Los Angeles 50TH YEAR

Pierce College

6201 Winnetka Avenue Woodland Hills, CA 91371

For Faster Service Find the Proper Office Listed Alphabetically Below

For Offices Not Listed Call Campus Operator at **(818) 347-0551** or (805) 495-0050

All numbers listed below are (818) area code

ADMINISTRATIVE AND CAMPUS SERVICES

Admissions	719-6404
Assessment Center	719-6499
Associated Students	719-6411
Athletic Director	719-6421
Bookstore Information	347-0313
Building & Grounds	719-6441
Bull, The	719-6427
Business Office Information	710-0497
Career Center	719-6436
Child Development Center	719-6494
Community Services	719-6425
Cooperative Education	719-6434
Counseling	719-6440
EOP&S	719-6422
Financial Aid	719-6428
Foreign Student Advisor	719-6417
GAIN	719-6400
Graduation	719-6416
Handicapped Services	719-6430
Health Center	347-0551 ext. 270
Interpreter Services for Deaf	719-6430
Learning Center	710-4290
Library	719-6409
Library, Periodicals	719-6410
Lost & Found	719-6450
Matriculation	719-6449
Media Center	719-6424
Museum, Natural Sciences	719-6465
Performing Arts Building	719-6488
Personnel	719-6407
Placement	719-6454
Plant Facilities	719-6441
Police	719-6450
President	719-6408
Purchasing	719-6431
Receiving	719-6445
Records	719-6404
Relations With Schools	719-6406
Roundup	719-6427
Safety & Police	719-6450
Scholarships	719-6422
Special Services	719-6430
Student Activities	719-6418
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Student Services	719-6419
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Speech Communication	710-4296
Theater Arts	719-6488
Theater Arts-Shop Office	719-6487
Welding	719-6484
Woodworking	719-6474

Los Angeles **Pierce College**

A Community College In The San Fernando Valley

One Of Nine Los Angeles Community Colleges

General Catalog

1997-1998

Volume 51

Los Angeles **Pierce College**
6201 Winnetka Avenue
Woodland Hills, California 91371
(818) 347-0551

Pierce College is a tax-supported educational institution which offers post-high school opportunities for men and women and is administered by the Los Angeles Community College District.

Accreditation

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

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Accuracy Statement

The Los Angeles Community College District and Los Angeles Pierce College have made every effort to make this catalog accurate and may, without notice, change general information, courses, or programs offered. The reasons for change may include student enrollment, level of funding, or other issues decided by the district or college. The district and college also reserve the right to add to, change, or cancel any rules, regulations, policies and procedures as provided by law.

Los Angeles Community College District

770 Wilshire Boulevard
Los Angeles, California 90017
(213) 891-2000

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Nondiscrimination Policy

All Programs and activities of the Los Angeles Community College District shall be operated in a manner which is free of discrimination on the basis of race, color, national origin, ancestry, religion, creed, sex, pregnancy, marital status, medical condition (cancer related), sexual orientation, age, disability, or veterans status (Reference: Board Rule 1202).

Equal Opportunity Policy Compliance Procedure

In order to insure Equal Opportunity Policy Compliance at Los Angeles Pierce College, please direct inquiries to the College Compliance Officer Phillip Pearson at (818) 710-4206. In addition, inquiries may be directed to An Bergo at the District Office of Affirmative Action at (213) 891-2000, ext. 2315.

Regla de No Discriminación

Todos los programas y actividades del Los Angeles Community College District se implementan de manera que sea libre de discriminación a base de raza, color, nacionalidad, antepasados, religión, credo, sexo, embarazo, estado civil, condición médica, orientación sexual, edad, incapacidad o si sea o no sea veterano (Referencia: Regla 1202 de la Junta).

Política de Acuerdo con los Procedimientos de Igualdad de Oportunidades

Para poder asegurar igualdad de oportunidades en Los Angeles Pierce College, por favor dirija sus preguntas a Phillip Pearson (818) 710-4206.
Además, Puede también dirigir sus preguntas a An Bergo en la oficina de Acción Afirmativa del Distrito, teléfono (213) 891-2000, ext. 2315.

A Message From The President

The new academic year is a door; one that opens to a multitude of possibilities for growth, a changed perspective, or the attainment of a cherished goal.

The academic year may also be, to use a relatively new cliché, a window of opportunity, that can be taken full advantage of, or allowed to close, along with the opportunities that will never again return.

The decision is yours: seize it, and make it serve your purpose, whatever academic or job training purpose you have in mind. Or, let it pass you by.

This catalog is actually a collection of many windows of opportunities disguised as different programs and courses. The clearer you are about your goals, the easier it is to use to help yourself. Check it out, carefully.

If, perchance, you are not quite clear about your goals, this catalog can still help you. Look under "Counseling Services."

My very best to you for this semester.

E. Bing Inocencio, Ph.D.
President

General Information

College Information

History of the College

Los Angeles Pierce College has been a landmark in the West San Fernando Valley for 50 years. In December 1943, 392 acres of land set in rolling hills was purchased to establish the Clarence W. Pierce School of Agriculture named after the Los Angeles City Board of Education member instrumental in forming the new college over the objections of many who thought the West Valley too rural to support a learning institution.

The first classes at Pierce, which were designed to provide technical and practical agricultural training, began in the fall of 1947 under bare light bulbs in makeshift classrooms created from quonset huts salvaged from World War II. The College's first students, 212 World War II veterans (77 full-time and 135 part-time male students) enrolled in 46 courses and weathered the sun, the winds, power failures, floods, and mud.

Community pressures and demands soon caused the College to broaden its educational scope and also to admit women in February 1951. In the summer of 1956, by official action of the Board of Education, the College name was changed to Los Angeles Pierce College. Under this new name, the College continues as one of nine colleges in the Los Angeles Community College District.

As the College has built permanent classrooms, laboratories, and athletic facilities, the surrounding land has also developed. Now Warner Ranch, the last remaining farmland to the west, has been replaced by a well-planned business park and shopping centers.

Today the College serves a highly literate population, preparing students to take their place or to retrain in other industries at the forefront of technological advances. The College remains unique to the greater Los Angeles area because of its farm and its instructional program in agriculture, natural resources management, animal health technology, and related fields, but may be best characterized by its broad range of instructional programs. Students may also choose to pursue a program in liberal arts and sciences and then transfer to a four-year college or university, or they may select from 50 occupational fields including computer technology, journalism, nursing and allied health, office administration, welding, numerical control, and quality assurance.

Complementing the instructional programs are community services workshops for adults and children on topics of the day.

College Campus

Pierce College is located on 427 acres in the western San Fernando Valley. Founded in 1947 as an agricultural college, large sections of tillable and range land have been preserved as an enclave within a suburban environment. The College maintains herds of cattle, sheep, and swine, as well as orchards of citrus and other deciduous trees. Part of the college land, Canyon de Lana, located in the northern end of the Chalk Hills, has been set aside as a nature preserve. This area of campus also serves as a feeding ground for large flocks of Canada geese during the winter months.

Besides classrooms and laboratories, the College maintains many special facilities to supplement its educational and extracurricular programs. Athletic facilities include a stadium, baseball field, tennis courts, swimming pool, and an equestrian arena. The College is also proud of its library, Learning Center, writing and math labs, Career Center, Campus Center, cafeteria, bookstore, and Performing Arts Building. Most college facilities are accessible to students with physical handicaps.

The College Colors

The College colors, selected by the students of Pierce College in 1947, are scarlet and white.

Regular Program

The regular program consists of two semesters, generally 20 weeks in length. Classes are scheduled from 7 a.m. to 10 p.m. There are also Saturday offerings. All college classes are open to regularly enrolled students.

Courses in the late afternoon and evening are designed to meet community needs for specialized vocational and general education courses, as well as courses which transfer to four-year colleges and universities. These classes are taught by the regular college faculty and experienced instructors from all the instructional disciplines.

Summer Session

Summer Session will be offered subject to approval by the Board of Trustees.

Library

The Pierce College Library contains a collection of over 100,000 volumes, including books and materials required for supplementary study, and a representative collection of recreational reading material. The Library subscribes to almost 400 periodicals and newspapers, and has an extensive microfilm and microfiche collection. The public access catalog, current indexes, and INFOTRAC help locate information to be found in books, magazines, and pamphlets. Professional librarians are always available to assist Library patrons.

