prerequisite: Completion of HSCI 435 with a grade of C or better, or equivalent; and negative result to an 8-12 panel drug screen test.

Introductory training in a clinical pharmacy setting. Training may be completed in a hospital or retail pharmacy. Students will perform the duties and functions of a pharmacy technician under the supervision of a licensed pharmacist or registered pharmacy technician. Transfer credit: CSU.

HSCI 484 MEDICAL TERMINOLOGY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

Designed to give students a basic background in medical terminology as used by medical transcriptionists, court reporters, law related occupations, and allied health occupations. The prefixes, roots, and suffixes of commonly used medical words are presented. Proper names of anatomical structures and their relationship to each other are covered by body system. Also listed as BUS. 485. Transfer credit: CSU.

HSCI 665 LIFE STYLES – HEALTH ISSUES (.5 or 1 or 1.5 or 2)
(Credit/No Credit or letter grade.)
Eight lecture hours per .5 unit. Prerequisite: ENGL 400 or 800 eligibility or demonstration of equivalent competency.

Explores contemporary topics or life styles as they relate to the health of individuals or society. Transfer credit: CSU (E1).

HISTORY

HIST 100 HISTORY OF WESTERN CIVILIZATION I (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

Cultural, political, and economic survey of Western history from the beginnings in the Near East to 1660. Emphasis on the intellectual, artistic, and institutional foundations of Western civilization. Transfer credit: UC; CSU (C2). (CAN HIST 4; HIST 100 + HIST 101 = CAN HIST SEQ A).

HIST 101 HISTORY OF WESTERN CIVILIZATION II (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

Western civilization from 1660 to the present, with particular emphasis on European cultural, social, and political development in the 19th and 20th centuries. Transfer credit: UC; CSU (C2). (CAN HIST 4; HIST 100 + HIST 101 = CAN HIST SEQ A).

HIST 104 WORLD CIVILIZATIONS I (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 100 or ENGL 105 or equivalent.

A global and historical survey of civilizations from ancient times to 1500. Focus on Asia/Pacific Islands, Africa, Europe, the Americas, and the Middle East. Emphasis on the origins and development of diverse cultures, political systems, major religions, noted empires, artistic/intellectual achievements, and technological breakthroughs. Transfer credit: UC; CSU (C2, D3).

HIST 106 WORLD CIVILIZATIONS II (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 100 or ENGL 105 or equivalent.

A global and historical survey course of world civilizations from 1500 to the present. Focus on Asia/Pacific Islands, Africa, Europe, the Americas, and the Middle East. Emphasis on the origins of global interdependence, revolutions and nationalist movements, the global economy, cultural and religious issues, technological advancements, and current social issues. Transfer credit: UC; CSU (C2, D3).

HIST 108 SURVEY OF AMERICAN HISTORY (3)
Three lecture hours per week. Partially satisfies American History and Institutions requirement. Recommended: Eligibility for ENGL 836.

A single semester survey that stresses major social, political, and cultural developments in the history of the United States. The course examines selected events, personalities and trends from the colonial period to the present. Transfer credit: UC; CSU (D1).

HIST 201 UNITED STATES HISTORY I (3)
Three lecture hours per week. Partially satisfies American History and Institutions requirement. Recommended: Eligibility for ENGL 836.

U.S. history to the mid-19th century, emphasizing the development of U.S. political, social, economic and cultural foundations. Transfer credit: UC; CSU (D1). (CAN HIST 8; HIST 201 + HIST 202 = CAN HIST SEQ B).

HIST 202 UNITED STATES HISTORY II (3)
Three lecture hours per week. Partially satisfies American History and Institutions requirement. Recommended: Eligibility for ENGL 836.

U.S. History from Reconstruction to the present. Transfer credit: UC; CSU (D1). (CAN HIST 10; HIST 201 + HIST 202 = CAN HIST SEQ B).
HIST 235 HISTORY OF ETHNIC GROUPS IN THE UNITED STATES (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 100.
A survey of the social, economic and political history of ethnic groups in the United States, with particular emphasis on minority communities. In addition to examining the histories of individual ethnic communities, the course will explore the historical relationships between different groups. Transfer credit: UC; CSU (D1).

HIST 240 HISTORY OF ETHNIC GROUPS IN CALIFORNIA (3)
Three lecture hours per week. Partially satisfies American History and Institutions requirement. Recommended: Eligibility for ENGL 836.
A survey of the social, economic and political history of ethnic groups in California, with particular emphasis on minority communities. In addition to examining the histories of individual ethnic communities, the course will explore the historical relationships between different groups. Transfer credit: UC; CSU (D2a).

HIST 244 AFRICAN AMERICAN HISTORY (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Partially satisfies American History and Institutions requirement. Recommended: Eligibility for ENGL 836.
A history of the African-American community, beginning with an introduction to West African society and continuing through colonial times to the present. Transfer credit: UC; CSU (D1).

HIST 248 WOMEN AND THE AMERICAN EXPERIENCE (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 100 or ENGL 105, or equivalent.
This course will examine the experience of women in the United States from the colonial era to the present. Exploration of the diverse ways in which women have lived, worked and contributed to the social, cultural, political and economic development of the United States. Transfer: CSU (D1).

HIST 310 CALIFORNIA HISTORY (3)
Three lecture hours per week. Partially satisfies American History and Institutions requirement. Recommended: Eligibility for ENGL 836.
A study of contemporary California with inquiry into how and why its political, economic, social and cultural qualities have developed. Includes examination of the native Californian, Spanish and American Periods; the institutions, functions and interrelations of federal, state and local politics; California’s membership in the Pacific community; and the environment. Transfer credit: UC; CSU (D2a).

HIST 420 SURVEY OF LATIN AMERICAN HISTORY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
A comparative, chronological survey of South and Central American history including geography, indigenous peoples, early contact with Europeans, conquest, and struggle for independence. Development of modern Latin American nations, cultural uniqueness, economics, politics, society, and current problems will be explored. Transfer credit: UC; CSU (C2).

HIST 430 EARLY ASIAN CIVILIZATIONS (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 100 or ENGL 105 or equivalent.
A historical and cultural survey of East Asia, South Asia, Southeast Asia, and the Philippines from the origins to the 18th Century. Emphasis will be on a critical evaluation of the main social, political, economic, cultural, intellectual and historical trends that have shaped the Asian countries. Transfer credit: UC; CSU (C2, D3).

HIST 435 HISTORY OF THE PHILIPPINES (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 100 or ENGL 105 or equivalent.
A historical and cultural survey of the Philippines from its origins to the present. Emphasis will be on a critical evaluation of the main social, political, economic, cultural, intellectual and historical trends that have shaped the Philippines. Transfer credit: UC; CSU (C2, D3).

HOME ECONOMICS
See listings under Family and Consumer Sciences.

HUMANITIES

HUM. 106 THE AWAKENING OF INDIVIDUALITY (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
An interdisciplinary exploration of individuality and self-reliance aimed at creating greater self-awareness and critical thinking. Various concepts of individuality are explored along with an examination of trends which destroy it. Creative alternatives aimed at increasing individuality are developed. Partially fulfills general education requirements in the Humanities. Transfer credit: CSU (C2).

HUM. 115 INTRODUCTION TO THE ARTS – LIVE! (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week plus attendance of six to eight events. Recommended: Eligibility for ENGL 836.
A broad survey of the arts including music, dance, theater, films, and visual arts with an emphasis on developing arts appreciation both in theory and through attendance and critiques of live performances and exhibits. Partially satisfies the general education requirement in the area of the Humanities. Transfer credit: UC; CSU (C2).

HUM. 116 CHILDREN’S ARTS APPRECIATION (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
General survey of art forms for children with an emphasis on arts appreciation. Children’s literature, music, art, dance, theater, and film will be discussed and analyzed. Opportunities for exploring children’s arts in the Bay Area will be identified. Partially fulfills the general education requirement in the Humanities. Transfer credit: CSU (C2).
HUM. 117 THE ARTS, THE SENSES AND THE IMAGINATION (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

Exploration and development of skills necessary for arts appreciation. Promotes growth in the areas of sensory awareness, perception, discrimination, interpretation of meaning in works of art, and the importance of the arts in society. Areas of study selected from film, music, poetry, fiction, architecture, painting, drawing, dance, drama, and domestic arts. Partially satisfies general education requirement in the area of the humanities for the Associate Degree. Transfer credit: CSU (C1).

INTERIOR DESIGN

INTD 110 ENVIRONMENTAL DESIGN (3)
Three lecture hours per week.

Detailed studies of the home's interior environment. Selection and arrangement of furnishings; principles and elements of design as they relate to the selection and coordination of the home furnishings and accessories. Transfer credit: CSU (C1).

INTD 120 DESIGNING INTERIORS FOR MULTICULTURAL POPULATIONS (3)
Three lecture hours per week.

Detailed studies of the home's interior environment with an emphasis on the influences of Asian and Latin American cultures, as well as other cultures, on Western interior design; the cultural preferences of members of these cultures living in a Western society will be emphasized. Transfer credit: CSU (C1).

ITALIAN

Language Lab and Listening Requirement: Students enrolled in foreign language courses are required to make use of the language lab as prescribed by each department. Imitation, response, and independent practice are integral features of the study of a foreign language at the College.

ITAL 111, 112 ELEMENTARY ITALIAN I AND II (3, 3)
(Credit/No Credit or letter grade.)
Three lecture hours and one lab hour per week. ITAL 111 – Recommended: Eligibility for ENGL 836 or ENGL 400 or equivalent. ITAL 112 – Prerequisite: ITAL 111 or equivalent.

A two-semester sequence covering the same course material as a university level first semester Italian course. The student will acquire the ability to speak, read, and write in the Italian language at an elementary level and understand the Italian culture at a basic level. Transfer credit: UC; CSU (C2).

JAPANESE

Language Lab and Listening Requirement: Students enrolled in foreign language courses are required to make use of the language lab as prescribed by each department. Imitation, response, and independent practice are integral features of the study of a foreign language at the College.

JAPN 111, 112 ELEMENTARY JAPANESE I AND II (3, 3)
(Credit/No Credit or letter grade.)
Three lecture hours and one lab hour per week. JAPN 111 – Recommended: Eligibility for ENGL 836 or ENGL 400 or equivalent. JAPN 112 – Prerequisite: JAPN 111 or equivalent.

A two-semester sequence covering the same course material as a university level first semester Japanese course. The student will acquire the ability to speak, read, and write in the Japanese language at an elementary level and understand the Japanese culture at a basic level. Transfer credit: UC; CSU (C2).

JAPN 115 BASIC BUSINESS JAPANESE (3)
(Credit/No Credit or letter grade.)
Three lecture hours and one lab hour by arrangement per week.

Designed to help students learn Japanese for business purposes. Students will acquire relevant vocabulary, phrases and expressions, and will improve listening comprehension. The learner, regardless of language level in Japanese, will become familiar with questions and responses commonly heard in Japanese business contexts. Transfer credit: CSU.

JOURNALISM

JOUR 110 MASS MEDIA AND SOCIETY (3)
Three lecture hours per week. Prerequisite: Eligibility for ENGL 836 or ENGL 400, or equivalent.

A general-interest survey course which provides a historical and theoretical perspective through which to assess the impact of the media – newspapers, magazines, the Internet, radio, television, film, advertising, and public relations – have had on society. Students will learn about the rights and responsibilities of the media, as well as the way in which economic, ethical and legal concerns influence media decisions. The course trains students to become discerning media consumers in this information-saturated age. Transfer credit: UC; CSU (D3). (CAN JOUR 4).

JOUR 120 NEWSWRITING (3)
Three lecture hours and one lab hour per week. Prerequisite: Eligibility for ENGL 836, or ENGL/READ 846, or ENGL 400, or equivalent.

Techniques for news gathering, judging news values, and writing various journalistic styles (news stories, editorials, features, columns, sports for print and electronic media). Designed for students interested in professional preparation in print and electronic journalism. Transfer credit: UC; CSU. (CAN JOUR 2).
JOUR 300 NEWSPAPER STAFF (3)
Three lecture hours and three lab hours by arrangement per week. Prerequisite: Eligibility for ENGL 836, or ENGL/READ 846, or ENGL 400, or equivalent. Recommended: Completion of or concurrent enrollment in JOUR 120.

Production of the college newspaper. Discussion and criticism by staff of the publication. Students will get practical experience in writing as preparation for future print and electronic media work. May be repeated up to three times for credit. Transfer credit: CSU.

LEARNING SKILLS

LSKL 100 STRATEGIES FOR ACADEMIC SUCCESS (2)
Two lecture hours per week.

Course will increase student’s success in college by improving and/or developing those skills necessary for college study. Topics in the course include: goals clarification, time planning, test-taking, communication skills, study techniques, critical thinking, question-asking skills, library use, memory techniques and personal issues related to pursuing college goals. Transfer credit: CSU.

LSKL 110 DIRECTED EXPERIENCE IN TUTORING (.5-3)
(Credit/No Credit.)
One lecture hour per week plus a minimum of three lab hours per week by arrangement. Prerequisite: Minimum grade of B in subject to be tutored and letter of recommendation from instructor in the subject area to be tutored.

This course enables students to serve as tutors and provide academic assistance to other students (learners or tutees). Student tutors help tutee study partners to: 1) understand the concepts of specific courses and 2) apply effective study skills. (Open entry.) Transfer credit: CSU.

LSKL 800 SUPERVISED TUTORING (0)
One to six lab hours per week by arrangement. Prerequisite: Concurrent enrollment in course in which tutorial assistance is being provided.

Under the direction of faculty in the Learning Center, students will receive tutorial assistance in areas of identified need from tutors who have demonstrated competence in a specific subject, skill and/or discipline and who have successfully completed a tutorial training course. (Open entry.) Transfer credit: CSU.

LSKL 801 APPLIED STUDY SKILLS ASSISTANCE (.5-3)
(Credit/No Credit.)
One class hour and 1-6 lab hours by arrangement per week.

This course assists students to develop the study skills necessary for successful college work. Under the supervision of the instructor and working with tutors, students will learn a variety of study techniques directed toward specific fields of study. These techniques include note taking, communication skills, outline preparation, etc. May be repeated for a maximum of six units. (Open entry) (Units do not count toward the Associate Degree.) Transfer credit: UC; CSU.

LIBRARY

LSCI 100 INTRODUCTION TO INFORMATION RESEARCH (1)
(Credit/No Credit or letter grade.)
One hour per week of individualized study.

An introduction to the basic concepts and tools used in information research. Techniques for approaching the research process using critical thinking skills are presented. Prepares students in any major for information research at four-year colleges and universities. Transfer credit: UC; CSU.

LSCI 105 ONLINE RESEARCH (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week and two lab hours by arrangement.

Students learn how to conduct comprehensive library research using online resources, especially resources available on the World Wide Web. Emphasis on effective techniques for accessing and searching online databases and other research tools to identify and evaluate quality information. Offered in an online format. Transfer credit: UC; CSU.

LSCI 106 ONLINE RESEARCH I: INTRODUCTION TO ONLINE RESEARCH (1)
(Credit/No Credit or letter grade.)
Three lecture hours plus two lab hours by arrangement per week for six weeks.

Students are introduced to basic information research skills using general online resources available on the World Wide Web. Emphasis is on effective techniques for accessing and searching top research databases and other online research tools to identify and evaluate quality information sources. Offered in an online format. Transfer credit: UC; CSU.

LSCI 107 ONLINE RESEARCH II: SPECIFIC TOPICS, TOOLS & STRATEGIES (1)
(Credit/No Credit or letter grade.)
Three lecture hours plus two lab hours by arrangement per week for six weeks. Prerequisite: LSCI 106.

Students learn in-depth online research skills using subject-specific databases, other specialized online resources, and professional online database services such as Lexis-Nexis and Dialog. Emphasis is on effective strategies for searching appropriate online databases and other Web-based research tools to access quality information sources. Offered in an online format. Transfer credit: CSU.

LSCI 108 ONLINE RESEARCH III: DEVELOPING WEB-BASED ANNOTATED BIBLIOGRAPHIES (1)
(Credit/No Credit or letter grade.)
Three lecture hours plus two lab hours by arrangement per week for six weeks. Prerequisite: LSCI 107.

Students will develop web-based annotated bibliographies by learning strategies for using online research tools to evaluate the quality of all types of information sources, methods for communicating with experts in specific fields of study, social issues related to online research, and appropriate citation format for all types of sources. Offered in an online format. Transfer credit: CSU.
LIT. 110 DIGITAL ORAL RESEARCH PROJECT (1)  
(Credit/No Credit or letter grade.)  
One lecture hour per week.  
A practical introduction to methods and techniques of planning, carrying out, editing and documenting oral research interviews using digital audio technology. Students will learn to interview people in order to record and organize information relevant to specific historical, social, cultural, ethnic or other areas of research interest. Completed digital oral research projects will be included in the College Library’s oral history website. Transfer credit: CSU.