The Library is centrally located on the main campus mall. The building was completed in 1961 with facilities augmented in 1979. The addition brought stack capacity for books up to 120,000, provided for an enlarged and improved periodicals room, increased seating capacity by 200 stations, and offered students other conveniences such as group study areas and a typing room. A brochure is available to help students get acquainted with Library resources. Those who want to learn more about library research methods may be interested in a self-paced one-unit course offered by the Library. Further information is available in the Library.

Educational Philosophy

The Los Angeles Community Colleges affirm the principle that individuals should have opportunities to develop to their full potential. To that end, our main responsibility is to students and to the provision of education which benefits students and enables them to contribute to society.

Our colleges, therefore, should be accessible to all individuals who have the capacity and motivation to profit from higher education. Curricula and services of our colleges should provide means for fulfilling the promise of open access. We recognize the necessity to adapt to the changing educational needs of the Los Angeles Community Colleges' communities and to the growing diversity among our students. The quality of the educational experience is to be judged by its value to students and the community, not merely by quantitative measures. We further recognize that academic freedom is essential to excellence in education.

The mission of the Los Angeles Community Colleges is to provide comprehensive lower-division general education, occupational education, transfer education, transitional education, counseling and guidance, community services, and continuing education programs which are appropriate to the communities served and which meet the changing needs of students for academic and occupational preparation, citizenship, and cultural understanding.

In pursuit of this mission, we endeavor to:

- promote equal opportunity for participation;
- maintain appropriate standards for academic achievement;
- provide an educational environment which meets the needs of students with varied learning skills;
- provide support services which contribute to instructional effectiveness and student success;
- affirm the importance of multi-cultural, international, and inter-cultural collegiate experiences that foster individual and group understanding;
- manage effectively educational and financial resources.

Limited English Proficiency

Occupational education classes are open to all students. Although the lack of proficiency in English is no barrier to enrollment in occupational education courses, it is suggested that students deficient in English utilize the services of the College that are provided for persons who are limited in English proficiency.

Functions Of The Community Colleges

To accomplish the educational philosophy and mission of the Los Angeles Community Colleges, Los Angeles Pierce College offers the following types of educational programs.

TRANSFER. A college transfer program which enables the student who completes two years of study to continue into upper division work at accredited four-year colleges and universities through careful and continuous articulation with accredited collegiate institutions and high schools.

OCCUPATIONAL. An occupational education program planned to offer the student basic business, technical, and professional curricula to develop skills which can lead to employment, job advancement, certification, or the associate degree.

GENERAL EDUCATION. A program of general education comprised of associate degree programs and other planned experiences which develop knowledge, skills, and attitudes necessary for the student to be effective as a person, a member, a worker, and a citizen, thereby enhancing the quality of life for the individual and for the society at large.

TRANSITIONAL EDUCATION. A program of remedial and basic skills education for students needing preparation for community college level courses and programs; and English as a Second Language instruction for immigrants, foreign students and other students with limited English proficiency.

COUNSELING AND GUIDANCE. A counseling and guidance program incorporating academic, career, and personal counseling and assistance in matters of admissions, financial aid, job placement and student activities; to assist the student in the establishment of educational goals and in the selection and pursuit of a life work compatible with his or her interests, aptitudes, and abilities.

CONTINUING EDUCATION. A program of continuing education comprised of graded and ungraded classes to provide opportunities for personal and occupational competence that supplement formal full-time college attendance.

COMMUNITY SERVICES. A program of community services offered to meet the needs of the community for vocational and recreational courses, community and cultural events, and civic functions, completely financed by fees charged those in attendance.

JOINT PROGRAMS. Joint programs with business, industry, labor, education, government and other institutions which are of mutual benefit to sponsoring institutions, enhance the educational opportunities of program participants, and advance the mission and functions of the District.

College Goals

Below are listed the various aspects of campus life that Pierce College believes to be important, and our aspirations with regard to each.

CAMPUS: To preserve the central campus bordered by Winnetka, Victory, De Soto, and Oxnard for the support of existing and future college programs.

COLLEGIALITY: To nurture a feeling of belonging, involvement, and sharing in the process necessary to reach college goals and personal fulfillment.

COMMUNICATION: To improve the communication network to enhance understanding, participation, and decision making.

COMMUNITY INVOLVEMENT: To work with the community as educator, as provider of services, as neighbor, and as a partner in community development.

CULTURAL CENTER: To further develop the variety of high visibility performing and visual arts while integrating our activities with the cultural development of the West San Fernando Valley.

DECISION MAKING: To develop and implement a plan to distribute and decentralize decision making to its most effective level.

ENVIRONMENT: To improve the appearance, safety, comfort, and cleanliness of the campus, while preserving a rural atmosphere.

EQUIPMENT: To develop and implement a coordinated plan to acquire state-of-the-art equipment through fund raising, VATEA, grant proposals, industrial liaisons, and non-traditional sources.

FACILITIES: To maintain a facilities plan to meet the needs of the College.

MANAGEMENT: To develop and implement a strategic management plan to be used in program evaluation and resource allocation.

MARKETING: To attract the community to the many opportunities and quality programs of the College.

OCCUPATIONAL EDUCATION: To provide up-to-date and comprehensive occupational programs so that students can become valued employees.

STAFFING: To maintain a functional level of staffing in academic programs and support services in accordance with affirmative action principles.

STUDENT CAMPUS LIFE: To encourage students and student organizations to assume academic, social, cultural, and recreational responsibilities.

TRANSFER EDUCATION: To maintain a transfer education program from which students can transfer to a university with full academic parity.

Advisory Committees

Advisory Committees lend assistance to the College in the development of occupational programs that will prepare students for useful and productive lives. The committee members make known the occupational needs as they pertain to employable skills in the specific occupation and in the geographic area of the College, and report on changing technology as it might affect the College programs.

Advisory Committees are extremely important in the development of a two-way system of understanding and communication and for the partnerships that are necessary between the College and the community.

Affirmative Action

The policy of the Los Angeles Community College District is to implement affirmatively equal opportunity to all qualified employees and applicants for employment without regard to race, color, national origin, ancestry, religion, creed, sex, pregnancy, age, disability, marital status, medical condition (cancer related), sexual orientation, or veteran status. Positive action will be taken to ensure that this policy is followed in all personnel practices, including recruitment, hiring, placement, upgrading, transfer, demotion, treatment during employment, rate of pay or other forms of compensation, selection for training, layoff, or termination. A vigorous Affirmative Action Program will be maintained to ensure appropriate utilization of certain protected groups in specific areas and levels within the district workforce through the implementation of specific result-oriented procedures and activities (Board Rule 101301).

Inquiries regarding Affirmative Action at Los Angeles Pierce College should be directed to the College Compliance Officer, Phillip Pearson, at (818) 710-4206.

Sexual Harassment Policy

The Los Angeles Community College District has a policy which provides formal and informal procedures for resolving complaints. Copies of the policy and procedures may be obtained from the Compliance Officer Phillip Pearson at ext. 206, or by calling the Office of the Vice Chancellor of Educational Services at (213) 891-2279, or the District Office of Affirmative Action Programs at (213) 891-2315.

It is the policy of the Los Angeles Community College District to provide an educational employment, and business environment free from unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct or communications constituting sexual harassment. Employees, students, or other persons acting on behalf of the District who engage in sexual harassment as defined in this policy or by state or federal law shall be subject to discipline, up to and including discharge, expulsion or termination of contract.

Academic Freedom

Academic freedom insures the faculty's right to teach and the student's right to learn. The discussion of sexual ideas, taboos, behavior or language which is an intrinsic part of the course content does not constitute sexual harassment. The Board of Trustees reaffirms its commitment to academic freedom, but recognizes that academic freedom does not allow discriminatory or harassing conduct.

Definition of Sexual Harassment

Harassment occurs when unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature:

1. Is made either explicitly or implicitly a term or condition of an individual's employment, academic status, or progress;

2. Has the purpose or effect of having a negative impact upon the individual's work or academic performance, or creating an intimidating, hostile, or offensive work or educational environment;
3. Is used as the basis for employment or academic decisions or any decision affecting the individual regarding benefits and services, honors, programs, or activities available at or through the District, regardless of submission to or rejection of such conduct.

For the purpose of further clarification, sexual harassment may include, but is not limited to the following type of conduct:

- making unwelcome, unsolicited written, verbal, physical and/or visual contact with sexual overtones
- verbal harassment or abuse
- unwelcome pressure for dates
- disparaging remarks about one's gender
- sexist jokes about one's clothing, body, or sexual activities
- deliberate blocking of physical movement
- obscene gestures
- demands for sexual favors accompanied by implied or overt threats
- display of sexually suggestive objects, cartoons, posters
- request for sex in exchange for grades, earned or deserved, letters of recommendation, employment opportunities
- making reprisals, threats of reprisal, or implied threats of reprisal following rejection of harassment by suggesting or actually withholding grades, promotion recommendation, scholarship recommendation or a poor performance evaluation

Complaint Procedure

When an employee, students, or other individual feels, perceives, or has actually experienced conduct that may constitute sexual harassment, it is that person's responsibility to inform the individual engaging in such conduct that the behavior being demonstrated is offensive and must stop.

When it is not possible or practical to confront the person directly, or if the situation continues, the conduct must be reported to the Sexual Harassment Compliance Officer at the work site.

Complaints may be filed by persons other than the person who is the recipient of the unwanted conduct.

The Sexual Harassment Compliance Officer shall receive the complaint, make notes, conduct a preliminary investigation, and notify the alleged offender, the appropriate college President or District administrator, and the Director of the Office of Affirmative Action Programs, within five (5) business days of a potential violation of this policy.

During the process of the investigation, the complainant/victim and the alleged offender have the right to be represented, at all times, by a representative of their choice.

Each college President shall designate a Sexual Harassment Compliance Officer. The Chancellor shall designate the SHCO at the Educational Services Center.

Each college President, in consultation with the ASO President, shall designate an employee who shall serve as Advocate for Students.

The District shall provide annual notice of the summary of this policy to each District employee. A summary of the policy shall be published in each college catalogue and class schedule.

The Director of the Office of Affirmative Action shall be assigned the responsibility of the District compliance. The Director shall provide **mandatory** education and training programs on sexual harassment as stipulated in this policy.

Necessary forms to file a complaint of sexual harassment may be obtained from the Sexual Harassment Compliance Officer at the site, and from the Office of the Dean of Students. Anyone who believes that they are a victim of sexual harassment may also call (213) 891-2315.

The entire policy and procedures shall be prominently posted with other official District announcements.

Pre-Complaint Questionnaire

Prior to filing a formal complaint, the complainant must pursue informal resolution by filing a pre-complaint questionnaire. This process is limited to 30 days.

False Allegations

Anyone who files a pre-complaint questionnaire or a complaint in which he/she knowingly makes false allegations of facts shall also have violated this policy and shall be subject to applicable disciplinary action.

Formal Complaint

If an informal resolution is not reached within thirty (30) days the formal process will begin at the request of the complainant. In conducting the investigation, the Sexual Harassment Compliance Officer will take every reasonable step to ensure due process for all parties. The Compliance Officer shall, within the prescribed time frame, make appropriate notification to the complainant, the alleged offender, and to the District administration.

Within sixty (60) calendar days the SHCO shall complete the investigation and provide a written report to the college President at his/her college site, or at the District Office, the Vice Chancellor or the Chancellor. A copy of the report shall be sent to the Director of the Office of Affirmative Action Programs.

The college President, or at the District, the Vice Chancellor or the Chancellor, shall independently assess the investigative report and render a decision. Prior to making the decision, the alleged offender with a representative of his/her choice shall have the opportunity to make an oral statement, within fifteen (15) calendar days from the receipt of the SHCO report.

By certified mail, a written decision shall be mailed to the complainant, the alleged offender, with a copy to the Director of the Office of Affirmative Action Programs.

Appeal

If the complainant/victim is not satisfied with the Written Decision, he/she may appeal to the District's Board of Trustees by submitting a written appeal to the Chancellor's Office within fifteen (15) days. The appeal shall state with particularity the basis for the appeal.

The Chancellor shall present the written appeal, the Written Decision and the investigative report to the Board of Trustees in closed session. The Board of Trustees decision shall be the District's Final Written Decision.

The complainant/victim has the right to file a written appeal with the State Chancellor's Office of the California Community Colleges within thirty (30) days of this Final District Decision.

Additional Remedies

The complainant or alleged victim may pursue independently civil law remedies, including but not limited to injunctions, restraining orders, or other orders. An individual who believes that he/she is the victim of sexual harassment may also file a complaint with the Department of Fair Employment and Housing, The Equal Employment Opportunity Commission, the Office for Civil Rights, United States Department of Education, whether or not the complainant chooses to utilize the District's internal procedure.

Confidentiality

All persons involved in investigation of complaints shall maintain the confidentiality of the matters discussed, except as may be required or permitted by law, which include the rules and regulations of the District.

A complete record of each complaint and investigation shall be kept by the Director of the Office of Affirmative Action Programs.

The Written Decision regarding the results of the investigation shall be placed in the personnel file of each employee involved as an alleged offender, alleged victim or complainant.

Disciplinary Procedure

Disciplinary action, if any, shall be pursued in accordance with the alleged offender's due process rights, as defined by law, the Board Rules, the Personnel Commission, and/or any applicable collective bargaining agreement or Memoranda of Understanding.

Disciplinary action shall include, without limitation, verbal warning, probation, suspension or expulsion, letters of reprimand, Notices of Unsatisfactory Service, suspensions, demotions or dismissals.

Retaliation

Anyone who makes a complaint, or participates in any action authorized under this policy, shall not be subject to retaliatory action of any kind by any employee or student of the Los Angeles Community College District.

Sexual Assault

The Los Angeles Community College District is committed to providing a safe environment for its students, faculty, and staff. The Los Angeles Community College District Board of Trustees condemns any act of sexual assault committed on any of its facilities. In the event of sexual assault committed on grounds or in facilities maintained and/or used by the District, any victim of a sexual assault who is one of the District's students, faculty, staff, or visitors shall promptly receive appropriate treatment and full and accurate information. Individuals who commit sexual assault while on properties within the control of the District shall be subject to appropriate criminal prosecution and/or District disciplinary procedures.

Confidentiality is fundamental to all aspects of cases dealing with sexual assault. The names of sexual assault victims shall not be revealed by persons responsible for implementing and enforcing the provisions of this Chapter, except with the consent of the victim.

Instructional Alternatives

Honors Program

The Pierce College Honors Program is designed for serious, motivated students. The program offers approximately 10 academically enriched general education courses each semester. These courses are challenging and enhance the academic skills necessary for successful transfer. For further information see the current Schedule of Classes or call (818) 719-6485.

Eligibility

There are two basic eligibility requirements: grade point average and college-level writing ability. High school graduates need a 3.0 cumulative GPA, and Pierce students need a 3.0 GPA. in all course work including 12 or more UC-transferable units. All students must qualify for College English (English 101) either by scores on the English placement test or by passing prerequisite courses.

Transfer

Honors Program students successfully transfer to colleges and universities across the country. However, we have a special arrangement with the UCLA Transfer Alliance Program. Students who complete at least 60 units in a pattern that satisfies both the UC lower division and major course requirements, complete at least eight (8) Honors classes or 24 Honors units within these 60 units, and maintain an overall grade point average of 3.25, are eligible for the TAP certification.

Satisfactory completion of the above guarantees priority consideration for admission to the UCLA College of Letters and Science with junior standing. Similar agreements with Chapman University, Occidental College, Pepperdine University, Pomona College, UC Irvine, UC Santa Cruz, UC Riverside, and USC are available.

Application

To be admitted to the Honors Program you must meet the above eligibility requirements, file a completed Honors Program application, send an official copy of all high school transcripts to the Honors Program Office, and take the English placement test . Applications are available in the Honors Program Office, ADM 1027.

Program Benefits

Students in the Honors Program have early bookstore privileges, special Honors counseling, and recognition both on the transcript and at graduation.

In addition, Honors classes are limited to twenty-five students. All Honors students also receive the special services provided by membership in the UCLA Transfer Alliance Program whether or not they are planning to transfer to UCLA. These services include a free UCLA College Library card, tickets to cultural events, and much more. USC and Pepperdine also offer tickets to cultural events.

Instructional Television (ITV)

Each semester, the District-wide Instructional Television program of the Los Angeles Community College District presents, via television, a variety of transferable undergraduate level college credit courses.

Instructional Television courses are convenient, flexible and especially suitable for college students needing to supplement their on-campus program or to add classes for those times when campus attendance is not possible.