LIT. 116 INTRODUCTION TO WORLD LITERATURE (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours per week. Prerequisite: ENGL 100 or ENGL 105 or equivalent.  
A sampling of world literature, from classic to modern. Students will examine how fiction, poetry, essays and plays are used to express both universal and regional concerns and the human struggle common to all of us. Transfer credit: UC; CSU (C2).

LIT. 166 WOMEN ON WRITING (.5)  
(Credit/No Credit or letter grade.)  
A total of eight lecture hours.  
Exploration of diverse women’s experience as portrayed in a variety of genres. Students will read, hear from and discuss women authors who write in such modes as the novel, short story, poetry, drama, film, news reporting and editorial comment, memoir, biography, and historical fiction. Course participants will examine and celebrate women’s voices in contemporary writing. May be repeated for a maximum of 3 units. Also listed as ENGL 166. Transfer credit: UC; CSU.

LIT. 191 CHILDREN’S LITERATURE (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours per week. Recommended: Eligibility for ENGL 400, or ENGL 836 and READ 836, or ENGL/READ 846, or equivalent.  
An overview of the body of world literature deemed appropriate and enriching for children from infancy to adolescence. The course is designed to impart knowledge about and practice in storytelling techniques, as well as practical experience in presenting age-appropriate literature to children and youth. Theory and practice in discerning literary genres, criteria for selection, and techniques for using classic and contemporary literature with young people. Transfer credit: UC; CSU (C2).

LIT. 225 MIRRORS OF TODAY: CONTEMPORARY POETRY (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours per week. Prerequisite: ENGL 100 or 105 or equivalent.  
The poetry of the last quarter of the twentieth century is both a product of and a reaction against our “postmodern condition.” This course, by situating major examples of this poetry in the relevant social, intellectual, and critical contexts, clarifies the meaning and methods of contemporary poetry in English. Transfer credit: UC; CSU (C2).

LIT. 251 WOMEN IN LITERATURE (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours per week. Prerequisite: ENGL 100 or 105 or equivalent.  
The novel as a genre reveals the human condition through an art medium that allows exploration of the multitude of themes that only a novel can provide. The novel allows room for the noblest of human qualities, along with the basest. Transfer credit: UC; CSU (C2).
LIT. 265 ASIAN AMERICAN LITERATURE (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Prerequisite: ENGL 100 or 105 or equivalent.
A survey of Asian American writing of the twentieth century will acquaint students with the distinct literary and aesthetic qualities and the personal and cultural concerns, such as relocation and dislocation, of writers deriving from two cultures. Authors may include Chinese Americans, Japanese Americans, Vietnamese Americans, Korean Americans, and Indian Americans. Material will be presented in a variety of genres. Transfer credit: UC; CSU (C2).

LIT. 266 BLACK LITERATURE (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Prerequisite: ENGL 100 or 105 or equivalent.
A survey of Black American literature from 1619 to the present. Literature such as autobiographical works, poetry, short stories, drama, folk tales, novellas, and novels will be included to introduce and explore the qualities of Black American writing. Transfer credit: UC; CSU (C2).

LIT. 267 FILIPINO AMERICAN LITERATURE (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Prerequisite: ENGL 100 or 105 or equivalent.
A survey of Filipino American writing of the twentieth century will acquaint students with the issues that these bicultural authors address as they move between two different societies. The literature reflects the unique background of shared language and history, as well as the contrasts between the cultures of the Philippines and the United States. Material will be presented in a variety of genres. Transfer credit: UC; CSU (C2).

LIT. 370 READINGS IN LITERATURE OF THE LATINO IN THE UNITED STATES (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Prerequisite: ENGL 100 or 105 or equivalent.
A survey of literary contributions of Hispanic writers in the United States. A study of the historical, sociopolitical, and cultural concerns of Hispanics in the U.S. as these appear in novels, short stories, and poetry. A glimpse into the struggle for self-identity and self-determination and into the forces that interact in the course of this struggle. A glance into the magical world of different perspectives of reality. Requires writing of essays dealing with the materials covered. Transfer credit: UC; CSU (C2).

LIT. 373 LATIN AMERICAN LITERATURE IN TRANSLATION (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Prerequisite: ENGL 100 or 105 or equivalent.
Innovative and influential, Latin American literature vividly portrays life and mores of our neighboring countries to the south. This course samples greater and lesser-known works, revealing the literary trends and characteristics that have earned world recognition. Material will be presented in a variety of genres. Transfer credit: UC; CSU (C2).

LIT. 416 MODERN EUROPEAN LITERATURE IN TRANSLATION (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Prerequisite: ENGL 100 or ENGL 105 or equivalent.
Historically, and especially today, Europe is a multicultural society with people from all regions of the world. This course may be offered as a survey of European literature or may focus on a specific region. Transfer credit: UC; CSU (C2).

LIT. 432 FOLKLORE (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Prerequisite: ENGL 100 or 105 or equivalent.
A lively study of folk tales, legends, beliefs, superstitions, proverbs, mythology, folk life, folk speech, folk songs, lyrics, folk epic, and their influence in the literature and culture that form our heritage. Special attention will be given to folklore of various racial and ethnic groups that mold American society. Transfer credit: UC; CSU (C2).

MATHEMATICS
Students are encouraged to take the Math placement tests prior to initial placement in courses. Math placement tests are given to students to assist the counselor and the division in guiding them to the appropriate Math course. Proper placement in Math assures that students will begin their college studies in courses where they will have the best chance of success. Initial placement in classes is recommended on the basis of test scores. The tests are given on announced dates throughout the year. The normal sequence of courses for Mathematics majors is 110, 115, 120, 130, 222, 251, 252 and 253. All students are encouraged to meet with a counselor to determine the correct sequence of Math classes for all majors.
Prerequisites for the various courses are detailed in the descriptions that follow. Questions regarding equivalency of courses, transfer credit, and the like should be referred to the Division Dean.
Mathematics courses may require a minimum of one hour by arrangement per week in addition to class hours.

MATH 110 ELEMENTARY ALGEBRA (5)
Five lecture hours per week. Prerequisite: Satisfactory completion of MATH 811 with a grade of C or better or appropriate score on the college placement test and other measures as appropriate.
An introduction to elementary algebra emphasizing basic algebraic concepts and those skills necessary to apply the concepts. Topics will provide an introduction to symbol manipulation and the analytical methods for solving applications problems appropriate to the introductory level. A core of mathematical topics, including real numbers, order of operations, linear equations and graphs, polynomials, and factoring will be presented.
MATH 111 ELEMENTARY ALGEBRA I (3)
Three lecture hours per week. Prerequisite: Successful completion of MATH 811 with a grade of C or better, or appropriate placement test score and other measures as appropriate.

An introduction to elementary algebra emphasizing basic algebraic concepts. Topics will provide an introduction to symbol manipulation, and the analytical methods for solving applications problems appropriate to the introductory level. A core of mathematical topics, including: real numbers, order of operations, linear equations and graphs. This course is equivalent to the first half of MATH 110 – Elementary Algebra.

MATH 112 ELEMENTARY ALGEBRA II (3)
Three lecture hours per week. Prerequisite: MATH 111 with a grade of C or better or other measures as appropriate.

A continued introduction to elementary algebra emphasizing basic algebraic concepts and those skills necessary to apply the concepts. Topics will continue to provide the use of symbol manipulation, and analytical methods for solving applications problems appropriate to the introductory level. The second half of the basic core of mathematical topics of elementary algebra including polynomials, rational and irrational expressions, and quadratic equations will be presented.

MATH 115 GEOMETRY (4)
Four lecture hours per week. Prerequisite: MATH 110 with a grade of C or better, satisfactory placement test score, or other measures as appropriate. May be taken concurrently with MATH 120.

A study of Euclidean geometry with aspects of analytic geometry, covering plane and solid figures, the Cartesian coordinate system, and using formal logic.

MATH 120 INTERMEDIATE ALGEBRA (5)
Five lecture hours per week. Prerequisite: MATH 110 or MATH 112 with a grade of C or better or appropriate placement test score and other measures as appropriate.

Extension of fundamental algebraic concepts and operations, solutions of linear and quadratic equations, individually and in systems, logarithms, determinants, radical equations, complex numbers, and introduction to functions.

MATH 122 INTERMEDIATE ALGEBRA I (3)
Three lecture hours per week. Prerequisite: MATH 110 or MATH 112 with a grade of C or better or appropriate placement test score and other measures as appropriate.

This course will cover all material from MATH 120. In conjunction with MATH 123, a review of elementary algebra. Extension of fundamental algebraic concepts and operations, solutions of linear and quadratic equations, individually and in systems, logarithms, determinants, radical equations, complex numbers, and introduction to functions.

MATH 123 INTERMEDIATE ALGEBRA II (3)
Three lecture hours per week. Prerequisite: MATH 122 with a grade of C or better or other measures as appropriate.

This course will cover all material from MATH 120. In conjunction with MATH 122, a review of elementary algebra. Extension of fundamental algebraic concepts and operations, solutions of linear and quadratic equations, individually and in systems, logarithms, determinants, radical equations, complex numbers, and introduction to functions.

MATH 130 TRIGONOMETRY (3)
Three lecture hours per week. Prerequisites: MATH 115 and MATH 120 or 123 with grades C or better or appropriate placement test score and other measures as appropriate.

Trigonometric functions of real numbers and angles; solutions of triangles; radian measure; graphs of trigonometric functions, trigonometric equations and identities; inverse trigonometric functions; complex numbers; applications of trigonometry. Transfer credit: CSU (B4). (CAN MATH 8).

MATH 150 MATHEMATICS FOR ELEMENTARY SCHOOL TEACHERS (3)
Three lecture hours and one hour by arrangement per week. Prerequisite: Completion of MATH 120 with a grade of C or better, or appropriate placement test score and other measures as appropriate, or equivalent.

Intended for future elementary school teachers. Topics covered include elementary set theory, numeration, number systems and operations, and elementary number theory, with emphasis on problem solving. This is the first of a three-course math content sequence that most universities now require for teachers. The other two courses are upper-division. Transfer credit: UC; CSU (B4).

MATH 153 MATHEMATICS FOR ELEMENTARY SCHOOL TEACHERS II (3)
Three lecture hours per week. Prerequisite: MATH 150.

Second semester in a two-semester sequence for elementary school teachers. Proportional reasoning (ratio, proportion, rates as functions); statistics (graphs, measures of central tendency, dispersion, normal distribution, sampling methods); probability (event/multistage experiments, odds, expected values); geometric shapes (multi-dimensional figures, congruence transformations, symmetry, tessellations); geometry measurement (systems of measurement, multi-dimensional measurements). Transfer credit: UC; CSU (B4).

MATH 200 PROBABILITY AND STATISTICS (4)
Four lecture hours per week. Prerequisites: MATH 120 or MATH 123 with grade of C or better or two years of high school algebra with grades of C or better with satisfactory placement test score and other measures as appropriate.

Presentation of data, measures of central tendency and dispersion, probability, sampling distributions, non-parametric measures, statistical inference, estimation, regression and correlation, use/misuse of statistics, and selected applications. Transfer credit: UC; CSU (B4). (CAN STAT 2).
MATH 201 QUANTITATIVE REASONING (3)
Three lecture hours per week. Prerequisite: MATH 120 with grade C or better or equivalent; placement test and other measures as appropriate.

This course develops the necessary concepts and skills for reasoning logically and quantitatively. It provides an overview, with historical perspective, of various useful and interesting facets of mathematics. It satisfies the quantitative reasoning requirement. Transfer credit: UC; CSU (B4).

MATH 222 PRECALCULUS (5)
Five lecture hours per week. Prerequisites: Math 130 with a grade of C or better, or recent high school mathematics through trigonometry and appropriate placement test score and other measures as appropriate.

Functional and graphing approach to the concepts and skills necessary as background for success in Calculus. Study of more advanced algebra including logic, theory of equations, translation, rotation and composition approach to graphing, exponential and logarithmic functions, conic sections and a brief review of trigonometry. Transfer credit: UC; CSU (B4). (CAN MATH 16).

NOTE: The prerequisite for MATH 242 is both MATH 130 and MATH 241. Students planning to take both MATH 241 and 242 should take MATH 130 prior to entering the sequence.

MATH 241 APPLIED CALCULUS I (5)
Five lecture hours per week. Prerequisite: Completion of MATH 120 with a grade of C or better or appropriate placement test score, or equivalent.

Basic techniques of differential calculus. Selected topics from analytic geometry, limits, differentiation, and applications of the derivative. Transfer credit: UC; CSU (B4). (CAN MATH 30; MATH 241 + MATH 242 = CAN MATH SEQ D).

MATH 242 APPLIED CALCULUS II (3)
Three lecture hours per week. Prerequisites: MATH 130 and 241 with grade C or better and other measures as appropriate.


MATH 251, 252, 253 CALCULUS WITH ANALYTIC GEOMETRY I, II & III (5, 5, 5)
Five lecture hours per week. (MATH 251 + 252 + 253 = CAN MATH SEQ C).

MATH 251 CALCULUS WITH ANALYTIC GEOMETRY I
Prerequisite: MATH 222 with a grade of C or better or appropriate placement test score and other measures as appropriate.

The study of limits and continuity, the derivatives, applications of derivative, the definite integral, improper integrals, the conic sections. Transfer credit: UC; CSU (B4). (CAN MATH 18; MATH 251 + MATH 252 = CAN MATH SEQ B.)

MATH 252 CALCULUS WITH ANALYTIC GEOMETRY II
Prerequisite: MATH 251 or equivalent with a grade of C or better and other measures as appropriate.

The study of applications of the definite integral, vectors, trigonometric and exponential functions, techniques of integration, polar coordinates and parametric equations. Transfer credit: UC; CSU (B4). (CAN MATH 20; MATH 251 + MATH 252 = CAN MATH SEQ B.)

MATH 253 CALCULUS WITH ANALYTIC GEOMETRY III
Prerequisite: MATH 252 or equivalent with a grade of C or better and other measures as appropriate.

The study of vector valued functions, sequences and series, Taylor's formula, multivariable functions, differential calculus of multivariable functions, and integral calculus of multivariable functions. Line and surface integrals and differential equations will be covered as time permits. Transfer credit: UC; CSU (B4). (CAN MATH 22).

MATH 270 LINEAR ALGEBRA (3)
Three lecture hours per week. Prerequisite: MATH 251 with grade of C, or MATH 222 with grade of A or B and other measures as appropriate.

The study of systems of linear equations, the algebra of matrices, determinants, vector spaces, linear transformations, the algebra of linear transformations with an introduction to dual spaces, and the applications of vectors and matrices to linear equations and linear transformations. Transfer credit: UC; CSU (B4). (CAN MATH 26).

MATH 275 ORDINARY DIFFERENTIAL EQUATIONS (3)
Three lecture hours per week. Prerequisite: MATH 253 or equivalent and other measures as appropriate.

Differential equations and applications of first and higher order with an emphasis on second order. Other topics may include series solutions about regular singular points, Laplace transforms, operator techniques, and numerical methods of approximation. A course suitable for mathematics, physical science, and engineering students after they have completed the Calculus sequence. Transfer credit: UC; CSU (B4). (CAN MATH 24).

MATH 650 MATHEMATICS SUPPLEMENT (.5-2)
(Credit/No Credit.)
Twenty-four lab hours for each .5 unit.

Based on individual needs, students will have directed learning experiences to improve their mathematical skills which will promote mastery of skills necessary for success in college level mathematics and science courses. These supplementary lessons will be arranged and supervised in the Math Assistance Lab of The Learning Center. Class hours are devoted to work on specific content areas as prescribed for the individual student. May be repeated for credit. (Open entry.) (Units do not count toward the Associate Degree.)

MATH 811 FUNDAMENTALS OF MATHEMATICS (1-3 or 3)
(Credit/No Credit or letter grade.)
Three lecture hours per week.

Emphasis on basic skills in mathematics including operations on whole numbers and rational numbers. Applications of these operations will be stressed. (Units do not count toward the Associate Degree.)
MATH 815 BASIC MATH SKILLS LABORATORY (.5-1)  
(Credit/No Credit.)  
One class hour per week plus lab hours by arrangement.  
Designed to make the mysteries of mathematical concepts more clear and understandable. Students will explore the basic concepts of mathematics by using concrete objects, graphs and group discussions. Workshops and by arrangement hours may be included. Should be taken concurrently with MATH 811. May be repeated for credit. (Units do not count toward the Associate Degree.)

MUSIC  
The courses of the Music Department are specifically designed to fill the needs of the beginner in music, those who are seeking a career in the music business, those who are preparing to transfer to a university, those who want to teach music, and those who simply want to enhance their musical enjoyment.  
Students may be asked to audition or test for placement in sequential courses. Courses marked with an asterisk (*) require three hours studio practice per week.

MUS. 100 FUNDAMENTALS OF MUSIC (3)  
Three lecture hours per week.  
Students will learn how to read music notes, rhythms, key signatures, scales and chords. Students will develop listening techniques and explore musical styles and aesthetics. Recital attendance may be required. Appropriate for the general student, this course partially fulfills General Education requirements for the Humanities. Transfer credit: UC; CSU (C1).