Students enroll by the telephone registration system or by mail, view telecourse lessons at home or at a Campus Learning Resource Center, complete reading and study assignments, attend seminars held on weekends at a Los Angeles Community College near their home, and take a midterm and final exam.

An instructor with office hours and phone times is assigned to each telecourse. The students enrolled in Instructional Television classes keep in touch with faculty by telephone, voice mail, e-mail, U.S. mail, and fax, as well as at the seminars. Interested students are invited to contact Instructional Television or visit the office located on the campus of Los Angeles City College, Bungalow 120, 855 North Vermont, Los Angeles, California 90029. Call (213) 953-4488 or (818) 901-8935 for information.

International Education Program Study Abroad Classes

College credit classes are offered for the Los Angeles Community College District by the International Education Program. With instructors selected from all nine colleges in the District, classes are taught in over twenty countries around the world. Scheduled at various times throughout the year, opportunities for study currently include Spanish language and civilization, history, and art instruction in Mexico and Spain; French, French Civilization and art in Paris; Italian, Italian Civilization and art in Italy; Marine Biology in Mexico; and theater in England. On-site investigation of the history and culture of other nations provides students and their instructors with some of the best educational experiences of their lives. The LACCD is a member of California Colleges for International Education, a consortium of colleges offering semester programs in Paris, England, Germany, Mexico, Japan, China, and Spain. The International Education Program also cooperates with the Community Services Programs at District Colleges in offering non-credit travel study programs.

The International Education Program expresses the shared commitment of the Los Angeles Community Colleges in furthering the development of international and intercultural awareness. Call (213) 891-2282 for further information.

The Pierce College Extension Program

Pierce Extension is the educational outreach program of the College offering community, continuing, and contract education classes as well as cultural and recreational activities through the Office of Community Services on a not-for-credit basis.

Community Education provides opportunities for personal and professional development, skill improvement and upgrading, cultural enrichment and recreational enjoyment for all ages.

Continuing Education, a community-based program, emphasizes lifelong personal and professional growth.

Contract Education offers personalized, quality classes and timely workshops to local business and industry on campus or at the workplace. This program can augment a company's current training program or develop specialized classes to meet professional needs.

These activities are offered in addition to Pierce College's instructional program and are not academic equivalents of regular credit classes or prerequisites for the traditional college program. Most programs are supported by participant fees and receive no direct general purpose tax funds.

Through the Extension Program, Pierce College hopes to serve your interests, and through you, our whole community. For a Calendar of activities or further information, please contact the Community Services Office at (818) 719-6425.

PACE

Project For Accelerated College Education

The Full-Time College Transfer Program For Working Adults

- Earn from 12-14 units of transferable college credit each semester.
- Choose to attend classes at Pierce or at a convenient off-campus location.
- Complete an associate in arts degree in just two years.
- Upon completion of the PACE program you can transfer to any UC, CSU and many private colleges and universities. It is up to you.

The PACE Program is a selection of academic courses presented in an accelerated nine-week format designed to fit the needs of today's busy adult students. PACE students attend classes in the evening and on regularly scheduled Saturdays each quarter. Additionally, they view one hour per week, per class, of video programming intended to enhance their learning experience.

There are three options available to PACE students:

1. The Business Option designed to fulfill the certification and major requirements (Business Administration) for transfer to any California State University and most private universities;
2. The General Studies Option which satisfies the General Education transfer requirements (major requirements can be taken outside of PACE) for all University of California, California State University, and most private universities; and
3. The Teacher Preparation Option which meets the lower-division transfer requirements for a California State Elementary Education teaching credential and transfer to a California State University Liberal Studies Credentialing Program.

PACE classes are presented in an interdisciplinary and integrated format. They meet from 6:00 - 10:00 p.m. on Tuesday, Wednesday, or Thursday evening on-campus or at one of our convenient off-campus locations. All Saturday meetings take place on the Woodland Hills campus from 8:00 a.m. - 5:00 p.m.

Students can enroll in the program prior to the beginning of any nine week term. It is required that all in-coming PACE applicants complete the following steps:

1. Complete and file an Application for Admission to the college;
2. Complete and file a PACE Program Application with the PACE Program Office;
3. Take the College English and Math Placement Tests. Enrollment in the program requires placement in English 101. However, if you do not place in English 101 and/or Math 125, PACE offers PACE offers a Bridge Program designed to help you reach these levels quickly;
4. Attend one of the PACE advisement sessions;
5. Enroll in your classes.

For further information, please contact the

Program Office

at 818-719-6485 or

campbed@laccd.cc.ca.us

Admission & Registration Information

Admission Eligibility

Persons who possess a high school diploma or its equivalent meet the basic eligibility requirement for admission to any public California two-year community college.

Persons who do not possess a high school diploma or its equivalent but who meet additional criteria are also eligible for admission if in the judgment of the College Admissions Officer they are capable of profiting from the instruction offered.

Additional eligibility criteria include:

1. Persons who are eighteen (18) years of age.
2. Persons who are apprentices, as defined by Section 3077 of the California Labor Code.
3. Persons in grades K-12, under special circumstances.

Information regarding other eligibility criteria and/or admission procedures is available in the Office of Admissions and Records.

International Student Admission

International students may be accepted to Pierce College for either Fall or Spring Semester. The forms required for admission are available in the International Students' Office in the Campus Center. Each applicant must provide evidence of a TOEFL score of 500 or completion of ELS Level 109 or completion of Level 9 through the ESL Division at California State University, Northridge, a college application, a statement of financial support, and a complete set of transcripts. A non-refundable $35 processing fee must accompany each application . The deadlines for submission of these materials are November 15 for spring semester and June 15 for fall semester; for out-of-country applicants. Persons who are in the United States may submit applications at a later date. July 15 for fall semester and December 7 for spring semester.

Upon receipt of these application materials, a decision regarding admissibility is made, and an I-20 is issued to the applicant. The student must present the I-20 to either the Immigration and Naturalization Service (when changing visas) or to a United States Embassy or Consulate (when the student is out of the country) in order to obtain an F-1 Visa. Immigration regulations require that all F-1 Visa students must be enrolled in a minimum of 12 units each semester.

Any F-1 Visa student who is not enrolled in 12 units is considered "out of status" and jeopardizes his/her stay in the United States.

Information regarding international student admission or immigration regulations pertaining to F-1 student status may be obtained through the International Students' Office.

See also International Students Program, page 38.

Procedures For Admission And Registration

Admission

The following procedures must be followed by all students, day or evening.

1. **Submit an Application for Admission.** Application forms are available at the Information Desk beginning on the first day of each application period. Applications are accepted as indicated in the schedule of classes. See the College Calendar in the schedule of classes for deadlines for the submission of applications.
   a. **Provide a Social Security number on the application form.** The Los Angeles Community College District maintains a student record system that uses the Social Security number to identify an The Los Angeles Community College individual's record. However, if students do not wish to report their Social Security numbers, an alternate identification number will be assigned by the College. Changes in a student's ID# may be made only in the Admissions Office. All future correspondence and requests for transcripts and other information must include this number. Social Security numbers, like all other student information, are confidential and will be used only as identification numbers.
   b. **Complete all required information.** All information requested on the application must be provided. The applicant must declare under penalty of perjury that all information on the application is correct. All information is subject to verification; falsification or withholding of information shall constitute grounds for dismissal.
2. **Take the Chemistry Placement Test.** Required only of students who wish to enroll in Chemistry 1, General Chemistry I, as their first chemistry course at Pierce College.
3. **Take the Physics Placement Test.** Required of all students planning to enroll in Physics 1 unless the student has completed Physics 6 with a grade of "C" or better.
4. **Take the English and math placement tests.** These are required for enrollment in entry-level English and math courses.
5. **Attend an advisement session.** A counselor will explain college and transfer requirements and help you plan your schedule.
6. **Register for classes by telephone.**

English Placement Test

The results of the English Placement Test or a valid English Enrollment Authorization Form must be on file in order to enroll in English 20, 21, 28 or 101, 102, 103, English 81, 82, 84-87, or English 101, 102, 103. Authorizations for students registering by telephone will be checked automatically on-line.

All students planning to enroll in an English course for the first time are expected to take the English Placement Test at the Pierce College Assessment Center (Campus Center). Contact the Assessment Center at (818) 719-6499 for an appointment and sample test information. Placement results or prerequisite courses taken at other colleges may be presented to the Assessment Center to be substituted for the Pierce English Placement Test.