MUS. 110 THEORY SEMINAR (3)  
Three lecture hours per week. Prerequisite: MUS. 100 or 301 with grade B or better, or equivalent; must be concurrently enrolled in MUS. 111.  
This course provides students with background, useful information and practice in hearing, writing, and understanding the melodic, rhythmic, harmonic and structural details of music. May be repeated for credit. Transfer credit: UC; CSU (C1).

MUS. 111 THEORY WORKSHOP (2)  
Two lecture hours plus three lab hours per week. Prerequisite: MUS. 100 or 301 with a grade of B or better, or equivalent; must be concurrently enrolled in MUS. 110.  
Extended practice in and application of skills related to all areas of music theory including projects in music making, composing, arranging, playing, ear training, and improvisation. Continues work begun in MUS. 100 or 301 with a broad introduction to integrated musicianship. May be repeated for credit. Transfer credit: UC; CSU (C1).

MUS. 115 MUSIC, ART AND IDEAS (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours per week. Recommended: Eligibility for ENGL 836.  
An understanding of the complementary elements of art, music and literature will be developed to increase the students' awareness of the manner in which creative ideas have been similarly expressed in Western Art. A variety of media consisting of slides, recordings, films, etc. will be used. Also listed as ART 115. Transfer credit: UC; CSU (C1).

MUS. 144 CONCERT ENJOYMENT (2)  
(Credit/No Credit.)  
Three lecture hours per week.  
This course is primarily a music appreciation course in which concerts will be attended on a regular basis. Approximately eight concerts will be seen per semester. The concerts will be selected from a wide range of northern California musical companies, universities, and college productions. One week a concert will be attended; the next week it will be analyzed and critiqued. Group sales will enable ticket prices to be kept at a minimum. Transfer credit: UC; CSU (C1).

MUS. 202 MUSIC APPRECIATION (3)  
Three lecture hours per week. Recommended: Eligibility for ENGL 836.  
Topics addressed in the course include aesthetics, the variety of ensembles, musical form and design, analysis of the creative process, and criteria for the evaluation of musical performances. Lectures are illustrated by live and recorded examples. Recital attendance may be required. Appropriate for the general student, this course partially fulfills General Education requirements for the Humanities. Transfer credit: UC; CSU (C1).  
(CAN MUS 8).

MUS. 204 HISTORY OF WESTERN CLASSICAL MUSIC (3)  
Three lecture hours per week. Recommended: Eligibility for ENGL 836.  
Historical survey of classical music, designed for the general student as well as the music student. Lectures, which may include discussions of Medieval, Renaissance, Baroque, Classical, Romantic, and Modern styles of music, are illustrated with live and recorded examples. Recital attendance may be required. Partially fulfills General Education requirements for the Humanities. Transfer credit: UC; CSU (C1).

MUS. 240 MUSIC OF THE AMERICAS (3)  
Three lecture hours per week. Recommended: Eligibility for ENGL 836.  
Survey of American musical heritage including African, Latin, and European influences on American music forms such as jazz, folk music, and the classical tradition. Partially fulfills General Education requirements for the Humanities. Transfer credit: UC; CSU (C1).

MUS. 250 WORLD MUSIC (3)  
Three lecture hours per week. Recommended: Eligibility for ENGL 836.  
Survey of selected listening and readings from the music of China, Japan, India, Bali, Java, Africa, Native American, Latin America and the Near East. A variety of media, guest speakers/performers will be included. Optional live performance attendance. Transfer credit: UC; CSU (C1).
MUS. 275 HISTORY OF JAZZ (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Understanding and enjoying music by studying the historical development of jazz from a musical and sociological perspective. Topics include discussion of musical elements, vocal and instrumental ensembles, artistic values, and the role of jazz in our culture. Concert attendance may be required. Partially fulfills General Education requirements for the Humanities. Transfer credit: UC; CSU (C1).

MUS. 290 INTRODUCTION TO MIDI (MUSICAL INSTRUMENT DIGITAL INTERFACE) MUSIC (2 or 3)
Two lecture hours per week plus one lab hour per week by arrangement for 2 units or two lecture hours per week plus three lab hours per week by arrangement for 3 units.
Introduction to the use and implementation of MIDI (Musical Instrument Digital Interface) musical instruments, including interfacing with computers and MIDI software. Ability to read music is desirable but not essential. Transfer credit: CSU.

MUS. 301, 302, 303, 304 *PIANO I, II, III, and IV (1 or 2)
Two or three class hours per week.
Students will be auditioned and placed in one of the following classes:

MUS. 301 *PIANO I (1 or 2)
Beginning piano with an emphasis on music reading skills, keyboard harmony, improvisation and keyboard technique. Transfer credit: UC; CSU (C1).

MUS. 302 *PIANO II (1 or 2)
Prerequisite: MUS. 301 or demonstration of equivalent skill.
Continuation of Piano I with increased emphasis on sight-reading, technique and piano literature. Transfer credit: UC; CSU.

MUS. 303 *PIANO III (1 or 2)
Prerequisite: MUS. 302 or demonstration of equivalent skill.
Piano literature from Baroque, Classic, Romantic and 20th century; keyboard harmony and ensemble. Recital performance may be required. Transfer credit: UC; CSU.

MUS. 304 *PIANO IV (1 or 2)
Prerequisite: MUS. 303 or demonstration of equivalent skill.
Piano literature from Baroque, Classic, Romantic and 20th century; keyboard harmony and ensemble. Recital performance may be required. May be repeated for credit. Transfer credit: UC; CSU.

MUS. 350 THE ART OF ROCK, RHYTHM & BLUES I (3)
Three lecture hours per week plus two lab hours per week by arrangement.
A beginning-intermediate performance course for singers, guitarists, bassists, drummers, keyboards and other instrumentalists interested in American contemporary music. Learn to organize a band and negotiate the many aspects of the music business. Students will participate in live performances by arrangement. Transfer credit: UC; CSU.

MUS. 351 THE ART OF ROCK, RHYTHM & BLUES II (3)
Three lecture hours per week plus two lab hours per week by arrangement. Recommended: MUS. 350 or equivalent performance experience.
An intermediate-advanced performance course for singers, guitarists, bassists, drummers, keyboards and other instrumentalists interested in American contemporary music. Learn to organize a band and negotiate the many aspects of the music business. Students will participate in live performances by arrangement. May be repeated for credit. Transfer credit: UC; CSU.

MUS. 377 GUITAR I (2)
(Credit/No Credit or letter grade.)
Three lecture hours per week plus three lab hours per week by arrangement.
Basic guitar instruction. Stringing, tuning, fingering, playing techniques, notation, chords and chord progressions, reading guitar music, strum techniques, fingerpicking, playing simple melodies, and accompaniment. Emphasis on popular and folk music literature. Introduction to music theory for the guitar and voice. Individual and group instruction. Transfer credit: UC; CSU.

MUS. 378 GUITAR II (2)
(Credit/No Credit or letter grade.)
Three lecture hours per week plus three lab hours per week by arrangement.
Continuation of skills begun in MUS 377. Areas covered include barre-chords, CAGED chord and scale theory, blues scales, harmonized major scales, accompaniment techniques, and major and minor scale patterns. Emphasis on popular music literature. Intermediate music theory for the guitar. Individual and group instruction. Transfer credit: UC; CSU.

MUS. 379 GUITAR III (2)
(Credit/No Credit or letter grade.)
Three lecture hours per week plus three lab hours per week by arrangement. Prerequisite: MUS. 377 or demonstrated equivalent skills.
Continuation of skills begun in MUS 379. Areas covered include barre-chords, CAGED chord and scale structure (CAGED), advanced strumming and fingerpicking patterns, advanced theory (scale, secondary dominants, and motif development), improvisation, arpeggios, and reading music. Emphasis on American music literature. Individual and group instruction. Transfer credit: UC; CSU.

MUS. 380 GUITAR IV (2)
(Credit/No Credit or letter grade.)
Two lecture hours and one lab hour per week plus 3 hours by arrangement per week. Prerequisite: MUS. 379 or equivalent.
Continuation of the development of skills begun in MUS 379. Additional material includes motif development, improvising, three notes per string scales, blues techniques, counterpoint, walking bass, modern rhythmic techniques, and other advanced guitar techniques. Individual and group instruction. May be repeated three times for credit. Transfer credit: CSU.
MUS. 383 GUITAR ENSEMBLE I (2)
(Credit/No Credit or letter grade.)
Two lecture hours and one lab hour per week plus 3 hours by arrangement per week. Prerequisite: MUS 378 or equivalent.
A course for guitarists in techniques from Doo-Wop and Rhythm and Blues to Rock in a small ensemble. Students work extensively on these styles and within the application with the intention of public performance. Public performance required. May be repeated three times for credit. Transfer credit: CSU.

MUS. 401, 402, 403, 404 *VOICE I, II, III and IV (2, 2, 2, 2)
Two lecture hours and one lab hour per week plus three hours by arrangement per week. Prerequisites: MUS. 402 – MUS. 401 or placement by audition; MUS. 403 – MUS. 402 or placement by audition; MUS. 404 – MUS. 403 or placement by audition. Transfer credit: UC; CSU.

MUS. 401 *VOICE I
Training in vocal technique, musical expression and performance skills for the beginning singer. Content includes posture, breathing, tone production, music fundamentals, English diction, and performance preparation techniques.

MUS. 402 *VOICE II
Continuation of training in vocal technique, musical expression and performance skills begun in MUS. 401 for the intermediate singer. Content includes refinement of posture, breathing, tone production, and performance preparation techniques. Further studies in music theory and language diction. Emphasis placed on song interpretation and vocal styles.

MUS. 403 *VOICE III
Continuation of training in vocal technique, musical expression and performance skills begun in MUS. 401 and 402 for intermediate/advanced singers. Content includes refinement of posture, breathing, tone production, and performance preparation techniques. Further studies in music theory and language diction. Emphasis placed on song interpretation and vocal styles.

MUS. 404 *VOICE IV
Continuation of training in vocal technique, musical expression and performance skills begun in MUS. 401, 402 and 403 for advanced singers. Content includes refinement of posture, breathing, tone production, and performance preparation techniques. Further studies in music theory and language diction. Emphasis placed on song interpretation and vocal styles. May be repeated for credit.

MUS. 430 CONCERT BAND (1 or 2 or 3)
(Credit/No Credit or letter grade.)
Three or five class hours per week.
Study and performance of music for concert band. Performance is required. May be repeated for credit. Open to all students of the College. Transfer credit: UC; CSU.

MUS. 450 JAZZ BAND (1 or 2 or 3)
Three or five class hours per week.
Career course that includes organization, training, procedures, a ranging, vocals and other phases of dance band work. Performance is required. May be repeated for credit. Transfer credit: UC; CSU.

MUS. 470 COLLEGE CHOIR (2 or 3)
Three or six class hours per week.
Performance of choral music for accompanied and unaccompanied choir. The choir will perform alone and in conjunction with other musical organizations on and off campus. Performance is required. May be repeated for credit. (Open entry.) Transfer credit: UC; CSU (C1).

MUS. 475 JAZZ CHOIR (2)
(Credit/No Credit or letter grade.)
Three class hours per week. Prerequisite: Vocal audition given by the instructor which includes vocalizing, sight-reading, and tonal memory.
Study and performance of contemporary vocal/choral music within the popular and jazz idioms. Students who play bass guitar, string bass, or drums are also welcome to enroll in this course. Performance is required. Transfer credit: UC; CSU (C1).

MUS. 665 SPECIAL TOPICS IN MUSIC PERFORMANCE (.5-2 or 1 or 2)
(Credit/No Credit or letter grade.)
Three lecture hours per week plus three lab hours by arrangement; no lab hours are required for the 1 unit class. Prerequisite: Successful completion of a beginning applied music course or demonstration of equivalent skill in the performance area.
Advanced study in specialized areas of the performing arts. Designed for vocalists, pianists, and instrumentalists, this course provides for extended in-depth study of both performance practice and performance art using selected themes as listed in the class schedule. (Open entry.) Transfer credit: UC; CSU.

NUTRITION
See listings under Family and Consumer Sciences.

OCEANOGRAPHY
OCEN 100 SURVEY OF OCEANOGRAPHY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Discussion of selected topics in oceanography designed to illustrate the scientific method and provide the student with a basic understanding of the nature of the world’s oceans. An introduction to the physical, chemical, biological, and geological aspects of the sea. Transfer credit: UC; CSU (B1).
OCEN 101 OCEANOGRAPHY LABORATORY/FIELD STUDY (1)
Three laboratory/field hours per week. Prerequisite: Completion of or concurrent enrollment in OCEN 100.
Introductory exercises in sediments, waves and sediment transport, bathymetry of ocean basins, materials of ocean crust and sea floor, ocean currents, tides, estuaries, physical and chemical properties of seawater, and forms and diversity of marine life. Field trips included. Transfer credit: UC; CSU (B3).

OCEN 108 FIELD STUDIES IN OCEANOGRAPHY (1)
(Credit/No Credit or letter grade.)
Three field hours per week. Prerequisite: Concurrent enrollment in or completion of OCEN 100.
A variety of field trips to observe and participate in oceanographic research and reconnaissance. Students experience and expand upon lecture topics that illustrate and enhance an understanding of ocean science. Transfer credit: UC; CSU.

OFFICE ADMINISTRATION
See listings under Computer Applications & Office Technology.

PARALEGAL STUDIES

LEGL 240 INTRODUCTION TO LAW (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
The study of law, the legal profession and the court system. Emphasis is on the roles and relationships of workers in the American legal system. Some attention to administrative agency justice and to recent developments in legal services, law-related management, and new technology. Recommended for students considering work in law-related occupations. Transfer credit: CSU.

LEGL 245 LEGAL OPERATIONS (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
This course is designed to expose students to the variety of law-related job opportunities and many of the skills necessary to perform those jobs, such as legal analysis, terminology, interviewing, investigation, litigation, law office management, and informal and formal advocacy before administrative agencies. Transfer credit: CSU.

LEGL 250 LEGAL RESEARCH (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
The course is designed to provide students with a working knowledge of major resources in the law library. Includes practice in finding and interpreting case law, statutes and administrative regulations. Student is given experience in using digests, looseleaf services, citators, encyclopedias, treatises and legal periodicals. Transfer credit: CSU.

LEGL 252 PRINCIPLES OF CIVIL AND ADMINISTRATIVE PROCESS (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
An in-depth study of case processing in civil and administrative matters. An emphasis on the systems approach and origin-to-disposition studies of typical civil and administrative matters. Especially helpful for students enrolled in the courts option, the legal secretary, or legal assistant programs. Transfer credit: CSU.

LEGL 260 ADVANCED LEGAL RESEARCH AND WRITING (3)
Three lecture hours per week. Prerequisite: LEGL 250.
Build legal research and writing skills by preparing a series of projects, including documents for real cases. Students will polish writing skills so that they can prepare professional high quality documents and effectively communicate legal ideas. Transfer credit: CSU.

LEGL 265 LABOR LAW AND COLLECTIVE BARGAINING (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
A survey course examining the role of labor in the American community. Specific course content will include the history of the labor movement, administration of labor unions, contemporary labor law, and an analysis of the collective bargaining process. Scope is expanded to include public sector labor relations as well as its traditional private sector counterpart. Transfer credit: CSU.

LEGL 266 PROBATES, ESTATES, AND TRUSTS (1 or 3)
Three lecture hours per week. Recommended: One or more law related courses completed or taken concurrently and eligibility for ENGL 836.
A study of the fundamental principles of the law of wills and trusts, the administration of estates, and gift, inheritance and estate taxes. Transfer credit: CSU.

LEGL 304 CONCEPTS OF CRIMINAL LAW (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Historical development and philosophy of criminal law and constitutional provisions. Special emphasis on legal definitions, the classifications of crime and their application to the administration of justice system. Study of case law, methodology, and concepts of law as a social force. Also listed as ADMJ 104. Transfer credit: CSU.

LEGL 305 JUDICIAL PROCESS IN CALIFORNIA (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
An overview of the federal court system, the California courts, and administrative agency tribunals. Careful examination of roles and relationships of the courthouse work group. Also listed as ADMJ 205. Transfer credit: CSU.
LEGL 306 LEGAL ASPECTS OF EVIDENCE (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Origin, development, philosophy and constitutional basis of evidence; constitutional and procedural considerations affecting arrest, search and seizure; kinds and degrees of evidence and rules governing admissibility; judicial decisions and interpreting individual rights and case studies. Also listed as ADMJ 106. Transfer credit: CSU.

LEGL 320 CRIMINAL INVESTIGATION (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
A course designed for introductory and in-service Administration of Justice students to provide orientation to general and specific aspects of crimes and detection. The course will also cover crime scene searches and suspect apprehension. Also listed as ADMJ 120. Transfer credit: CSU.