Placement recommendations made by the English Placement Test are advisory and intended to assist students with enrolling in classes where they are most likely to succeed. Upon completing the test, students are advised of their recommended placement and given their authorization to enroll. Students seeking authorization to enroll in a course other than that recommended by the assessment test must meet with an English department advisor.

Students need to provide evidence of prerequisite completion either through coursework in the Los Angeles Community College District, by taking the Pierce English Placement Test, or through transcripts from other schools presented at the Assessment Center.

Mathematics Placement Test

All students who have not completed a college mathematics course must take an appropriate Mathematics Placement Test at the Pierce College Assessment Center (Campus Center). Contact the Assessment Center at (818) 719-6499 for an appointment and sample tests. Review is essential because the test cannot be taken again for six months.

Placement tests are given at four levels: Algebra Readiness, Elementary Algebra, Intermediate Algebra, and Precalculus. Upon completing the test, students are advised of their recommended placement and given an authorization to enroll in that course. Students who wish to challenge the recommendation of the assessment test should consult a Mathematics Department advisor.

Residence Requirements

California Residence Requirement

To attend any of the Los Angeles Community Colleges as a resident of California, a student is required to have been a California resident for more than one year immediately preceding the Residence Determination Date. The "Residence Determination Date" is that day immediately preceding the opening day of instruction of the semester or summer session. Residence is defined as a union of act and intent.

Non-Resident

A non-resident student is one who has not had residence in the State of California for more than one year immediately preceding the Residence Determination Date. Residence is defined as a union of act and intent. Physical presence alone is not sufficient to establish California residency nor is intent when not coupled with continuous physical presence in the State. Certain non-U.S. citizens are permitted to establish residency and certain others are not. Check with the Admissions Office regarding your particular status.

A student classified as a non-resident will be required to pay non-resident tuition fees as established by the District Board of Trustees.

Residence Reclassification

Students who have been classified as non-residents must petition to be reclassified as residents before the start of any semester if they feel their status has changed. Non-resident students applying for reclassification as residents must also show financial independence for the past three years. The Residence Reclassification form is available in the Admissions Office and must be submitted prior to the semester in which reclassification as a resident is to be effective.

Residence Appeal

A student may appeal the residence classification determined by the College. The appeal must be made within 30 calendar days of receipt of notification of the residence classification from the Admissions Office. The appeal must be submitted in writing to the College Admissions Officer who will forward it to the District Residency Appeal Officer.

Matriculation

Matriculation - What is it?

Matriculation is a process designed to assist students in achieving their educational goal at Pierce College. It is an agreement between the College and the student. Pierce College agrees to provide an organized process of admission, orientation, assessment, counseling, and student progress follow-up. The student agrees to declare a specific educational goal, attend class, and complete all assigned coursework.

What is the purpose of Matriculation?

The purpose of Matriculation is to ensure that students complete their college courses, persist to the next academic term and achieve their educational objective. Matriculation provides students with easy access to the College's programs and services. These services can help you to have higher grades, complete more classes, and persist from semester to semester.

Who is eligible for Matriculation?

All first-time students who have declared a goal of earning a certificate, AA, or transferring are subject to matriculation.

Matriculation at Pierce College

Matriculation is a campus-wide program. Success is measured by the attainment of the student's stated educational goal or objective. The following are the components or steps of Matriculation:

Step 1: Assessment All students who go through the matriculation process take an assessment exam. This assessment takes 3 1/2 hours to complete and covers reading comprehension, grammar, essay writing, and math. The assessments are administered by the Assessment Center, and practice tests are available to help students prepare for the exam. The assessment tests help place students in classes where they are most likely to succeed. Placement recommendations are advisory and intended to assist students.

Step 2: Orientation At the time of your assessment testing, you will view an orientation video, which will provide you with information about the Pierce campus, including the College's programs, services, academic expectations, and institutional procedures. All new students are encouraged to sign up for Personal Development 1, an extended orientation class. Even if you did well in your high school courses, this course could benefit you!

Step 3: Counseling and Advisement All matriculating students are required to meet with a counselor, before registering, to develop a student educational plan (SEP). This plan is an educational blueprint that outlines exactly what courses you need to meet your educational goal. Undecided students are encouraged to register for a career counseling class (Personal Development 4 or 8) taught by a career counselor.

Step 4: Follow-up After enrolling for the first semester, you will continue to receive follow-up services through the Counseling Department, Career Center, and Early Alert program. These services will include help with planning your program for each semester that you are at Pierce, preparing to transfer, and earning an Associate degree. In addition, the Early Alert program helps identify students who begin encountering academic difficulty early in the semester.

Step 5: Matriculation Exemptions At the time of application, all students are classified as exempt or non-exempt from various matriculation components. Our exemption policy is listed below:

Assessment Exemption Criteria:

(1) Students who have already earned an A.A./A.S. degree or higher.

(2) Students who are attending Pierce with a goal of personal interest and who have completed fewer than 16 units of college credit.

Note: Students who have completed assessments or prerequisite courses at other colleges, and have presented this documentation for verification to the Assessment Center Director. (Note: Verification must be presented before an exemption can be granted).

Orientation Exemption Criteria:

(1) Students who have already earned an A.A./A.S. degree or higher.

(2) Students who are concurrently enrolled at a four-year college or university and who have completed fewer than 16 units of college credit.

(3) Students who are concurrently enrolled in the 12th grade or below and who have completed fewer than 16 units of college credit.

(4) Students who are attending Pierce with a goal of personal interest and who have completed fewer than 16 units of college credit.

Counseling/Advisement Exemption Criteria:

(1) Students who have already earned an A.A./A.S. degree or higher.

(2) Students who are attending Pierce with a goal of personal interest and who have completed fewer than 16 units of college credit.

Matriculation Waivers

Students wishing to waive any matriculation component should request a waiver form from the Assessment Center in the Campus Center. Please fill out the form, then return it to the Assessment Center. You will need to retain a copy of the waiver.

Alternative Matriculation Services

Pierce College provides the following alternative matriculation services:

1. If English is not your primary language, you may wish to take advantage of Language Assisted registration. Every day during registration, interpreters in Farsi, Korean, Spanish, and Vietnamese will be available to assist you with filling out registration forms.
2. In addition, Pierce is in the process of translating our application questions into various languages. At the present time, you may request information in Farsi, Japanese, Vietnamese, and Spanish at the Information Desk.

If you have a physical, visual, or communication limitation that might require special assistance for any matriculation component, please come to the Matriculation Office for more information on how the college can provide accommodations for you.

Students with complaints or challenges to any matriculation provisions may appeal to the Matriculation Coordinator in the Assessment Center or call (818) 719-6499 for more information.

Registration Policies

Registration

Registration is the process whereby the student is entered onto the College roll for the semester and is enrolled in specific classes. All students will be issued a Registration/Fee Receipt as the last step in the registration process.

Appointments to Register

Upon acceptance of a student's application and completion of matriculation requirements, new students will be issued a Permit to Register. The Permit will provide the student with an appointment to register into the College. Registration is by appointment only. Students are urged to file their applications as early as possible since appointments are given out on a first-come first-served basis.

Adding and Dropping Classes

Adding Classes

Only students who have been admitted to the college and are in approved active status may add or attend classes.

Admitted students who wish to add a class once the semester begins must obtain an add card from the instructor or the college Add Desk. It is the student's responsibility to have the add processed before the last day to add, which is listed in the college semester calendar.

Dropping Classes

Students wishing to drop one or more classes must do so through the Admissions Office by filing a DROP CARD or by using the STEP telephone registration system.

It is the student's responsibility to officially drop from class by submitting a drop card to the Admissions Office or using the STEP telephone system. Students must drop by the end of the second week of the semester to avoid fees. Any drops or exclusions that occur between the end of the 4th week (or 30% of the time the class is scheduled, whichever is less) and the end of the 14th week (or 75% of the time the class is scheduled, whichever is less) will result in a "W" on the student's record which will be included in the determination of progress probation. Drops are not permitted beyond the end of the 14th week.

A grade (A, B, C, D, F, CR, I, or NC) will be assigned to students who are enrolled past the end of the 14th week even if they stop attending class, except in cases of extenuating circumstances. After the last day of the 14th week (or 75% of the time the class is scheduled, whichever is less) students may withdraw from class upon petition demonstrating extenuating circumstances and after consultation with the appropriate faculty.

District Policies

Open Enrollment

Unless specifically exempted by law, every course for which State aid is claimed is fully open to any person who has been admitted to the College and who meets the appropriate academic prerequisites.

Course Prerequisites

It is the student's obligation to know and meet course prerequisites. These are stated in the catalog description of each course. The student will be required to file proof of meeting prerequisites. State law permits students to appeal any prerequisite based on the unavailability of the necessary course.

Credit for Prerequisites

Students may not concurrently enroll in and receive credit for an advanced course and its prerequisite(s). Students may not enroll in and receive credit for the prerequisite(s) to an advanced course if they have previously completed the advanced course.

Violation of this regulation will result in exclusion from class and/or denial of course credit.

Cancellation of Classes

The College reserves the right to discontinue any class with insufficient enrollment.

Pierce College Policy On Prerequisites, Corequisites, Recommended Preparation, And Limitations On Enrollment

The faculty has identified knowledge and skills that are necessary for success in certain classes. Each time you register, you need to determine if any courses you want requires previous knowledge. The catalog and schedule of classes use four terms to show if such knowledge is required:

PREREQUISITE: means a condition of enrollment that a student is required to meet in order to demonstrate current readiness for enrollment in a course or educational program (i.e., a course you must pass, or a requirement you must meet before enrolling in a given course). Students will not be permitted to enroll in such courses and programs without the appropriate prerequisite.

COREQUISITE: is a condition of enrollment consisting of a course that a student is required to take simultaneously in order to enroll in another course (i.e., a course you must take at the same time as another course.)

RECOMMENDED PREPARATION: means a condition of enrollment that a student is advised, but not required, to meet before or in conjunction with enrollment in a course or educational program (i.e., preparation that is helpful, but not required, before enrolling in a given course).

LIMITATIONS ON ENROLLMENT: A prerequisite necessary to protect a student's health and safety and the health and safety of others. (see prerequisite). Limitations on enrollment may also apply to certain courses (e.g., performance, honors, and special programs) if comparable courses are provided.

Unit of Work/Study Load

Study List Limitations

Maximum and minimum unit requirements may apply, as follows:

UNIT MAXIMUM. The maximum study load is 18 units during a regular semester and 7 units (or two classes) during a summer session. The normal class load for students in the fall or spring semester is from 12 to 18 units a semester for full-time students. A college program of 15 units is equal to at least a 50-hour work week for most students. Students who desire to take 19 or more units may file a Petition for Excess Units in the Associate Dean of Admissions Office during the week before the semester begins or the first two weeks of the semester.

Those students who will be employed while attending college should consider reducing their programs accordingly. It is suggested that those students who are employed full-time should enroll in no more than one or two classes or 9 units maximum.

Restricted Programs

Students may be required to enroll in a restricted program if their grades or test results indicate that this is in their best interest. The College may limit either the number of units in which a student may enroll or may specify certain subjects as a condition of enrollment. Students who violate such requirements will be subject to dismissal.

Concurrent Enrollment

Concurrent enrollment in more than one section of the same course during a semester is not permitted, with the exception of certain Physical Education classes on a limited basis.

Concurrent enrollment in courses which are cross-referenced to each other is not permitted (i.e., courses designated "same as" in the District Directory of Educational Programs and Courses). Violation of this regulation will result in exclusion from class and denial of course credit in both courses.

Enrolling in classes scheduled or conducted during overlapping times is not permitted. In addition to exclusion from both classes and denial of credits, violators will be subject to disciplinary action (See Standards of Student Conduct).

Auditing Classes

Students may be permitted to audit a class under the following conditions:

1. Payment of a fee of $15 per unit. Fees may not be refunded or transferred. Students enrolled in classes to receive credit for ten or more semester units shall not be charged a fee to audit three or fewer semester units per semester.
2. Students auditing a course shall not be permitted to change their enrollment in that course to receive credit for the course.
3. Priority in class enrollment shall be given to students desiring to take the course for credit.
4. Permission to enroll in a class on an audit basis is at the instructor's discretion.
5. Participation in class activities by student auditors will be solely at the discretion of the instructor, who may provide a written statement of the extent of participation allowed beyond observation.

Student Fees

Enrollment Fee

Enrollment fees are set by the California State Legislature and are subject to change.

Section 72250 and Section 72252 of the State Education Code requires Community Colleges to charge enrollment fees of each student enrolling in college. The fee prescribed by these sections is currently thirteen dollars ($13) per unit per semester with no maximum per semester. If you take ten units, the cost will be $130. If you take fifteen units, the cost will be $195 and so forth.

See page 17 for Fee and Refund Schedules.

If at the time of enrollment you are receiving benefits under the Aid to Families with Dependent Children Program, the Supplemental Security Income/State Supplementary Program, or the General Assistance Program, the enrollment fee will be waived. For information on the procedure for requesting a waiver, contact the Financial Aid Office prior to the date of your enrollment.

Financial aid may be available to students who meet the qualification requirements. Students with questions concerning financial aid eligibility should contact the College Financial Aid Office. Applications should be submitted as soon as possible.

Enrollment Fee Assistance

The college offers enrollment fee assistance to students who are unable to pay the enrollment fee. Students should complete the Board of Governors' **Enrollment Fee Waiver** application (available at the Information Desk in the Administration Building as well as the College Financial Aid Office) and submit it to the college Financial Aid Office for processing preferably **prior to enrollment in classes.**

The **Enrollment Fee Waiver** is available to students who receive Temporary Assistance for Needy Families (TANF) (formerly AFDC),General Relief (GR), or Supplemental Security Income (SSI), dependents of deceased or disabled veterans of the U.S. Military, and students whose household size and family income fall within the following limits:

Number in Household *(including yourself)*	**Total 1996 Family Income** *(Adjusted Gross Income and/or Untaxed Income)*
1	$ 7,500 or less
2	$15,000 or less
3	$16,000 or less
4	$17,000 or less
+	Add $1,000 for each additional dependent

Note: Students who qualify for the Enrollment Fee Waiver either by receiving benefits listed above or by household size and income level are also exempt from paying the health fee.

Students with financial need established by the College Financial Aid Office may also be eligible for deferment of enrollment and health fees.

Enrollment Fee Refund Policy

For full term courses: The student will receive a full refund up to the end of the second week of classes. After that date, there will be no refunds unless a class is cancelled or rescheduled by the College administration. After the second week of the semester, fees will not transfer when the student adds and drops, whether or not the student has paid. Students who enroll and do not drop classes by the end of the second week of the semester will remain liable for all fees.

For short term courses: The student will receive a full refund up to the end of a period of time equal to 10% of total class time. There will be no refunds after that, unless the student must drop a class because it is canceled or rescheduled by the administration.

Student Representation Fee

A $1 Student Representation Fee per semester that is due at the time of registration. The fee was established to provide for the support of student representatives involved in governmental affairs.

Non-Resident Tuition Fee

The 1995-96 tuition fee for non-resident students is $128 per semester unit for students who are non-residents from another state; $133 per semester unit for students who are non-residents from a foreign country. Tuition must be paid at the time of registration. This fee is subject to change each academic year.

Please note: Non-resident students are also required to pay the community college enrollment fee.

Students must drop classes by the refund deadline in order to avoid being charged the enrollment fee and the non-resident tuition fee. In addition, after the refund deadline, fees will not transfer when students add and drop classes, whether or not fees have been paid.

Non-Resident Tuition Refund Criteria and Schedule

Non-resident students who formally drop part or all of their enrollment may request a refund of previously paid non-resident tuition in accordance with the schedule below. Such requests must be made in writing on a form provided by the District.

The date used for non-resident refund purposes is the date on which such requests is filed and time stamped, regardless of when separation may have occurred. All non-resident refunds will be made by mail.

Non-resident refunds will be computed as follows:

CLASS TYPE	DATE REQUEST IS TIME STAMPED	REFUND
Regular Length (Fall, Spring, Summer)	Through second week of instruction	Full Tuition
	After second week of instruction	No Refund
Short Term (Less than regular length)	Through 10 percent of class length	Full Tuition
	After 10 percent of class length	No Refund

Parking Fee

A parking permit is required at all times when using campus parking facilities during regular school hours, 7 a.m. - 10 p.m., Monday through Thursday; 7 a.m. - 3 p.m., Friday; Saturday, 7 a.m. - 3 p.m.

The Board of Trustees of the Los Angeles Community College District has authorized parking fees for all on-campus parking at district colleges.