LEGL 443 LAW OFFICE PROCEDURES (1-3)
A total of sixteen lecture hours plus twenty-four lab hours by arrangement per unit. Prerequisites: CAOT 212 or 214 and BUS 400 or equivalent skills. Recommended: Eligibility for ENGL 836.
Intensive training in procedures applicable to secretarial duties in law offices. Emphasis on legal terminology, legal documents and correspondence, dictation, and transcription. Also listed as BUS. 443. Transfer credit: CSU.

PHILOSOPHY

PHIL 100 INTRODUCTION TO PHILOSOPHY (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 100 or 105.
A survey of philosophical views on fundamental questions concerning consciousness, reality, God, knowledge, free will, moral values, and political ideals. Incorporates an introduction to the methods of logic and critical thinking. Transfer credit: UC; CSU (C2). (CAN PHIL 2.)

PHIL 103 CRITICAL THINKING (3)
(Credit/No Credit or letter grade.)
Three lecture hours and one lab hour by arrangement per week. Recommended: Eligibility for ENGL 836.
An informal logic and language course that develops general learning skills, aids to understanding, creative problem-solving, effective communication, and processes of evaluation that are helpful to other areas of study. Transfer credit: UC; CSU (A3).

PHIL 109 CRITICAL THINKING AND WRITING (3)
Three lecture hours and one lab hour by arrangement per week. Prerequisite: ENGL 100 or ENGL 105 with a grade of C or better.
Designed to develop critical thinking and writing skills. Presents techniques for analyzing, constructing and reconstructing deductive and inductive arguments as used in the social and natural sciences. Develops the ability to create and refine logically rigorous arguments in essay form, with particular emphasis on advanced techniques of writing. Transfer credit: UC; CSU (A3).

PHIL 160 HISTORY OF WESTERN PHILOSOPHY:
ANCIENT AND MEDIEVAL (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
The history of ancient philosophy, the early Greek Philosopher through the Medieval Period. Special emphasis on the Pre-Socratics, Plato, Aristotle, Augustine, and Aquinas. Topics include philosophy and religion, myth, science, and society. Transfer: UC; CSU (C2).

PHIL 175 HISTORY OF WESTERN PHILOSOPHY:
16TH-18TH CENTURY (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 100.
The history of Western Philosophy from Descartes through Kant, set in the context of the scientific revolution, the Protestant Reformation, and the emergence of modern political institutions. Specifics include Erasmus, Bacon, Pascal, Hobbes, Spinoza, Locke, Leibniz, Berkeley, Hume and Rousseau. Transfer credit: UC; CSU (C2).

PHIL 200 INTRODUCTION TO LOGIC (3)
Three lecture hours per week. Recommended: Completion of ENGL 836.
Introduction to symbolic logic which concentrates on translating English arguments into symbolic language and deriving a conclusion from the premises. Course covers sentence logic and the beginning of quantifier logic. Teaches logical reasoning techniques which are useful in all areas. Transfer credit: UC; CSU (A3). (CAN PHIL 6.)

PHIL 240 INTRODUCTION TO ETHICS (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 100 or 105.
A critical examination of philosophical views about ethics including accounts of human nature and human potential; theories of value, rightness and justice; ideals of character, personal aims, action, ways of living, and other topics. Contemporary moral issues will be explored in depth. Transfer credit: UC; CSU (C2). (CAN PHIL 4.)

PHIL 300 INTRODUCTION TO WORLD RELIGIONS (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 100 or 105.
An exploration of the religions of the world, their origin, history, beliefs, practices, art, and rituals. Includes varieties of Hinduism, Buddhism, Judaism, Christianity, Islam, and other selected traditions. Transfer credit: UC; CSU (C2).

PHIL 320 ASIAN PHILOSOPHY (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 100.
A general survey of the philosophical developments in India, China and Japan. Major philosophical theories of these countries will be compared and evaluated. The philosophical impact on Asian existence, human destiny, ethical and metaphysical views will be examined. Course includes an introduction to the challenges of comparative study. Transfer credit: UC; CSU (C2).
The Physical Education courses listed below are for men or women or are coeducational as shown in parentheses following the number of the course (M, W, C).

In order to raise skill levels, and on the advice of the instructor, some physical education classes may be taken up to four times for credit. Repeated course units might not be accepted for transfer at some four-year institutions.

**COMB 301, 302 (C) WRESTLING, BEGINNING AND INTERMEDIATE (.5 or 1)**
(Credit/No Credit or letter grade.)
One and one half or three class hours per week. Prerequisites: Intermediate = Beginning Wrestling or equivalent.

**Beginning** – Instruction in rules and scoring systems. Instruction in take-downs, escapes, reversals, break-downs, rides, and pinning combinations. Transfer credit: UC; CSU (E2).

**Intermediate** – Competition in dual competition and a class tournament. May be repeated for credit. Transfer credit: UC; CSU (E2).

**COMB 401 (C) SELF DEFENSE (.5 or 1)**
(Credit/No Credit or letter grade.)
One and one half or three class hours per week.

A course designed to gain knowledge about basic self defense. Areas covered will be mental preparation, avoidance of situations conducive to assault, punching, kicking, pressure points and defenses. Both non-violent and violent defenses will be dealt with. May be repeated for credit. Transfer credit: UC; CSU (E2).

**COMB 404 (C) BEGINNING SHOTOKAN KARATE (.5 or 1)**
(Credit/No Credit or letter grade.)
One and one half or three class hours and one hour by arrangement per week.

This course will introduce the student to the skills and techniques of the Japanese art of Shotokan Karate. Emphasis will be placed on physical conditioning, basic strikes and blocks, forms (kata), sparring techniques, self-discipline and self-development. Transfer credit: UC; CSU (E2).

**COMB 405 (C) INTERMEDIATE AND ADVANCED SHOTOKAN KARATE (.5 or 1)**
(Credit/No Credit or letter grade.)
One and one half or three class hours and one hour by arrangement per week. Prerequisite: COMB 404.

This course will reinforce the basic skills and techniques of the Japanese art of Shotokan Karate. Intermediate and advanced techniques will be introduced as appropriate. Transfer credit: UC; CSU (E2).

**DANC 101 (C) BEGINNING DANCE (.5 or 1)**
(Credit/No Credit or letter grade.)
One and one half or three class hours per week.

Instruction and practice in beginning movement skills, rhythmic structure, qualities of movement, spatial design, and an appreciation of dance. Dance styles are emphasized in the creation of group and individual compositions. May be repeated for credit. Transfer credit: UC; CSU (E2, C1).

**DANC 105 (C) DANCE AND WELLNESS (.5 or 1)**
(Credit/No Credit or letter grade.)
One and one half or three class hours per week.

This course is designed to introduce students with physical limitations due to injury, illness or physical disability to the fundamentals of dance. Course emphasis is tailored to the development of individuals’ creative potential. Students will compose final group projects. Opportunities may include participation in dances choreographed by the instructor. May be repeated for credit. Transfer credit: UC; CSU (E2).

**DANC 110 (C) MODERN DANCE (.5 or 1)**
(Credit/No Credit or letter grade.)
One and one half or three class hours and one hour by arrangement per week.

Warm-up and floor movement with emphasis on proper techniques, creativity, style and self expression. Students will learn short dance phrases and will be expected to choreograph and perform a modern dance by the end of the semester. May be repeated for credit. Transfer credit: UC; CSU (E2, C1).

**DANC 130 (C) JAZZ DANCE (.5 or 1)**
(Credit/No Credit or letter grade.)
One and one half or three class hours per week.

Jazz dance warm-up and introduction to various movement forms with emphasis on rhythm, style, and proper techniques. Students will learn a variety of jazz phrases and will be expected to choreograph and perform a jazz dance at the end of the semester. May be repeated for credit. Transfer credit: UC; CSU (E2, C1).

**DANC 140 (C) BALLET (.5 or 1)**
(Credit/No Credit or letter grade.)
One and one half or three class hours and one hour by arrangement per week.

Basic barre, floor technique and movement fundamentals with emphasis on body control, form and special patterns. Students will learn a variety of dance phrases and will be expected to perform a ballet dance at the end of the semester. May be repeated for credit. Transfer credit: UC; CSU (E2, C1).

**DANC 330 (C) CREATIVE DANCE (.5 or 1)**
(Credit/No Credit or letter grade.)
One and one half or three class hours per week.

Introduction to principles of dance composition through individual experiences, studies in use of varied stimuli, processes of dance construction and simple compositional forms. May be repeated for credit. Transfer credit: UC; CSU (E2, C1).
DANC 350 (C) AEROBIC DANCE (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours and one hour by arrangement per week.  
Vigorous steps, stretches and toning movements that come from many sources, folk dance, jazz dance, ballet, modern dance, rock, etc., are choreographed to various rhythms to compose the Aerobic Dance class. May be repeated for credit. Transfer credit: UC; CSU (E2).

DANC 390 (C) DANCE COMPOSITION/THEORY/CHOREOGRAPHY (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours per week.  
This course is designed to introduce the student to aesthetic, philosophical and theoretical concepts regarding composition. Designed for both the serious dance student as well as students interested in exploring a new art form. May be repeated for credit. Transfer credit: UC; CSU.

DANC 400 (C) DANCE PRODUCTION (.5-2)  
(Credit/No Credit or letter grade.)  
One and one half to six class hours and two to five hours by arrangement per week.  
Theory and practice in dance composition, evaluation and program production. The participant will become familiar with all types of choreography principles and stage production. Includes emphasis on a variety of dance forms from traditional Western European to ethnic. Rehearsal times will be arranged with the instructor. (Open entry.) May be repeated for credit. Transfer credit: UC; CSU (C1, E2).

DANC 440 (C) PRINCIPLES OF DANCE COMPANY/ARTS PROGRAM MANAGEMENT (.5-2)  
(Credit/No Credit or letter grade.)  
One and one half to six class hours and two to five hours by arrangement per week.  
This course includes all phases of arts event planning: creating an event calendar; performance themes and standards; funding and budgeting; and promotion and publicity. (Open entry.) Transfer credit: CSU.

DANC 450 (C) INTERMEDIATE/ADVANCED DANCE PRODUCTION (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours and two hours by arrangement per week. Prerequisite: DANC 400 or equivalent.  
This course is designed for the intermediate/advanced student to improve technical dance training and performance skills. Aesthetic, philosophical and theoretical concepts regarding performing will be covered. Students will be required to perform in a dance choreographed by advanced student or faculty. Transfer credit: CSU (E2).

DANC 665 (C) SELECTED TOPICS: DANCE IN CULTURAL CONTEXT (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours per week.  
This course is designed to introduce students to the fundamentals of different styles of dance from selected cultures. It is designed for the serious dancer interested in learning ethnic dance forms as well as the general student. In-depth study of selected dance forms such as Flamenco, Congolese, and Capoeira. May be repeated for credit. Transfer credit: UC; CSU (E2).

FITN 110 (C) ADULT CONDITIONING (.5-1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours and one hour by arrangement per week.  
Designed to introduce students to various modes of physical activities such as stretching, walking and jogging, weight training and informal games for the development of their personal fitness programs. May be repeated for credit. Transfer credit: UC; CSU (E2).

FITN 116 (C) BODY CONDITIONING (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours per week.  
Instruction and personal fitness program development. Emphasis on various stretching and flexibility methods, the design of individual strength programs, and latest information of scientific application to developing aerobic fitness and wellness. May be repeated for credit. Transfer credit: UC; CSU (E2).

FITN 160 (W) WOMEN’S CONDITIONING (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours and one hour by arrangement per week.  
Study and practice of movements to develop or improve individual physical fitness. Exercises range from mild to vigorous. Individual fitness programs will be developed. Endurance activities are stressed. Emphasis on understanding the needs and benefits of regular and continuing exercise. May be repeated for credit. Transfer credit: UC; CSU (E2).

FITN 201, 202 (M) MEN’S WEIGHT CONDITIONING BEGINNING AND INTERMEDIATE (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours and one hour by arrangement per week.  
Beginning – Instruction and practice in the elementary lifts and procedures of weight training. Emphasis on form and techniques, safety-procedures and strength values of weight lifting using barbells, weight machines and similar equipment. Transfer credit: UC; CSU (E2).  
Intermediate – Specialization and development of individual programs. May be repeated for credit. Transfer credit: UC; CSU (E2).
FITN 205 (C) WEIGHT CONDITIONING (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours and one hour by arrange-  
ment per week.  

Individual weight training program instruction and practice to  
include elementary to advanced exercises and procedures.  
Physiology of exercise, nutrition, safety, basic to advanced  
program development for individual workout sequences and  
goal setting will be emphasized. Progressive skills in various  
weight conditioning exercises and opportunities to specialize in  
specific individual physiological concerns. Use of various equip-  
ment and techniques for the development of overall strength,  
endurance, flexibility and improvement of body composition.  
Coeducational format. May be repeated for credit. Transfer  
credit: UC; CSU (E2).

FITN 210 (W) WOMEN'S INDIVIDUAL WEIGHT  
CONDITIONING (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours and one hour by arrange-  
ment per week.  

Vigorous weight training in an individual program of exercises  
designed to build specific strength with regard to each student's  
goal. May be repeated for credit. Transfer credit: UC; CSU (E2).

FITN 301 (C) SPINNING®  
(Credit/No Credit or letter grade.)  
One and one half or three class hours per week.  

Spinning is an aerobic exercise performed on a stationary  
racing bicycle and done to high cadence music. An exciting and  
fast paced workout, open to anyone who is interested in losing  
body weight or improving their aerobic conditioning. May be  
repeated for credit. Transfer: CSU.

FITN 303 (C) TRAIL HIKING (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours and one hour by arrange-  
ment per week.  

Designed to educate students in the development of cardio-  
vascular fitness and healthy lifestyle through the media of hiking.  
An indepth experience on styles, various hiking trails, equipment  
and techniques, as well as the development and evaluation of  
fitness through hiking. May be repeated for credit. Transfer  
credit: UC; CSU (E2).

FITN 304 (C) WALKING FITNESS (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours and one hour by arrange-  
ment per week. Prerequisite: Completion of the first (pre) tests of  
the Physical Education Evaluation Program.  

This course will help students gain an understanding of  
cardiovascular fitness through walking. Students will understand  
and evaluate their individual levels of cardiovascular fitness and  
develop a personal walking program. May be repeated for  
credit. Transfer credit: UC; CSU (E2).

FITN 305 (C) CARDIOVASCULAR DEVELOPMENT –  
RUNNING EMPHASIS, BEGINNING TO ADVANCED (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours and one hour by arrange-  
ment per week.  

Instruction in methods to achieve total fitness through cardio-  
vascular activities with emphasis on running. The advanced  
student (any student repeating the course) must submit an  
objective for the semester related to his/her running. May be  
repeated for credit. Transfer credit: UC; CSU (E2).

FITN 332 (C) STRETCHING AND FLEXIBILITY (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours and one hour by arrange-  
ment per week.  

This course is designed to help condition and tone the body,  
to increase circulation and flexibility, and to improve total body  
functions through the use of proper breathing techniques,  
stretching and selected postures. This course will also help  
decrease the level of stress through meditation and relaxation  
exercises. May be repeated for credit. Transfer credit: UC;  
CSU (E2).

FITN 334 (C) YOGA (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours and one hour by arrange-  
ment per week.  

A course designed to educate the student in Hatha Yoga. A  
fitness course using yoga postures to increase flexibility,  
strength and endurance; improve balance, posture and breath-  
ning; and teach relaxation techniques. This course is appropriate  
for all ages and abilities. May be repeated for credit. Transfer  
credit: UC; CSU (E2).

FITN 335 (C) PILATES (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours per week.  

Pilates method exercise is a form of isometric exercise that  
simultaneously stretches, strengthens, tones and aligns the  
body while eliminating excess tension and strain on the joints.  
Pilates is designed to improve posture, coordination and balance;  
buid strength; increase flexibility and agility; and provide  
a refreshing mind-body workout. Transfer credit: CSU (E2).

FITN 349 (C) FUNCTIONAL ADAPTED FITNESS  
ASSESSMENT (.5-1)  
(Credit/No Credit or letter grade.)  
One and one half to three class hours per week. Corequisite:  
Concurrent enrollment in FITN 350 and physician’s approval.  

Individual and small group assessment and participation in  
functional fitness emphasizing flexibility, strength, balance,  
coordination and general mobility. (Open entry) May be repeat-  
ed for credit. Transfer credit: UC; CSU (E2).

FITN 350 (C) ADAPTIVE PHYSICAL EDUCATION (.5-1)  
(Credit/No Credit or letter grade.)  
One and one half to three class hours per week. Prerequisite:  
Physician’s recommendation or
INDV 165 (C) GOLF: SHORT GAME (.5 or 1)
(Credit/No Credit or letter grade.)
One and one half or three class hours per week.
Designed to improve the skills of pitching, chipping, putting and greenside sand play. Class will be held both at a practice facility and at a nine-hole golf course for practical application of skills. May be repeated three times for credit. Transfer credit: UC; CSU (E2).