To encourage membership in the Pierce College Associated Students Organization, the College Administration has entered into an agreement with the ASO whereby individuals who both pay the District parking fee and join the Associated Student Organization will receive as a benefit of membership preferred parking privileges on campus. Students displaying a Preferred Student Parking Decal may park, if space is available, in all student parking lots, including the preferred lots (1, 6, and 7), as well as legally allowable street parking space. The non-preferred parking lots (permit required) are 1, 2, and 4.

Fall And Spring Semester Parking Permit Fees

Non-Preferred/Restricted District Permit	**$20.00**
A.S.O. Parking Fee	**$7.00**
Preferred/Non-Restricted Permit TOTAL FEE	**$27.00**
Charge to replace lost permit	***$20.00***

Summer Session Parking Permit Fees

Non-Preferred/Restricted District Permit	**$7.00**
A.S.O. Parking Fee	**$3.00**
Preferred/Non-Restricted Permit TOTAL FEE	**$10.00**

Parking fees may be paid prior to the completion of registration. Students who do not elect to purchase the permit at that time may do so at any time during the semester at the campus Business Office located next to the Bookstore.

Each student who pays the parking fees will be issued dry-mount parking decals. These decals are to be permanently attached to the **front windshield in the corner on the passenger side.**

It is the students' responsibility to make sure they know the current parking rules and regulations; if not sure, contact the Safety and Police Office. It is also the students' responsibility to make sure the current decal is visible to College Police Officers. The college is not responsible for lost permits under any circumstances.

Note: The issuance of a parking decal does not guarantee the student a parking space, only the opportunity to park in an appropriate lot if spaces are available. Any vehicle parked in the areas without the proper permit appropriately displayed will be cited.

SEE CLASS SCHEDULE FOR FURTHER INFORMATION.

Associated Student Membership Fee

Experience has demonstrated that student activities are essential features in the program of the College. These activities and programs are financed by money received from memberships in the Associated Students Organization. The charge is $7 per semester.

The funds thus collected will be spent for the general welfare of the students in accordance with policies, rules, and regulations defined by the Board of Trustees. Membership in the Associated Students Organization is encouraged for all students, but is not mandatory.

Upon complete withdrawal from the college, the student may receive a refund of the Associated Student membership fee as follows:

Fall And Spring Semesters

Amount Paid	1st Week	2nd Week
$7.00	$7.00	$7.00

Summer Session

Amount Paid	1st Week	2nd Week
$3.00	$3.00	-0-

Board of Trustees rules govern the collection, deposit and expenditures of these funds. All records are audited annually by representatives of the Board of Trustees.

Instructional Materials

Students may be required to provide instructional and other materials for a credit or non-credit course. Such materials shall be of continuing value to a student outside of the classroom setting and shall not be solely or exclusively available from the District.

Fee And Refund Schedule

TYPE OF FEE	AMOUNT	REFUND DEADLINE
Enrollment Fee	$13 per unit	End of the second week of the semester (Deadline for short term classes will be different for each class)
Non-resident Tuition *(All non-resident students must pay the $13 per unit enrollment fee in addition to non-resident tuition)*		
Students from another State:	$128 per unit	End of the second week of the semester
Students from another country:	$133 per unit	(Deadline for short term classes will be
International Student (F1 VISA) Application Fee:	$35	different for each class)
Health Services Fee	$7.50	End of the second week of the semester
Audit Fee	$15 per unit (Students who have enrolled in 10 units or more may audit up to 3 units without charge)	NOT REFUNDABLE OR TRANSFERABLE
Student Representation Fee	$1	End of the second week of semester when student withdraws from all classes
Parking Fee	$20	End of the second week of the semester
Associated Students Organization Membership Fee	$7	End of the first week of the semester - $7 End of second week - $5
Other Fees		
Emergency Processing of Transcript or Verification of Enrollment		$5
Verification of Enrollment		$1
Record of Work in Progress		$1
Transcript		$1

Please note that a $10 returned check charge is assessed for a check returned to the Business Office unpaid by the bank for any reason. A stop payment order on a check does not constitute an official withdrawal nor does it release the student's financial obligation for the fees. A student with an unpaid financial obligation will not be able to register for subsequent semesters.

Scholastic **Policies**

Attendance

Only students who have been admitted to the College and are in approved active status may attend classes.

Students should attend every meeting of all classes for which they register. To avoid being dropped from class, students should contact the instructor when they are absent for emergency reasons.

Students who are registered in a class and miss the first meeting may lose their right to a place in the class, but the instructor may consider special circumstances. During the first 14 weeks of the semester, whenever students have unexcused absences in excess of the number of hours the class meets per week, the instructor may exclude them from class. In addition, the instructor will consider whether there are mitigating circumstances which may justify the absences. If the instructor determines that such circumstances do not exist, the instructor shall exclude a student from the class.

Students are responsible for officially dropping a class that they stop attending. See section "Adding and Dropping."

Campus Procedure

Students who because of mitigating circumstances are unable to attend the first class meeting must leave a written message for the faculty member at the Information Desk in the foyer of the Administration Building. Telephone calls with such information will not be accepted.

Leave of Absence

A leave of absence is granted only by the instructor, and it is the responsibility of the student to satisfy the instructor as to the validity of the request for a leave of absence.

Withdrawal

Students intending to withdraw should avail themselves of the opportunity by first discussing the contemplated withdrawal with a counselor. Whether withdrawing from one class or all classes in which the student is enrolled, it is essential that standard withdrawal procedures be observed by filling out the proper forms in the Records Office.

Lecture and Laboratory Credit

In computing the number of units granted for any course, Pierce College follows the general practice of granting one unit of credit for each lecture hour per week on the semester basis.

The College requires two or more hours of attendance per week for each unit of credit for non-lecture periods (laboratory, field work, physical education) which require a minimum of outside preparation.

Final Examinations

Final examinations are to be given in all subjects according to the schedule printed in the Schedule of Classes. No student will be excused from taking a final examination.

All faculty shall retain the final exams of every student for a minimum of one year after the end of the semester for which the final exam was given in order to permit students to examine their graded final exams.

Grades & Grading Policies

Grading Symbols and Definitions

Only the symbols in the grading scale given in this section shall be used to grade all courses offered in fulfillment of the requirements for an associate or baccalaureate degree, a certificate, diploma, or license.

Grades shall be averaged on the basis of the point equivalencies to determine a student's grade-point-average, using the following evaluative symbols:

SYMBOL	DEFINITION	GRADE POINT
A	Excellent	4
B	Good	3
C	Satisfactory	2
D	Passing, less than satisfactory	1
F	Failing	0
CR	Credit (at least equal to a "C" grade or better – units awarded are not counted in GPA)	
NC	No-Credit (equal to a "D" or "F" grade –units are not counted in GPA)	

(CR and NC grades may be given only in courses authorized by the District Credit/No-Credit Option and Credit by Examination Policies.)

The following non-evaluative symbols may be entered on a student's record:

Symbol	Definition
I	Incomplete

Incomplete academic work for unforeseeable emergency and justifiable reasons at the end of the term may result in an "I" symbol being entered in the student's record. The condition for removal of the "I" shall be stated by the instructor in a written record.

This record shall contain the conditions for removal of the "I" and a default grade to be assigned if missing work is not completed within one year from the end of the course. This record shall be given to the student, with a copy on file in the College Admissions Office until the "I" is made up or the one-year time limit has passed.

A final grade shall be assigned when the work stipulated has been completed and evaluated, or when the one-year time limit for completing the work has passed.

The "I" symbol shall not be used in calculating units attempted nor for grade points. THE "I" MAY BE MADE UP NO LATER THAN ONE YEAR FOLLOWING THE END OF THE TERM IN WHICH IT WAS ASSIGNED. The student may petition for a time extension due to unusual circumstances.

Note: Courses in which the student has received an Incomplete ("I") may not be repeated unless the "I" is removed and has been replaced by a grade of "D" or "F". This does not apply to courses which are repeatable for additional credit.

IP In Progress

The "IP" symbol shall be used only in those courses which extend beyond the normal end of an academic term. "IP" indicates that work is "in progress," but that assignment of a substantive grade must await its completion. The "IP" symbol shall remain on the student's permanent record in order to satisfy enrollment documentation. The appropriate evaluative grade and unit credit shall be assigned and appear on the student's record for the term in which the required work of the course is completed. The "IP" shall not be used in calculating grade-point-averages. If a student enrolled in an "open-entry, open-exit" course is assigned "IP" at the end of an attendance period and does not complete the course during the subsequent attendance period, the appropriate faculty will assign an evaluative symbol (grade) as specified above to be recorded on the student's permanent record for the course.