INDV 167 (C) GOLF COURSE STRATEGIES (1)
(Credit/No Credit or letter grade.)
Three class hours per week. Recommended: INDV 160 or equivalent.
Designed for students who have established skills in golf who want to play competitively and develop a handicap with the Northern California Golf Association. Students will participate in structured play and learn numerous aspects of golf strategy, scoring and golf course management. May be repeated three times for credit. Transfer credit: UC; CSU (E2).

INDV 251 (C) BEGINNING TENNIS (.5 or 1)
(Credit/No Credit or letter grade.)
One and one half or three class hours and one hour by arrangement per week.
Instruction in the fundamental skills of the service, forehand and the backhand strokes; court strategy and the rules of play; testing program in all tennis skills and rules. Includes use of automatic ball machine. Transfer credit: UC; CSU (E2).

INDV 253, 255 (C) TENNIS, INTERMEDIATE AND ADVANCED (.5 or 1)
(Credit/No Credit or letter grade.)
One and one half or three class hours and one hour by arrangement per week.
Continued instruction in the fundamental skills of tennis. Emphasis will be placed on singles and doubles strategy, including the essence of net play. Forehand, backhand, and serve will be emphasized as offensive and defensive weapons. Competition will be included and tournaments will be held. INDV 255 may be repeated for credit. Transfer credit: UC; CSU (E2); INDV 253 – UC; CSU (E2).

P.E. 100 (C) NATURE AND SCOPE OF PHYSICAL EDUCATION (2)
Two lecture hours per week and assigned lab meetings.
Designed for students with a major or minor in physical education. Examination of academic and professional requirements for physical education preparation and of the development of aims, objectives, and philosophies. Study of the history of physical education as it relates to current developments and programs. A parallel course to Introduction to Physical Education, which is offered at four-year institutions. Transfer credit: UC; CSU.
P.E. 130 (C) SPORTS OFFICIATING (2)
Two lecture hours per week.
A course designed to develop an awareness of officiating in general, dealing with philosophy, dress, equipment, relationships with players, coaches, etc. Transfer credit: CSU.

P.E. 201 SPORTS MEDICINE: THE LOWER EXTREMITIES (3)
(Credit/No Credit or letter grade.)
Two lecture hours and three lab hours per week.
A multi-disciplinary educational experience applying the principles of anatomy, physiology, pathology and biomechanics to the prevention and care of injuries of the lower extremities. Instruction emphasizes injury prevention, emergency care, rehabilitation, taping and bracing for these injuries. Additional hands-on experience is available through the Sports Medicine Clinical Internship course. Transfer credit: CSU.

P.E. 202 SPORTS MEDICINE: THE UPPER EXTREMITIES AND SPINE (3)
(Credit/No Credit or letter grade.)
Two lecture hours and three lab hours per week.
A multi-disciplinary educational experience applying the principles of anatomy, physiology, pathology and biomechanics to the prevention and care of injuries of the upper extremities and spine. Instruction emphasizes injury prevention, emergency care, rehabilitation, taping and bracing for these injuries. Additional hands-on experience is available through the Sports Medicine Clinical Internship course. Transfer credit: CSU.

P.E. 203 SPORTS MEDICINE CLINICAL INTERNSHIP (.5-4)
(Credit/No Credit or letter grade.)
Thirty two hours per .5 unit. Prerequisite: Completion of, or concurrent enrollment in, either P.E. 201 or P.E. 202, or equivalent.
An in-depth practical learning experience within the sports medicine program. Students assist in injury prevention, emergency care, rehabilitation, and taping and bracing for varsity athletes under the supervision of the certified athletic trainer. Clinical hours are designed to assist in developing the skills required for NATA competencies. May be repeated three times for credit. (Open entry.) Transfer credit: CSU.

PE 801 (C) SPORTS INJURY REHABILITATION (0)
One to six hours per week.
Designed to assist student athletes who have sustained an athletic injury in the rehabilitation of that injury toward the goal of return to play. (Open entry/open exit.) May be repeated.

TEAM 100 (M) MEN’S BASEBALL (2)
(Credit/No Credit or letter grade.)
Ten class hours and two hours by arrangement per week.
This class will allow the student to develop high skill in the game of baseball. Through extended drills, game situations and plays, strategy will be learned. Physical conditioning for baseball will be emphasized. May be repeated for credit. Transfer credit: UC; CSU (E2).

TEAM 111, 115 (C) BASKETBALL, BEGINNING AND ADVANCED (.5 or 1)
(Credit/No Credit or letter grade.)
One and one half or three class hours and one hour by arrangement per week. Prerequisite: Advanced – Beginning Basketball or equivalent.

BEGINNING – Instruction in the rules, strategies and fundamental skills of basketball. Includes round-robin play during the last half of the semester. Transfer credit: UC; CSU (E2).

ADVANCED – Advanced instruction in the fundamentals of basketball. Specifically the details of the game will be investigated. Team play will be accented with special emphasis given to developing offenses and attacking defenses. May be repeated for credit. Transfer credit: UC; CSU (E2).

TEAM 120 (C) TEAM SPORTS: SOFTBALL/FLAG FOOTBALL (.5 or 1)
(Credit/No Credit or letter grade.)
One and one half or three class hours per week.
Class will cover the following sports: flag football and softball. Instruction in basic skills, rules and strategies of each selected sport. Round-robin competition. May be repeated for credit. Transfer credit: UC; CSU (E2).

TEAM 125 (C) NON-TRADITIONAL OUTDOOR GAMES (.5 or 1)
(Credit/No Credit or letter grade.)
One and one half or three class hours per week.
Introduces students to rules, strategies and skills of high-energy outdoor games. Games will include Ultimate Frisbee, Speedball, Capture the Flag, and other non-traditional team activities. Recommended for education and recreation/physical education majors, and for students interested in a high-energy activity course. May be repeated for credit. Transfer credit: UC; CSU (E2).

TEAM 132 (C) FLAG FOOTBALL (.5 or 1)
(Credit/No Credit or letter grade.)
One and one half or three class hours per week.
This course will provide instruction in basic skills of flag football, including catching, running with the ball, strategies, blocking, and rules of the game. Drills and competition will be used. May be repeated for credit. Transfer credit: UC; CSU.

TEAM 141, 145 (C) SOCCER, BEGINNING AND ADVANCED (.5 or 1)
(Credit/No Credit or letter grade.)
One and one half or three class hours per week. Prerequisite: Advanced – Beginning Soccer or equivalent.

BEGINNING – Instruction and practice in fundamentals of individual play. Games and round-robin play; testing program. Transfer credit: UC; CSU (E2).

ADVANCED – Instruction in offensive and defensive play; specific positions. May be repeated for credit. Transfer credit: UC; CSU (E2).
TEAM 146 (M) MEN’S SOCCER THEORY (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours per week. Prerequisite:  
TEAM 141, 145 or 148, or competitive experience, or equivalent.  

Designed for student athletes to pursue knowledge about the  
history, philosophy, strategies, techniques, and instruction in  
soccer. May be repeated three times for credit. Transfer credit:  
UC; CSU (E2).

TEAM 148 (C) INDOOR SOCCER (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours per week. Prerequisite:  
TEAM 141 or demonstrated proficiency in soccer.  

Indoor soccer at an intermediate level of play. Includes indi-  
vidual and group drills, skill development, rules of the game, and  
team play through round robin competition. May be repeated for  
credit. Transfer credit: UC; CSU (E2).

TEAM 149 (W) WOMEN’S SOCCER THEORY (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours per week. Prerequisite:  
TEAM 141 or 145, or competitive experience, or equivalent.  

Designed for student athletes to pursue knowledge about the  
history, philosophy, strategies, techniques, and instruction in  
soccer. May be repeated three times for credit. Transfer credit:  
UC; CSU (E2).

TEAM 150 (C) SOFTBALL (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours per week.  

Instruction in the sport of softball with special emphasis on  
the game of one pitch. This course will emphasize speed as  
used in the game of one pitch. It will involve developing skills  
needed in softball fielding, base running, strategy and batting.  
Pitching will not be emphasized. May be repeated for credit.  
Transfer credit: UC; CSU (E2).

TEAM 171, 173, 175 (C) VOLLEYBALL, BEGINNING,  
INTERMEDIATE AND  
ADVANCED (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours per week. Prerequisite:  
Intermediate – Beginning Volleyball or equivalent; Advanced –  
Intermediate Volleyball or equivalent.  

Beginning – Instruction and practice in the fundamentals of  
volleyball; team competition; testing program in skills and rules.  
Transfer credit: UC; CSU (E2).  

Intermediate – Skill development with an emphasis on funda-  
damentals, rules, and strategies of team and tournament play.  
Instruction and practice in intermediate skills for team competi-  
tion. Transfer credit: UC; CSU (E2).  

Advanced – Emphasis on team play and strategy; tournament  
play. May be repeated for credit. Transfer credit: UC;  
CSU (E2).

TEAM 176 (W) VOLLEYBALL THEORY (.5 or 1)  
(Credit/No Credit or letter grade.)  
One and one half or three class hours per week. Prerequisite:  
TEAM 171, or competitive experience, or equivalent.  

Designed for potential student athletes to pursue advanced  
knowledge in the philosophy, strategies, techniques, and instruc-  
tion in the competitive game of volleyball. May be repeated three  
times for credit. Transfer credit: UC; CSU (E2).

TEAM 179 (C) TOURNAMENT VOLLEYBALL (.5 or 1)  
(Credit/No Credit.)  
One and one half or three class hours per week. Prerequisite:  
TEAM 171 or equivalent.  

Geared toward intermediate and advanced level volleyball  
players, this course emphasizes team play in a tournament set-  
ting. Course will include an introduction to, and use of, different  
offensive and defensive systems. Tournament play will include  
2-, 3-, 4- and 6-person team play using international rules.  
Transfer: UC; CSU (E2).

VARSITY SPORTS  
Participation in varsity sports is limited to those who possess  
the necessary skill level to compete in intercollegiate athletics.  
Competition takes place against colleges of the Coast Confer-  
ence and other northern and southern California Community  
Colleges. Athletes must be enrolled in 12 units during their first  
semester of competition (9 of which must be academic). Student-  
athletes must maintain a 2.0 grade point average and have  
passed a cumulative 24 units (18 of which must be academic) to  
qualify for their second season of the same sport. Student-ath-  
letes can only compete in two years of the same sport. Participants  
must pass a physical examination prior to being released to compete. See Athletic Director for more information.

VARS 100 (M) MEN’S VARSITY BASEBALL (2)  
Ten hours per week.  

Intercollegiate varsity baseball competition in the Coast  
Conference tournaments and with other community colleges  
in the area. (Open entry). May be repeated for credit. Transfer  
credit: UC; CSU (E2).

VARS 110 (M) MEN’S VARSITY BASKETBALL (2)  
Ten hours per week.  

Intercollegiate varsity basketball competition in the Coast  
Conference and participation in regional tournaments. (Open  
entry). May be repeated for credit. Transfer credit: UC; CSU (E2).

VARS 120 (M) MEN’S VARSITY CROSS COUNTRY (2)  
Ten hours per week.  

Cross country and distance running competition on an inter-  
collegiate level in the Coast Conference; participation in  
Conference meets, invitational meets, Northern California  
meets, and State Championship meets for those who qualify.  
(Open entry) May be repeated for credit. Transfer credit: UC;  
CSU (E2).
VARS 150 (M) MEN'S VARSITY SOCCER (2)
Ten hours per week.
Intercollegiate soccer competition with Northern California community colleges and State Universities. (Open entry.) May be repeated for credit. Transfer credit: UC; CSU (E2).

VARS 200 (C) VARSITY WRESTLING (2)
Ten hours per week.
Intercollegiate competition in dual matches in the Coast Conference; competition in several regional wrestling tournaments each year including Coast Conference matches, Northern California matches, and the State Championships. (Open entry.) May be repeated for credit. Transfer credit: UC; CSU (E2).

VARS 310 (W) WOMEN'S VARSITY CROSS COUNTRY (2)
Ten hours per week.
Cross country and distance running competition on an intercollegiate level in the Coast Conference; participation in Conference meets, invitational meets, Northern California meets, and State Championship meets for those who qualify. (Open entry.) May be repeated for credit. Transfer credit: UC; CSU (E2).

VARS 340 (W) WOMEN'S VARSITY VOLLEYBALL (2)
Ten hours per week.
Intercollegiate Varsity Volleyball for women includes competition with the other community colleges from the Northern California area. (Open entry.) May be repeated for credit. Transfer credit: UC; CSU (E2).

VARS 350 (W) WOMEN'S VARSITY BADMINTON (2)
Ten hours per week.
Intercollegiate Varsity Badminton competition with Northern California community colleges. Participation in the Coast Conference and regional tournaments. (Open entry.) May be repeated for credit. Transfer credit: UC; CSU.

VARS 360 (W) WOMEN'S VARSITY SOCCER (2)
Ten hours per week.
Intercollegiate Varsity Soccer competition with Northern California community colleges. Participation in the Coast Conference and regional tournaments. (Open entry.) May be repeated for credit. Transfer credit: UC; CSU.

PHYSICS

PHYS 210, 220 GENERAL PHYSICS I AND II (4, 4)
Three lecture hours and three lab hours per week. Prerequisites: PHYS 210 – Intermediate algebra and plane geometry. Recommended: Completion of MATH 130, Trigonometry. PHYS 220 – Satisfactory completion of 210.
Lectures, with experimental demonstrations and lab, covering mechanics, heat and sound in the first semester; magnetism, electricity, light and modern developments in the second semester. Designed for students majoring in some field of letters and science; required of those planning to enter medicine, dentistry, pharmacy, optometry, agriculture or forestry. Transfer credit: UC; CSU (B1, B3). (PHYS 210 = CAN PHYS 2; PHYS 220 = CAN PHYS 4; PHYS 210 + 220 = CAN PHYS SEQ A).

PHYS 211 GENERAL PHYSICS I –
CALCULUS SUPPLEMENT (1)
One lecture hour per week. Prerequisite: Completion of MATH 241 or MATH 251, completion of, or concurrent enrollment in, MATH 242 or MATH 252, and completion of, or concurrent enrollment in, PHYS 210.
Application of calculus to topics in PHYS 210 such as work done by a variable force, hydrostatic pressure of compressible fluids and heat conduction. Required of some premedical, biology, and architecture students. Transfer credit: UC; CSU.

PHYS 221 GENERAL PHYSICS II –
CALCULUS SUPPLEMENT (1)
One class hour per week. Prerequisite: Completion of, or concurrent enrollment in, MATH 242 or MATH 252 and completion of, or concurrent enrollment in, PHYS 220.
Application of calculus to topics in PHYS 220 such as electric fields of uniform charge distributions, Ampère's Law and Fermat's Principle. Required of some premedical, biology, and architecture students. Transfer credit: UC; CSU.

PHYS 250, 260, 270 PHYSICS WITH
CALCULUS I, II, III (4, 4, 4)
Three lecture hours, one recitation hour, and two lab hours per week. Prerequisite: PHYS 250 – MATH 251 and concurrent enrollment in MATH 252; PHYS 260 or 270 – PHYS 250.
This three-semester physics sequence is designed to give the student majoring in engineering, physics, or chemistry a thorough foundation in the fundamentals of physics.

PHYS 250 PHYSICS WITH CALCULUS I –
Three lecture hours. One recitation hour, and two lab hours per week. Prerequisite: PHYS 250 – MATH 251 and concurrent enrollment in MATH 252; PHYS 260 or 270 – PHYS 250.

PHYS 260 PHYSICS WITH CALCULUS II –
Three lecture hours. One recitation hour, and two lab hours per week. Prerequisite: PHYS 260 – MATH 252 and concurrent enrollment in MATH 252; PHYS 270 – PHYS 260.

PHYS 270 PHYSICS WITH CALCULUS III –
Three lecture hours. One recitation hour, and two lab hours per week. Prerequisite: PHYS 270 – MATH 253 and concurrent enrollment in MATH 253; PHYS 250 or 260 or 270 – PHYS 250.

POLITICAL SCIENCE

PLSC 115 COMPARATIVE GOVERNMENT (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Comparative treatment of the government and politics of countries of Western Europe, Eastern Europe, and developing nations. Transfer credit: UC; CSU (D3).

PLSC 130 INTERNATIONAL RELATIONS (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Survey of the basic elements of international relations, including the factors of sovereignty, nationalism, and national policies; the international struggle for power and order; the role of the United Nations and other supranational organizations. Transfer credit: UC; CSU (D3).
PLSC 150 INTRODUCTION TO POLITICAL THEORY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
Introduction to ways of thinking about politics and an exploration of the concepts of political theory. Political problems will be examined along with consideration of such ideas as political culture and ideology. Transfer credit: UC; CSU (D3).

PLSC 200 NATIONAL, STATE AND LOCAL GOVERNMENT (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 100.
A study of the structure and function of the basic national, state and local government institutions. The course will examine the dynamics of the constitutional power relationship between the respective branches of government and the operational relationship between the national, state and local governments. Students who have received credit for PLSC 210 or PLSC 301 may not receive credit for PLSC 200. Transfer credit: UC; CSU (D2b). (CAN GOVT 2).

PLSC 210 AMERICAN POLITICS (3)
Three lecture hours per week. Partially satisfies the American History and Institutions requirement. Recommended: Eligibility for ENGL 836.
The study of the historical and constitutional development of the foundations of United States political institutions and the dynamics of the governmental decision-making process from the colonial era to the present. Examination of the various sources of political attitudes, roles and behaviors of political participants and ways political decisions are made by the different units of government. Students who have received credit for PLSC 210 or PLSC 301 may not receive credit for PLSC 200. Transfer credit: UC; CSU (D2a).

PLSC 301 CALIFORNIA STATE AND LOCAL GOVERNMENT (3)
Three lecture hours per week. Partially satisfies the American History and Institutions requirement. Recommended: Eligibility for ENGL 836.
Examination of state and local governments and their relationship to each other. Among topics to be studied: population growth; initiative process; elections and campaigns; the legislature; the plural executive; California Judiciary; local governments – counties, cities, school districts and regional governments; growth and environmental policies; social programs; and cultural diversity issues. Students who have received credit for PLSC 200 may not receive credit for PLSC 301. Transfer credit: CSU (D2a).

PLSC 315 INTRODUCTION TO REVOLUTIONARY THOUGHT (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 100 or equivalent.
Examination of the major revolutions in history – religious, political, technological, economic and gender based. The goals behind revolution will be identified and the reasons for success or failure will be discussed. Transfer credit: CSU (D3).

PLSC 320 LATIN AMERICA IN THE INTERNATIONAL POLITICAL ECONOMY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 100.
This course explores Latin America’s role in the international political economy. The role of colonialism; different political ideologies such as communism, socialism and Peronism; the availability of natural resources; trade policies of individual states; and relations to markets will be explored. Forecasts of the economic future of the area will be considered. Transfer credit: UC; CSU (D3).

PLSC 330 MIDDLE EAST POLITICS: U.S. AND ISRAELI-PALESTINIAN CONFLICT (3)
(Credit/No Credit or letter grade.)
Three hours per week. Recommended: Eligibility for ENGL 100 or equivalent.
A survey of political, religious, cultural and economic motivations that have resulted in the formation of the modern state of Israel. The role of the U.S. in the formation and the protection of the state of Israel. The Arab-Muslim nations’ opposition to U.S. policies regarding the Israeli-Palestinian conflict. Transfer credit: UC; CSU (D3).

PSYCHOLOGY

PSYC 100 GENERAL PSYCHOLOGY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836 or equivalent.
Introduction to the scientific study of animal and human behavior. Origins and assessment of individual differences in terms of learning, memory, thinking, intelligence, motivation, emotion, perception, and personality. Transfer credit: UC; CSU (D3). (CAN PSY 2).

PSYC 105 EXPERIMENTAL PSYCHOLOGY (3)
Three lecture hours per week. Prerequisite: PSYC 100.
Application of scientific methods to psychological research. Fundamentals of experimental design, descriptive and inferential statistics, scientific report writing. Exploration of psychology as a major study and as a profession. Not recommended as a General Education elective. Transfer credit: UC; CSU.

PSYC 110 COURTSHIP, MARRIAGE AND FAMILY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.
The family as an institution in relation to other aspects of society, including dating, courtship, the family and personality development, marriage, member relationships, child rearing, elements of family unity, and disorganization. Examination of alternative life styles. Also listed as SOCI 110. Transfer credit: CSU (D3).
PSYC 171 QUANTITATIVE REASONING IN PSYCHOLOGY (3)
Three lecture hours per week plus one lab hour by arrangement. Prerequisite: MATH 120 or equivalent. Recommended: Eligibility for ENGL 836.

Introduction to psychological statistics and measurements essential to understanding statistical and quantitative arguments presented in news accounts, advertising, political campaigns, and popular treatment of psychological research. Transfer credit: CSU (B4).

PSYC 200 DEVELOPMENTAL PSYCHOLOGY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 100.

This survey course is designed to study the life span. It will examine how the individual changes physically, cognitively and psychologically from conception to death. Theoretical models, influences affecting development, and research relevant to development throughout life will be presented and discussed. Transfer credit: UC; CSU (D3, E1).

PSYC 201 CHILD DEVELOPMENT (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

Consideration of physical, social, emotional, and intellectual development extending from the prenatal period through adolescence. Emphasis on factors influencing the developing personality. Also listed as ECE 201. Transfer credit: UC; CSU (D3).

PSYC 268 BLACK PSYCHOLOGY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

Introduction to and exploration of basic and alternative psychological theories and concepts that provide an understanding and appreciation of the psychodynamics of Black America. Transfer credit: UC; CSU (D3).

PSYC 300 SOCIAL PSYCHOLOGY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

An overview of how the individual thinks about, influences and relates to others. Topics include attitude formation and change, self-concept, prejudice and discrimination, interpersonal attraction, conformity and group processes. Other related concepts are included. Transfer credit: UC; CSU (D3).

PSYC 301 PSYCHOLOGY OF PERSONAL DEVELOPMENT (3)
Three lecture hours per week. Prerequisite: PSYC 100, or 108, or equivalent. Recommended: Eligibility for ENGL 836.

Study of the ways people adjust to their environments. Emphasis on the ways personality develops and changes. Review of techniques people may use to cope more effectively with stress associated with our complex society. Small group projects may be a part of this course. Transfer credit: CSU (D3).

PSYC 390 PSYCHOLOGY OF CONSCIOUSNESS (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836 or equivalent.

A survey of models of human consciousness metaphysical and psychological. Application of these models towards defining discrete states of consciousness, i.e., sleep, dreams, reverie, etc. Practical implications and applications of the rules and tools for expanding awareness and decreasing stress (e.g., meditation, autogenic training, etc.). Transfer credit: UC; CSU (D3).

PSYC 410 ABNORMAL PSYCHOLOGY (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

The study of abnormal behavior and personality disorders. Topics include the causes of neuroses, psychoses, and other psychological problems, along with their etiology, dynamics, principal symptoms and treatments. The conceptual relationship between theory of personality and psychotherapy is examined. Transfer credit: UC; CSU (D3).

PSYC 665 SPECIAL TOPICS IN PSYCHOLOGY (.5-2)
(Credit/No Credit or letter grade.)
Eight hours per week per each .5 unit. Recommended: Eligibility for ENGL 836.

Advanced, specialized study in psychology. Designed for psychology students and/or students interested in the social sciences, such as anthropology, history and philosophy. Topics will be generated by community, student and faculty interests. Field trips and off-campus investigations may require special planning by the student. May be repeated for credit as topics vary. Transfer credit: UC; CSU.

READING

READ 420 CRITICAL AND EFFECTIVE READING (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Reading Prerequisite: READ 836 with Credit or a grade of C or higher, or eligibility for 400-level Reading courses on approved college Reading placement test, or other measures as necessary.

A college level reading course designed to advance reading effectiveness academically, professionally and personally. The course empowers college level students to critically read and analyze difficult texts of diverse cultural sources from across the curriculum. Students will learn to comprehend at a high level by summarizing, critiquing, evaluating, interpreting, reasoning, and understanding author intent, bias, tone, analogy, and figurative language. Transfer credit: CSU.

READ 425 SPEED READING (1.5)
(Credit/No Credit or letter grade.)
Three lecture hours per week for eight weeks. Prerequisite: READ 836 with Credit or a grade of C or higher, or eligibility for 400-level Reading courses on approved college Reading placement test, or other measures as necessary.
Designed to increase reading speed and comprehension of college-level material through instruction, practice and application. Emphasis on learning rapid reading techniques, improving comprehension, and gaining flexibility of reading speed to suit purpose of reading across all content areas. Students will apply speed reading technique to a variety of genres and styles of writing. May be repeated for credit. Transfer credit: CSU.

**READ 812 READING ASSISTANCE (.5-2)**
*(Credit/No Credit)*

One and one half to six hours per week by arrangement.

Each student's personal needs determine an instructional program that may include tutoring, computer-assisted instruction, and small group practice. Students will receive assistance on supplementary assignments to improve word analysis, vocabulary, comprehension, and study skills, as well as assistance on the reading assigned in their other courses. May be repeated for credit up to a maximum of six units. (Open entry.) (Units do not count toward the Associate Degree.)

**READ 813 READING ENRICHMENT (1-3)**
*(Credit/No Credit or letter grade)*

Sixteen lecture hours per unit.

This course is designed to increase student enjoyment, fluency and understanding of reading materials such as short stories, biographies, autobiographies, poetry and plays. As students read, they will improve their vocabulary, learn about different forms of writing, and come to see reading as a source of pleasure in their lives. (Open entry.) (Units do not count toward the Associate Degree.)

**READ 826 READING IMPROVEMENT (3)**
*(Credit/No Credit or letter grade)*

Three lecture hours and one lab hour by arrangement per week. Recommended: Completion of ESOL 830 or 831/832, or appropriate score on the college Reading Placement test and other measures as necessary.

Efficient reading strategies and study techniques to improve word analysis, vocabulary, reading comprehension, and study strategies related to text. Each student’s personal needs determine individual and small group practice. May be repeated for credit up to a maximum of six units. (Units do not count toward the Associate Degree.)

**READ 836 ACADEMIC READING STRATEGIES (3)**
*(Credit/No Credit or letter grade)*

Three lecture hours and one hour by arrangement per week. Prerequisite: READ 826 or ESOL 840 or ESOL 841 and 842 with Credit or a grade of C or higher, or eligibility for READ 836 on approved College Reading placement test and other measures as necessary. Students placing in READ 836 and ENGL 836 should enroll in both courses concurrently.

An introduction to college reading course to improve vocabulary, comprehension, critical reading strategies, study-reading, and reading efficiency techniques to prepare students for college English and other courses across the disciplines. May be repeated once for credit.

**READ 846 READING AND WRITING CONNECTIONS (5)**

Five lecture hours and one lab hour by arrangement per week. Writing PREREQUISITE: Completion of ENGL 826, ESOL 840 or ESOL 841/842 with a grade of C or better, or eligibility for ENGL 836, ENGL 400 or ENGL 846 on approved college placement test and multiple measures. Reading PREREQUISITE: Completion of READ 826, ESOL 840 or ESOL 841/842 with Credit or a grade of C or better, or eligibility for READ 836, ENGL 400, or ENGL 846 on approved Reading Placement Test and multiple measures.

Emphasis on reading and writing as interrelated processes; introduces students to college-level reading and writing. Includes instruction in thesis construction, organization, development, sentence skills, text-based writing, and effective reading strategies to improve comprehension, analysis and vocabulary. Also listed as ENGL 846. READ 846 prepares students for ENGL 100/105.

**READ 862 READING FOR NON-NATIVE SPEAKERS II (3)**
*(Credit/No Credit or letter grade)*

Three lecture hours per week. Recommended: ESL background and completion of ESOL 810, or 811 and 812, or placement in ESOL 820 as indicated by ESL placement test and other measures as necessary.

Designed for non-native speakers of English to improve English pronunciation, vocabulary and reading comprehension. Assignments are tailored to students' individual needs. (Units do not count toward the Associate Degree.)

**READ 863 READING FOR NON-NATIVE SPEAKERS III (3)**
*(Credit/No Credit or letter grade)*

Three lecture hours per week. Recommended: ESL background and completion of READ 862 or ESOL 820 or 821 and 822, or placement in ESOL 830 as indicated by ESL placement test and other measures as necessary.

An intermediate level reading course designed for non-native speakers of English to improve English pronunciation, vocabulary, and reading comprehension. Assignments are tailored to students' individual needs. (Units do not count toward the Associate Degree.)

**READ 864 READING FOR NON-NATIVE SPEAKERS IV (3)**
*(Credit/No Credit or letter grade)*

Three lecture hours per week. Recommended: ESL background and completion of READ 863 or ESOL 830 or 831 and 832, or placement in ESOL 840 as indicated by ESL placement test and other measures as necessary.

An advanced level reading course designed for non-native speakers of English to improve English pronunciation, vocabulary, reading comprehension, and critical thinking. Assignments are tailored to students' individual needs. May be repeated for credit up to a maximum of six units. (Units do not count toward the Associate Degree.)
REAL ESTATE

R.E. 100 REAL ESTATE PRINCIPLES (3)
Three lecture hours per week. Recommended: Eligibility for ENGL 836 and MATH 110.
Study of real and personal property, joint tenancies, partnerships, sales contracts, homesteads, deeds, and taxes. Also included are the basics in financing real estate practices and regulations of the real estate business. Transfer credit: CSU.

R.E. 110 REAL ESTATE PRACTICE (3)
Three lecture hours per week.
Real Estate Practice is the practical application of real estate skills in the field and office environments. This course presents the skills, knowledge and abilities needed to work with buyers, sellers, lessors and lessees to ensure success as a realtor. Completion of both R.E. 100 and R.E. 110 enables students to satisfy California state requirements for licensing. Transfer credit: CSU.

R.E. 130 CALIFORNIA MORTGAGE LOAN BROKERING AND LENDING (3)
Three lecture hours per week.
Study of the entire mortgage loan process from loan origination to underwriting, finishing with funding and servicing. The course also covers the marketing of oneself when entering the profession of mortgage loan brokering and lending. Additional topics covered include legal aspects of the business and various forms used within the profession. Transfer credit: CSU.

R.E. 665 SELECTED REAL ESTATE TOPICS (.5 or 1 or 1.5)
(Credit/No Credit or letter grade.)
A minimum of 8 lecture hours for each .5 unit.
Course will focus on, explore, or introduce selected topics in real estate. Examples include topics such as changes in real estate law and contemporary real estate themes. By arrangement lab hours may be required for some topics. May be repeated for credit. Transfer credit: CSU.

RESPIRATORY THERAPY

Admission to this program is by special application only

RPTH 400 PATIENT AND HEALTH CARE CONCERNS (2)
Two lecture hours per week. Prerequisite: Admission to the Respiratory Therapy program.
Introduction to the field of Respiratory Care; job responsibility and role within the health care team. Discussion of ethical and legal issues that involve Respiratory Care Practitioners. Discussion of aging, death and dying, and information technologies. Transfer credit: CSU.

RPTH 410 INTRODUCTION TO PATIENT CARE AND RESPIRATORY ASSESSMENT TECHNIQUES (3)
Two lecture hours plus three lab hours per week. Prerequisite: Admission to the Respiratory Therapy program.
The study and practice of basic nursing arts. Also included will be a review of basic science relevant to respiratory therapy and its application to respiratory system assessment. The class will include some hospital practice. Transfer credit: CSU.

RPTH 420 APPLICATION OF CARDIOPULMONARY ANATOMY AND PHYSIOLOGY (3)
Three lecture hours per week. Prerequisite: Admission to the Respiratory Therapy program.
Study of the healthy cardiopulmonary system with application to the types of alterations that occur with disease. Emphasis will be applied to areas of particular concern to Respiratory Care Practitioners. When applicable, case histories will be utilized. Computer programs will be used for computations requiring practice. Transfer credit: CSU.

RPTH 430 INTRODUCTION TO RESPIRATORY THERAPEUTICS (6)
Four lecture hours and six laboratory hours per week. Prerequisite: Admission to the Respiratory Therapy program.
The study and laboratory practice of respiratory care procedures basic to medical/surgical respiratory care. Included will be respiratory pharmacology, oxygen and aerosol therapy, hyperinflation therapy, secretion removal procedures, adjuncts to cardiopulmonary resuscitation and the care and cleaning of respiratory therapy equipment. Transfer credit: CSU.

RPTH 438 CLINICAL CLERKSHIP I – SPRING (1)
(Credit/No Credit.)
Supervised clinical experience in local hospital. Prerequisite: Admission to the Respiratory Therapy program.
Supervised experience in the medical/surgical areas of a local hospital, observing and performing respiratory care procedures to non-critical care patients. Transfer credit: CSU.

RPTH 445 RESPIRATORY DISEASES I (2)
Two class hours per week. Prerequisite: Admission to the Respiratory Therapy program.
Using the obstructive pulmonary diseases (asthma, chronic bronchitis and emphysema) as a model, the student will learn disease terminology, disease classification, history taking and physical examination. Also included will be basic radiologic, clinical and pulmonary diagnostics. Transfer credit: CSU.

RPTH 448 CLINICAL CLERKSHIP II – SUMMER (2)
(Credit/No Credit.)
Supervised clinical experience in local hospitals. Prerequisite: Admission to the Respiratory Therapy program.
Supervised experience in the Medical-Surgical patient care areas of a local hospital. Emphasis is on attaining proficiency in skills performed by a Respiratory Care Practitioner in these areas. Transfer credit: CSU.

RPTH 450 RESPIRATORY DISEASES II (3)
Three lecture hours per week. Prerequisite: Completion of the first year Respiratory Therapy program.
Continuation of the study of cardiopulmonary diseases utilizing the model developed in RPTH 445. To include the treatment and pharmacotherapy of selected disorders. Transfer credit: CSU.
RPTH 458 CLINICAL CLERKSHIP III (6)
(Credit/No Credit.)
Two lecture hours per week for eight weeks and 320 total hours of supervised clinical experience in local hospitals. Prerequisite: Completion of the first year Respiratory Therapy program.

Supervised experience in the Adult Intensive Care Unit and/or Coronary Care Unit of a local hospital. Emphasis is on attaining proficiency in skills performed by a respiratory care practitioner in these areas. Transfer credit: CSU.

RPTH 460 RESPIRATORY CRITICAL CARE (4)
Six lecture hours and six lab hours per week plus two hours per week by arrangement for eight weeks. Prerequisite: Completion of the first year Respiratory Therapy program.

The study and practice of techniques necessary to provide respiratory care to patients in adult critical care areas. Emphasis on team management, assessment and communication, airway management, ventilator care and monitoring. Transfer credit: CSU.

RPTH 475 HEMODYNAMIC MONITORING AND SELECTED TOPICS IN RESPIRATORY CARE (2)
Two class hours per week. Prerequisite: Admission to the Respiratory Therapy program.

The application of advanced principles of cardiopulmonary diagnostics and physiology to the care of critically ill patients. The application of the above principles to other body systems. Transfer credit: CSU.

RPTH 480 PULMONARY FUNCTION TESTING (1.5)
Three lecture hours per week for eight weeks. Prerequisite: Completion of the first year Respiratory Therapy program.

Fundamental aspects of pulmonary function testing, including terminology, types of tests, quality control, and interpretation. Transfer credit: CSU.

RPTH 484 MEDICAL TERMINOLOGY FOR RESPIRATORY THERAPY (2)
Two lecture hours per week. Prerequisite: Admission to the Respiratory Therapy program.

A course designed for respiratory therapy students to study and practice the language of medicine. Special attention will be given to body systems and words most encountered in this profession. Offered in an online format. Transfer credit: CSU.

RPTH 485 CLINICAL MEDICINE SEMINAR (2)
Two class hours per week. Prerequisite: Completion of the first year Respiratory Therapy program.

Integration of pathology, pathophysiology, diagnostic techniques and therapeutic modalities through the utilization of patient case studies. Preparation for job placement. Transfer credit: CSU.

RPTH 488 CLINICAL CLERKSHIP IV (6)
(Credit/No Credit.)
Supervised clinical experience in local hospitals. Prerequisite: Completion of the first year Respiratory Therapy program.

Supervised experience in the Adult Intensive Care Unit, Coronary Care Unit, Pulmonary Function Lab, Neonatal/Pediatric Care Units of a local hospital. Also the option of a home care rotation. Emphasis is on attaining proficiency in skills performed by a Respiratory Care Practitioner in these areas. Transfer credit: CSU.

RPTH 490 NEONATAL, PEDIATRIC AND REHABILITATIVE CARE (3)
Two lecture hours plus three lab hours per week. Prerequisite: Admission to the Respiratory Therapy program.

An introductory course in neonatal and pediatric care centering on respiratory care and diseases requiring this support. Included will be a module on adult rehabilitation. Transfer credit: CSU.

RPTH 495 RESPIRATORY CARE BOARD EXAMINATION PREPARATION & REVIEW (2)
(Credit/No Credit or letter grade.)
Two lecture hours per week. Prerequisite: Completion of the first year of a respiratory therapy program or an applicant to the Respiratory Care Board for Respiratory Care.

Preparation and review for the Certification Examination of the California Respiratory Care Board and the Registration Examination offered by the National Board for Respiratory Care. May be repeated for credit. Transfer credit: CSU.

RPTH 665 SELECTED TOPICS IN RESPIRATORY THERAPY (.5 or 1 or 1.5 or 2)
(Credit/No Credit or letter grade.)
Eight hours for each .5 unit.

This course is designed to develop specific skills that are utilized in the practice of respiratory therapy. The course may focus on new areas of practice or specialized skills. Transfer credit: CSU.

SOCIAL SCIENCE

SOSC 140 MEDIA AND SOCIETY (3)
(Credit/No Credit or letter grade.)
Three lecture hours per week. Recommended: Eligibility for ENGL 836.

An interdisciplinary study of the relationship between media and society including media’s role in economic, social, political, and cultural practices. Emphasis is placed on students developing the ability to analyze and evaluate the impact of mass media on all societies. Transfer credit: CSU (D3).

SOSC 150 GENDER, SOCIETY AND CULTURE (3)
Three lecture hours per week. Open to women and men.

An interdisciplinary study of female experience in contemporary and traditional American society. Explores the status of women with emphasis on issues of age, class, race and political opinion. Transfer credit: UC; CSU (D3).
SOSC 160 WOMEN IN TRANSITION SEMINAR (1)  
(Credit/No Credit.)  
Concurrent enrollment required in designated Women in Transition Program class(es). Students must be in their first semester in the WIT Program. Open to women and men.  
Assists re-entering students in understanding and evaluating their own process of transition and their changing aspirations. Familiarizes students with college resources and methods of identifying individual needs and goals. Focuses on students’ redefinition of identity within the academic system. Explores the higher education system. Specific content is integrated with other WIT Program material. Transfer credit: CSU.

SOSC 665 SELECTED TOPICS IN WOMEN'S STUDIES  
(.5 or 1 or 1.5)  
(Credit/No Credit.)  
Topics will be presented that explore women’s past and present contributions to society through history, politics and literature. The course will also focus on issues that challenge women in today’s world ranging from how to balance academic and personal life to what is – and what isn’t – sexual harassment. Topics vary every semester. Transfer credit: CSU.

SOCIOLOGY

SOCI 100 INTRODUCTION TO SOCIOLOGY (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours per week. Recommended: Eligibility for ENGL 100.  
Introduction to the scientific study of the behavior of people in groups and the study of individual behavior as it reflects group membership and experience. Fosters in students an understanding of the society in which they live, of other societies, and of their own and other people’s behavior. Exposure to basic concepts necessary as the foundation course in the field of sociology. Emphasis on critical thinking. Transfer credit: UC; CSU (D3). (CAN SOC 2).

SOCI 105 CONTEMPORARY SOCIAL ISSUES (3)  
Three lecture hours per week. Recommended: Eligibility for ENGL 836.  
Examination of selected social issues viewed in relation to changes going on in society. Includes poverty, aging, health care, corporate power and work. Emphasis on social science research and theory. Transfer credit: UC; CSU (D3). (CAN SOC 4).

SOCI 108 COMMUNITY RELATIONS (3)  
Three lecture hours per week. Recommended: Eligibility for ENGL 836.  
An analysis of administration of justice practitioners in the context of the community. Emphasis on problems inherent in policing a heterogeneous society, police roles and subculture, community expectations of police, media images of police, and problem areas. Also listed as ADMJ 108. Transfer credit: UC; CSU.

SOCI 110 COURTSHIP, MARRIAGE AND FAMILY (3)  
Three lecture hours per week. Recommended: Eligibility for ENGL 836.  
The family as an institution in relation to other aspects of society, including dating, courtship, the family and personality development, marriage, member relationships, child rearing, elements of family unity, and disorganization. Alternative lifestyles will be examined. Also listed as PSYC 110. Transfer credit: CSU (D3).

SOCI 141 RACE AND ETHNICITY (3)  
Three lecture hours per week. Recommended: Eligibility for ENGL 836.  
Interdisciplinary study of varied racial and cultural aspects of American society. Role of minority groups; nature of prejudice. Field investigations required. Transfer credit: UC; CSU (D3).

SOCI 665 SELECTED TOPICS IN SOCIOLOGY (3)  
Three lecture hours per week. Recommended: Eligibility for ENGL 836.  
The course explores selected topics or themes from the perspectives and insights generated by sociology. Topics of study will be developed by student survey and will be listed in the class schedule. Field trips and off-campus investigations may require special planning by the student. May be repeated for credit as topics vary. Transfer credit: UC; CSU (D3).

SPANISH

SOCI 101 SPANISH FOR PUBLIC SERVICE I (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours and one lab hour by arrangement per week.  
A course to help public service professionals learn basic Spanish grammar and vocabulary, phrases and expressions to serve Spanish-speaking clientele. Students will improve oral proficiency and listening comprehension and become familiar with questions and responses in Spanish commonly heard in public service settings. The course may be tailored to a particular public service sector, such as health care, public safety, social work, or education. May be repeated once for credit. Transfer credit: CSU.

SPAN 101 SPANISH FOR TRAVELERS (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours and one lab hour by arrangement per week.  
An introductory Spanish course for students to acquire the ability to comprehend, speak, read and write Spanish and use Spanish conversation skills to make simple arrangements related to travel to a Spanish-speaking locale. Students will learn basic grammar and vocabulary, phrases, and expressions used in traveling. May be repeated once for credit. Transfer credit: CSU.
SPAN 110 ELEMENTARY SPANISH (5)
Five lecture hours and one lab hour per week. Recommended: Eligibility for ENGL 836 or ENGL 400.
Spanish structures and active vocabulary based on oral and written pattern drills. Conversation based on short dialogues containing only structures already practiced. Transfer credit: UC; CSU (C2).

SPAN 111, 112 ELEMENTARY SPANISH I and II (3, 3)
(Credit/No Credit or letter grade.)
Three lecture hours and one lab hour per week. SPAN 111 – Recommended: Eligibility for ENGL 836 or ENGL 400. SPAN 112 – Prerequisite: SPAN 111 or equivalent.
A two-semester sequence covering the same course materials as SPAN 110. Students starting this sequence must complete SPAN 112 prior to attempting SPAN 120. Transfer credit: UC; CSU (C2).

SPAN 120 ADVANCED ELEMENTARY SPANISH (5)
Five lecture hours and one lab hour per week. Prerequisite: SPAN 110, 112, or equivalent college-level course.
Continuation of SPAN 110 or SPAN 112, for students who can use Spanish to communicate about the “here and now” and relate a simple story in the past. Students practice and develop further communicative competence in written and spoken Spanish for use in a variety of social contexts and settings. Readings are used as the basis of classroom discussions. Cultural aspects of the Spanish-speaking world are emphasized. The course is conducted primarily in Spanish. Transfer credit: UC; CSU (C2).

SPAN 121 ADVANCED ELEMENTARY SPANISH I (3)
Three lecture hours and one lab hour per week. Prerequisite: SPAN 110 or 112, or equivalent.
A course covering approximately the same material as the first half of SPAN 120. For students who can use Spanish to communicate about the “here and now” and relate a simple story in the past. Students practice and develop further communicative competence in written and spoken Spanish for use in a variety of social contexts and settings. Readings are used as the basis of classroom discussions. Cultural aspects of the Spanish-speaking world are emphasized. The course is conducted primarily in Spanish. Transfer credit: UC; CSU (C2).

SPAN 122 ADVANCED ELEMENTARY SPANISH II (3)
Three lecture hours and one lab hour per week. Prerequisite: SPAN 121 or equivalent.
A course covering approximately the same material as the second half of SPAN 120. For students who can use Spanish to communicate about the “here and now” and relate a simple story in the past. Students practice and develop further communicative competence in written and spoken Spanish for use in a variety of social contexts and settings. Readings are used as the basis of classroom discussions. Cultural aspects of the Spanish-speaking world are emphasized. The course is conducted primarily in Spanish. Transfer credit: UC; CSU (C2).

SPAN 130 INTERMEDIATE SPANISH (3)
Three lecture hours and one lab hour per week. Prerequisite: SPAN 120 or 122 with a passing grade.
Practice of conversation and composition; review of grammar; class and collateral reading of Spanish and Latin-American literature. Transfer credit: UC; CSU (C2).

SPAN 140 ADVANCED INTERMEDIATE SPANISH (3)
Three lecture hours and one lab hour by arrangement. Prerequisite: SPAN 130 with a passing grade.
Further practice of conversation and composition based on class reading of works of modern Spanish and Latin-American authors; review of grammar; collateral reading of Latin-American literature. Transfer credit: UC; CSU (C2).

SPAN 161 READINGS IN SPANISH AMERICAN LITERATURE I (3)
Three lecture hours per week. Prerequisite: SPAN 140 or equivalent.
Study of some of the trends and some of the best literary works of Spanish American Literature of the 19th century. Further development of communication skills and vocabulary in the Spanish language. Study of the fantastic and often misunderstood culture, politics, and social mores of Spanish America through the analysis of its poetry, short stories, and novels. Transfer credit: UC; CSU (C2).

SPAN 162 READINGS IN SPANISH AMERICAN LITERATURE II (3)
Three lecture hours per week. Prerequisite: SPAN 161 or equivalent.
Exploration of the literary trends and some of the best novels, poetry, and short stories that exemplify Spanish American literature of the 20th century; familiarize the student with the cultural, sociological, and political framework and the concerns that these writings represent. Show how this literature reflects the fantastic reality of the Spanish American world. Transfer credit: UC; CSU (C2).

SPAN 220 SPANISH FOR SPANISH SPEAKERS I (5)
(Credit/No Credit or letter grade.)
Five lecture hours and one lab hour by arrangement per week. Recommended: Completion of SPAN 110 or 112 with a grade of C or better, or equivalent college-level course, or equivalent.
Designed for students who speak and understand basic Spanish because of life experience, but who also need practice in reading and writing Spanish and want to improve their knowledge/ command of grammar and other linguistic features. Students practice and develop improved communicative competence in written and spoken Spanish for use in a variety of social contexts, settings, and registers. Readings are used as the basis of classroom discussions and writing practice. Cultural aspects of the Spanish-speaking world are emphasized. The course is conducted primarily in Spanish. Transfer credit: UC; CSU (C2).
SPAN 801 CONVERSATIONAL SPANISH I (2)  
(Credit/No Credit.)  
Three lecture hours per week.  
This is the most elementary course in conversational  
Spanish. Emphasis is placed on learning basic conversational  
patterns that may be applied to everyday situations. May be  
repeated once for credit. (This course will not fulfill the language  
requirements at CSU or UC.)

SPEECH

SPCH 100 FUNDAMENTALS OF SPEECH (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours and one hour by arrangement per week.  
Recommended: Eligibility for ENGL 836.  
Study and practice of basic principles of effective oral  
communication. Research, preparation, and extemporaneous deliv-  
ery of various types of speeches. Analysis and evaluation of oral  
communication. Examination of relevant social issues. Transfer  
credit: UC; CSU (A1). (CAN SPCH 4).

SPCH 111 ORAL INTERPRETATION OF LITERATURE (3)  
Three lecture hours per week. Recommended: Eligibility for  
ENGL 836.  
Study and interpretation of the logical and emotional content  
of poems, short stories, and plays. Emphasis on critical reading  

SPCH 120 INTERPERSONAL COMMUNICATION (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours per week. Recommended: Eligibility for  
ENGL 836 and READ 836, or ENGL/READ 846, or ENGL 400, or  
equivalent.  
Study and practice of interpersonal relationships. Analysis of  
the verbal and non-verbal modes of communication. Investigation  
of communication conflicts in interpersonal  
relationships and methods of conflict resolution. Transfer  
credit: UC; CSU (A1). (CAN SPCH 8).

SPCH 127 ARGUMENTATION AND DEBATE (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours per week. Recommended: Eligibility for  
ENGL 836 or ENGL/READ 846, or equivalent.  
Lecture-laboratory course in the principles and techniques of  
argumentation and debate. Research in significant social prob-  
lems. Analysis of propositions, issues, evidence and reasoning.  
Training and experience in the forms of debate. Transfer  
credit: UC; CSU (A1). (CAN SPCH 6).

SPCH 128 FORENSICS (.5-1)  
(Credit/No Credit or letter grade.)  
Recommended: Eligibility for ENGL 836 or ENGL 400.  
Participation in approved intercollegiate forensic contests.  
May be repeated for credit. Transfer credit: CSU.

SPCH 130 VOICE AND ARTICULATION (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours per week. Recommended: Eligibility for  
ENGL 836 or ENGL 400.  
Exploration of various modes of communicating ideas, emo-  
tions, and values through lessons in projection, resonance,  
articulation and expressiveness. Recommended for majors in  
TV/Radio, broadcasting, theater performance, business manage-  
ment and law. Transfer credit: CSU.

SPCH 150 COMMUNICATING ACROSS CULTURES (3)  
Three lecture hours per week. Recommended: Completion of or  
concurrent enrollment in ENGL 400 or 800.  
Designed for students from all cultural backgrounds. Study of  
basic theory and skills of round table discussion, panel discus-  
sion, and public speaking in an intercultural context. Emphasis  
given to the sensitivity and empathy required for communicating  
with those from other cultures. Transfer credit: UC; CSU (A1).

SPCH 160 BASIC SKILLS IN PUBLIC SPEAKING (3)  
(Credit/No Credit or letter grade.)  
Three lecture hours per week.  
Designed to help the intermediate-advanced non-native and  
native speaker in basic oral communication skills. Practice in  
pronunciation, conversation, small group communication and  
basic public speaking skills. Transfer credit: CSU.

SPCH 811, 812, 813 SPEECH FOR NON-NATIVE  
SPEAKERS I,II, III (3, 3, 3)  
(Credit/No Credit or letter grade.)  
Three lecture hours and one hour by arrangement per week.  
Prerequisites: SPCH 812 – SPCH 811; SPCH 813 – SPCH 812.  
Designed to help the student develop fluency in spoken  
English. Practice in pronunciation, stress, rhythm, intonation,  
and usage. (Units do not count toward the Associate Degree.)

STUDENT GOVERNMENT

SGOV 111 STUDENT GOVERNMENT I – FALL (1-2)  
One lecture hour per week and attendance at weekly Student  
Council meeting.  
Designed to assist Student Council members, club officers,  
and other interested students in acquiring background and skills  
for effective participation in the college community. Includes  
parliamentary procedure, group dynamics and analysis of the  
nature and techniques of effective leadership. May be taken  
twice for credit. (Open entry.) Transfer credit: CSU.

SGOV 112 STUDENT GOVERNMENT II – SPRING (1-2)  
One lecture hour per week and attendance at weekly Student  
Council meeting.  
Continuation of SGOV 111. May be taken twice for credit.  
(Open entry.) Transfer credit: CSU.
SGOV 115 COMMUNITY SERVICE & LEADERSHIP
PRACTICUM (1)
(Credit/No Credit)
Eight lecture hours plus 24 hours of structured and verified community service in an established and approved service organization.

A practicum course in community service bringing together students and approved service agencies or organizations. The course prepares students for community service and helps them find an approved community opportunity that matches their service criteria. In addition to service in the community, the course meets four times in the classroom. Transfer credit: CSU.

SURGICAL TECHNOLOGY

SURG 440 BASIC SCIENCES FOR SURGICAL TECHNOLOGY (6)
Six lecture hours and three lab hours by arrangement per week. Prerequisite: Admission to the Surgical Technology program. Recommended: Completion of MATH 110 or equivalent; eligibility for ENGL 836 or equivalent.

This course reviews anatomy for surgical procedures and common disease states requiring surgical intervention. The course also covers common medical terminology and operating room medications pertinent to the surgical technologist.

SURG 441 SURGICAL PATIENT CARE CONCEPTS (10)
Five lecture hours and fifteen lab hours and three lab hours by arrangement per week. Prerequisite: Admission to the Surgical Technology program. Recommended: Completion of MATH 110 or equivalent; eligibility for ENGL 836 or equivalent.

This course provides the student with the theoretical and technical fundamentals of caring for a patient in surgery and procedures common to the surgical technologist, including sterile technique and instrument preparation. Prepares the student for in-hospital training in the second semester.

SURG 442 SURGICAL SPECIALTIES (6)
Six lecture hours per week. Prerequisites: Completion of SURG 440 and SURG 441 with grades of C or better.

Covers the most common procedures and equipment utilized by the surgical technologist during specialty surgery. These surgeries include neurological, cardiac and pediatric procedures. Prepares the student for the national certification examination.

SURG 443 CLINICAL PRACTICE FOR SURGICAL TECHNOLOGY (8)
(Credit/No Credit)
Thirty-two hours of clinical practice per week. Prerequisites: SURG 440 and SURG 441 with grades of C or better, and a current healthcare provider CPR card.

Hands-on experience in the surgical suite caring for patients under the supervision of a surgical technologist. The student will also gain experience in patient and staff interaction and communication. Prepares the student for the national certification examination.

SURG 445 INTRODUCTION TO CENTRAL SERVICE TECHNOLOGY (4)
Three lecture hours and three lab hours per week. Recommended: Eligibility for ENGL 836 or ENGL 400 or equivalent.

The first of two courses providing an introduction to concepts and practical applications of central service processing, distribution and instrumentation. This includes basics of human anatomy, infection control, aseptic technique, sterile processing decontamination and disinfection. Prepares student to take the National Central Service Processing Examination. May be repeated three times for credit.

SURG 446 CLINICAL PRACTICE FOR CENTRAL SERVICE TECHNOLOGY (3)
(Credit/No Credit)
A total of 192 hours of in-hospital training by arrangement. Prerequisite: Completion of SURG 445 with a grade of C or better.

The second of two courses in Central Service Technology provides the student with supervised experience in sterile processing, supply distribution and inventory control. Prepares the student to take the national Central Service Processing Examination. May be repeated three times for credit.

SURG 665 SELECTED TOPICS IN SURGICAL TECHNOLOGY AND CENTRAL SERVICE/STERILE PROCESSING (.5 or 1 or 1.5 or 2)
(Credit/No Credit or letter grade.)
Eight lecture hours per .5 unit.

Designed to develop specific skills that are utilized in the practice of surgical and central service technology. Topics will rotate and will focus on new areas of practice or specialized skills.

TAGALOG

Language Lab and Listening Requirement: Students enrolled in foreign language courses are required to make use of the language lab as prescribed by each department. Imitation, response, and independent practice are integral features of the study of a foreign language at the College.

TAGA 111, 112 ELEMENTARY TAGALOG I and II (3, 3)
(Credit/No Credit or letter grade.)
Three lecture hours plus one lab hour per week. TAGA 111 – Recommended: Eligibility for ENGL 386 or ENGL 400 or equivalent. TAGA 112 – Prerequisite: TAGA 111 or equivalent.

A basic course sequence for native and non-native students. The student will acquire a basic ability to speak, read and write in Tagalog (Filipino) at the elementary level and will learn about the customs, culture and history of the Filipino world. Transfer credit: UC; CSU (C2).
TAGA 121, 122 ADVANCED ELEMENTARY TAGALOG
I and II (3, 3)
(Credit/No Credit or letter grade.)
Three lecture hours plus one lab hour per week. Prerequisites: TAGA 121 – TAGA 112 or equivalent. TAGA 122 – Successful completion of TAGA 121 or equivalent.
A two-semester sequence covering the second year of Tagalog. Continues the oral and written skills studied and practiced in TAGA 111/112 and continues to develop the foundation in structure and vocabulary needed for basic communication. Emphasis is on the active use of language. Transfer credit: UC; CSU.

TELECOMMUNICATIONS AND NETWORK INFORMATION TECHNOLOGY

TCOM 100 TELECOMMUNICATIONS, NETWORKING AND WIRELESS TECHNOLOGIES (3)
Three lecture hours per week.
An introductory course designed to acquaint students with today’s convergent communications technologies. Course will examine the structure, function and services of the networks and systems used to provide voice, data, and wireless communications. This is the first course in a program of study for Telecommunications, Wireless and Network Information Technology majors but has been designed to provide anyone interested with insight into the workings and opportunities of this dynamic and exciting field. Transfer credit: CSU.

TCOM 405 ELECTRICAL FUNDAMENTALS FOR TELECOMMUNICATIONS (6)
Five lecture hours and three lab hours per week plus one hour by arrangement per week. Pre requisite: Elementary algebra or equivalent.
A foundation course in the study of electricity and electronics fundamentals. This course is the first course in majors that require and in depth understanding and developed skill in direct and alternating current. Coverage includes the vocabulary, components, laws and test equipment used to apply electrical theory to working circuits and systems. Directed laboratory experience with test equipment as applied to telecommunications. Transfer credit: CSU.

TCOM 410 WIRING AND INSTALLATION FOR TELECOMMUNICATIONS AND NETWORKING (6)
Five lecture hours and three lab hours per week plus one hour by arrangement per week. Prerequisites: Satisfactory completion (grade of C or better) of or concurrent enrollment in TCOM 405 or ELEC 110, or equivalent training or experience.
Technical introduction to the structure and practices of basic telephony, with direct hands-on experience with the tools and skills required for entry-level employment. Course coverage includes equipment, techniques, terminology, and specifications used in the telecommunications and networking industries. Students will install, test and troubleshoot basic telecommunications and networking infrastructure from wired lines and cabling to network patch panels and distribution systems. Course is based upon EIA TIA 568 and 570 Standards. May include field trips. Transfer credit: CSU.

TCOM 415 WIRELESS AND MOBILE COMMUNICATIONS FUNDAMENTALS (3)
Three lecture hours per week. Prerequisite: Satisfactory completion (grade of C or better) of TCOM 410, or concurrent enrollment in TCOM 410, or equivalent training or experience.
This course presents a study of the fundamental concept of wireless communications as it applies to mobile communications, wireless networking, and applications. The course will examine all aspects of wireless technology including: history and structure of wireless communications networks, access technologies, fundamentals of radio frequency transmission, modulation and digital voice coding, cellular packet radio systems, and wireless local area networks. Transfer credit: CSU.

TCOM 420 SIGNAL TRANSMISSION AND RADIO FREQUENCY (R.F.) FUNDAMENTALS (6)
Five lecture hours and three lab hours per week plus one hour by arrangement per week. Prerequisites: Satisfactory completion (grade of C or better) of TCOM 405 and 410, or equivalent training or experience.
Analysis of the transmission of signals as applied to wireline and wireless communications. Covers concepts of frequency, wavelength, power, phase, gain and loss, R.F. and their applications to the transmission of information. Lab and skill activities emphasize installation and measurement techniques with electronic test equipment and specialized telecommunications test gear. Students will work with live telecommunications circuits and equipment. Transfer credit: CSU.

TCOM 440 TRANSPORT NETWORKS AND THE FUNDAMENTALS OF DIGITAL COMMUNICATIONS (6)
Five lecture hours and three lab hours per week plus one hour by arrangement per week. Prerequisite: Satisfactory completion (grade of C or better) of or concurrent enrollment in TCOM 420, or equivalent training or experience.
Instruction covers the primary transport networks and basic digital communications fundamentals that make it possible for end users to access and utilize the world’s telecommunication from both wire line and wireless access points. Focused hands-on lab activities in the installation and testing of digital signal processing at the DS1 (T-Carrier) level. Transfer credit: CSU.
TCOM 445 WIRELESS AND MOBILE COMMUNICATIONS SYSTEMS AND APPLICATIONS (3)
Three lecture hours per week. Prerequisite: Satisfactory completion (grade of C or better) of TCOM 440, or equivalent training or experience.

An in-depth study of wireless and mobile communications systems and applications. The course will examine the technical aspects of wireless and mobile communications systems including cell sites, mobile switching centers, signaling systems, wireless network interworking, wireless intelligent network capabilities, and wireless applications and protocols. Transfer credit: CSU.

TCOM 451 PC CONFIGURATION AND REPAIR (6)
Five lecture hours and three lab hours per week plus one hour by arrangement per week. Prerequisites: Satisfactory completion (grade of C or better) of CAOT 105 or equivalent, and satisfactory completion (grade of C or better) of or concurrent enrollment in ELEC 110 or TCOM 405, or equivalent training or experience.

This course provides preparation for A+ certification. A hands-on technical course designed to provide in-depth understanding of PC hardware and software from an installation and repair outlook. Materials covered will include beginning and advanced software, hardware components and configuration, operating systems and how they control the PC. Includes direct hands-on experience with the tools and skills required for entry-level employment. Transfer credit: CSU.

TCOM 452 A+ CERTIFICATION EXAM PREPARATION (1)
(Credit/No Credit)
One lecture hour and three lab hours by arrangement per week. Prerequisite: Satisfactory completion (grade of C or better) of or concurrent enrollment in TCOM 451, or equivalent training or experience.

Designed to assist students in preparing to take the A+ certification examination for Computer Repair. May be repeated three times for credit. Transfer credit: CSU.

TCOM 460 FIBER OPTICS TECHNOLOGY (3)
Three class hours per week and one hour by arrangement per week.

An introductory course in fiber optics technology that will include the theory of fiber optic communications, fiber system design, network construction, and fiber optic test equipment. Instructor-directed hands-on splicing and working with test equipment is a major component of this course. Transfer credit: CSU.

TCOM 462 SWITCHING TECHNOLOGY (3)
Three lecture hours per week and one hour by arrangement per week. Prerequisites: Satisfactory completion (grade of C or better) of TCOM 100 and TCOM 410, or equivalent training or experience.

Introduction to the fundamentals of switching technologies as they apply to voice and data telecommunications circuits and systems. Explores the basic components of switching systems access methods, trunking and signaling. Both PBX and central office applications of switching will be discussed. Transfer credit: CSU.

TCOM 465 WIRELESS LOCAL AREA NETWORKS (3)
Three class hours and one hour by arrangement per week. Prerequisite: Satisfactory completion (grade of C or better) of TCOM 480, or equivalent training or experience.

An in-depth technical course in the design and implementation of wireless local area networks. Students will be introduced to the technology, infrastructure, application and installation of wireless networks. Students will install and administer a wireless network using Cisco product lines. Transfer credit: CSU.

TCOM 480 NETWORK FUNDAMENTALS (LAN) (3)
Three class hours per week and one hour by arrangement per week.
Cisco Academy Course – CCNA 1

An introductory course in networking specific to local area networks (LAN). Topics will include LAN hardware, software, topology, transmission medium, wide area network connectivity, diagnostic tools, system administration, and vendor specific LAN products. Class is complemented with hands-on experience in constructing a local area network. Course is patterned after Cisco training guidelines. Also listed as CAOT 480. Transfer credit: CSU.

TCOM 481 NETWORK SYSTEMS ADMINISTRATION (3)
Three class hours per week and one hour by arrangement per week. Prerequisite: Satisfactory completion (grade of C or better) of TCOM 480, or equivalent training or experience.

An application-based course in Network Administration specific to LAN/WAN’s. Coverage includes the functions and concepts of a wide area network, Microsoft server, designing LAN/ WAN’s and their network administration. Hands-on experience provided in setting up and troubleshooting servers, workstations, network and peripheral devices. Course is patterned after Microsoft networking guidelines. Transfer credit: CSU.

TCOM 482 INTRODUCTION TO ROUTERS (3)
Three class hours per week and one hour by arrangement per week. Prerequisite: Satisfactory completion (grade of C or better) of TCOM 481, or equivalent training or experience.
Cisco Academy Course – CCNA 1 & 2

Introductory course on router configuration in wide area networks. Students will perform basic router configurations. Course examines common protocols, IP networking concepts, and subnetting techniques. Includes instructor-directed hands-on activities. This course is patterned after Cisco training guidelines. Transfer credit: CSU.
TCOM 483 NETWORK SWITCHES – CONCEPTS AND APPLICATIONS (3)
Three lecture hours per week and one hour by arrangement per week. Pre requisite: Satisfactory completion (grade of C or better) of TCOM 481, or equivalent training or experience. Recommended: Satisfactory completion (grade of C or better) of TCOM 482, or equivalent training or experience.
Cisco Academy Course – CCNA 3
Introductory course in network switching concepts and configurations as applied to computer networks. Course examines switching protocols, spanning tree protocols, virtual LANs and other specific models. Basic design of switch configurations and the use of switches in network architecture will be covered. Includes instructor-directed hands-on activities. This course is patterned after Cisco training guidelines. Transfer credit: CSU.

TCOM 484 ADVANCED ROUTING CONCEPTS AND APPLICATIONS (3)
Three lecture hours per week and one hour by arrangement per week. Prerequisite: Satisfactory completion (grade of C or better) of TCOM 482, or equivalent training or experience. Recommended: Satisfactory completion (grade of C or better) of TCOM 483, or equivalent training or experience.
Cisco Academy Course – CCNA 3 & 4
An advanced course in routing concepts and configurations on large internetworks. Students will configure and manage routers by implementing advanced features and common routing protocols such as EIGRP and OSPF. Includes instructor-directed hands-on activities. This course is patterned after Cisco Router training guidelines. Transfer credit: CSU.

TCOM 485 TROUBLESHOOTING THE INTERNETWORK (3)
Three lecture hours and one hour by arrangement per week. Prerequisites: Satisfactory completion (grade of C or better) of TCOM 483 and TCOM 484, or equivalent training or experience.
This course outlines the troubleshooting methodology and techniques for routers and switches in a network infrastructure. Students will learn to use existing software and the diagnostic features of a protocol analyzer to troubleshoot and analyze internetworks. This course is patterned after Cisco training guidelines. Transfer credit: CSU.

TCOM 486 NETWORK SECURITY (3)
Three lecture hours and one hour by arrangement per week. Prerequisite: Satisfactory completion (grade of C or better) of TCOM 482, or equivalent training or experience.
This course introduces students to network security using firewall and VPN (virtual private network) technology. Students will be exposed to the theory and application of both firewall and VPN network architecture. Students will practice security administration using Checkpoint firewall software. Follows Checkpoint CCSA training guidelines. Transfer credit: CSU.

TCOM 490 TECHNICAL OVERVIEW OF THE INTERNET (3)
Three class hours per week and one hour by arrangement per week.
A technical overview of the Internet. This course is intended for students who want to learn about the Internet system architecture, language and vocabulary. Some lectures will be demonstrated on the Internet. Homework assignments may require students having access on the Internet. Also listed as CAOT 490. Transfer credit: CSU.

TCOM 665 SELECTED TOPICS IN TELECOMMUNICATIONS (.5 or 1 or 1.5 or 2)
(Credit/No Credit or letter grade)
Eight lecture hours for each .5 unit.
Designed to develop specific skills that are utilized in the telecommunications or the Network Information industry. Transfer credit: CSU.