RD Report Delayed

The "RD" symbol may be assigned by the registrar only. It is to be used when there is a delay in reporting the grade of a student due to circumstances beyond the control of the student. It is a temporary notation to be replaced by a permanent symbol as soon as possible. "RD" is not used in calculating grade point averages.

W Withdrawal

Students may withdraw from a class or classes through the last day of the fourteenth week of instruction or 75% of the time the class is scheduled to meet, whichever is less. To withdraw, complete a Drop Card in the Admissions and Records Office or use the STEP telephone system.

No notation ("W" or other) shall be made on the record of a student who withdraws during the first four weeks, or 30% of the time the class is scheduled, whichever is less.

Withdrawal between the end of the fourth week (or 30% of the time the class is scheduled to meet, whichever is less) and the last day of the fourteenth week of instruction (or 75% of the time the class is scheduled to meet, whichever is less) will result in a grade of "W". A student who remains in class beyond the fourteenth week or 75% of the time the class is scheduled shall be given a grade other than a "W", except in cases of extenuating circumstances.

After the last day of the fourteenth week (or 75% of the time the class is scheduled, whichever is less), the student may withdraw from class upon petition demonstrating extenuating circumstances and after consultation with the appropriate faculty. Students should obtain a petition in the Admissions Office. Extenuating circumstances are verified cases of accidents, illness, or other circumstances beyond the control of the student. Withdrawal after the end of the fourteenth week (or 75% of the time the class is scheduled, whichever is less) which has been authorized in extenuating circumstances shall be recorded as "W".

The "W" shall not be used in calculating units attempted nor for the student's grade-point-average.

"Ws" will be used as factors in progress probation and dismissal.

Credit/No-Credit Option

The College President may designate courses in the College Catalog wherein all students are evaluated on a "credit/no-credit" basis or wherein each student may elect, no later than the end of the first 30% of the term, whether the basis of evaluation is to be "credit/no-credit" or a letter grade. These courses will be noted in the College Schedule as being eligible for the Credit/No-Credit Option.

1. USAGE FOR SINGLE PERFORMANCE standard. The credit/no-credit grading system shall be used in any course in which there is a single satisfactory standard of performance for which unit credit is assigned. A grade of Credit (CR) shall be assigned for meeting that standard, and a grade of No-Credit (NC) shall be assigned for failure to do so.
2. ACCEPTANCE OF CREDITS. All units earned on a "credit/no-credit" basis in accredited California institutions of higher education or equivalent out-of-state institutions shall be counted in satisfaction of community college curriculum requirements.
3. RECORDING OF GRADE. A student who is approved to be evaluated on the "credit/no-credit" basis shall receive both course credit and unit credit upon satisfactory completion of the course. Satisfactory completion for credit is equivalent to the grade of "C" or better. A student who does not perform satisfactorily will be assigned a "No-Credit" (NC) grade.
4. GRADE POINT CALCULATION. Units earned on a "credit/no-credit" basis shall not be used to calculate grade-point-averages. However, units attempted for which "No-Credit" (NC) is recorded shall be considered in probationary and dismissal procedures.
5. STANDARDS OF EVALUATION. The student who is enrolled in a course on a "credit/no-credit" basis will be held responsible for all assignments and examinations required in the course and must meet the standards of evaluation which are identical for all students.
6. CONVERSION TO LETTER GRADE. A student who has received credit for a course taken on a "credit/no-credit" basis may not convert this credit to a letter grade.
7. COURSE REPETITION. A student who has received a grade of "No-Credit" (NC) may repeat the course by meeting the requirements set forth by the District Course Repetition to Improve Substandard Grades Policy.

8. CAMPUS PROCEDURE
   - Certain courses, noted in the Schedule of Classes, are evaluated on a Credit/No Credit basis only. Letter grades may not be assigned for these courses.
   - In addition to courses mentioned above, a student has the option of selecting one course per semester to be graded on a Credit/No Credit basis. This option is available only for courses listed in the Schedule of Classes under "Courses Offered on a Credit/No Credit Basis."
   - Selection of courses to be taken on a Credit/No Credit basis must be made during the time indicated in the schedule. Late requests will not be accepted.
   - Once a course has been selected to be graded on a Credit/No Credit basis, a student cannot receive a letter grade for the course. The decision to take a course on this basis is irrevocable.
   - The general practice at most four-year colleges is not to accept "credit/no credit" grades for courses required for the major or preparation for the major. A student planning to transfer to UCLA is required to have at least 42 units in regular letter grades.

Grades and Grade Changes

The instructor of the course shall determine the grade to be awarded to each student in accordance with the preceding Grading Symbols and Definitions Policy. The determination of the student's grade by the instructor is final in the absence of mistake, fraud, bad faith, or incompetency. The removal or change of an incorrect grade from a student's record shall be done only upon authorization by the instructor of the course.

In the case of fraud, bad faith, or incompetency, the final determination concerning removal or change of grade will be made by the College President.

Campus Procedure

Students should see the course instructor for a grade change. If the instructor is no longer on campus, students may petition the Office of Academic Affairs to have an instructor reevaluation of a course grade, provided the grade in question was originally issued within the last two years. Grade changes will not be considered for grades issued more than 2 years ago.

Transcripts

Upon written request of the student, a copy of the student's academic record shall be forwarded to the student or his or her designated addressee promptly by U.S. mail or other responsible forwarding agency.

A student or former student shall be entitled to two free copies of the transcript of his or her record or to two free verifications of student records. Additional copies shall be made available to the student, or to an addressee designated by the student, at a cost of $1. Students may request special processing to expedite their request for an additional fee of $5 per transcript or verification. This option is subject to the College's ability to provide this service. Requests for transcripts or verifications may be obtained in the Office of Admissions. Transcripts from another institution are not available for copying.

The student's transcript may be withheld if 1) any library books or other library materials are charged to the student and are unreturned, or 2) there are any unpaid fees or charges due to the College. The transcript may be withheld until these obligations of the student to the College are discharged.

Academic Honors

This policy is adopted for use in the Los Angeles Community College District only. Other institutions may differ and students planning to transfer to another college should contact that institution regarding its policy.

Awards

Graduating students of outstanding personality, scholarship, and leadership are recognized through the yearly presentation of awards within the several departments of the College. Recipients of these awards are determined through department procedures.

President's Honor List

Students who have appeared on the Full-time or Part-time Dean's Honor List for three or more consecutive semesters will be placed on the President's Honor List. A notation of this award will appear on the student's transcript.

Dean's Honor List

Each semester a list is published containing the names of students who have completed 12 or more units of graded classes (credit/no-credit and incompletes are not included) during the preceding semester with a grade-point average of 3.5 or better. Part-time students may also receive recognition through the Part-time Dean's List, which honors students who have completed a minimum of 12 graded units at Pierce and 6 to 11 units of graded course work in the semester and have a GPA of 3.5 or better. For more details about the Part-time Dean's List, contact the Admissions and Records Office. Further recognition is afforded Dean's List students by means of a personal letter from the Vice President of Academic Affairs and a notation on the transcript.

President's Award

A perpetual trophy and scholarship have been donated by the Associated Student Organization to the College President so that one or two outstanding graduating students can be recognized. The student must have maintained a 3.0 GPA for all college work, successfully participated in co-curricular activities, demonstrated leadership, served both the College and the community, and exhibited desirable personal qualifications.

Academic Standards & Credit Policies

Credit by Examination

Some courses in the college catalog are eligible for credit by examination.

1. **Methods of obtaining credit by examination**
   a. Achievement of a score of 3 or higher on certain Advanced Placement Examinations administered by the College Entrance Examination Board.
   b. Achievement of a score of 500 or higher on one of the College Level Examination Program (CLEP) general exams. Pierce College does not grant credit for the subject area exams.
   c. Credit by satisfactory completion of an examination administered by the college in lieu of completion of a course listed in the college catalog. This option is available for selected courses only. Contact the Admissions Office for the current course list and credit by exam petition. Petition requirements are 1) student currently registered at Pierce; 2) cumulative GPA of at least 2.0; 3) has taken less than 15 units credit by exam; 4) has completed at least 12 units within the Los Angeles Community College District; 5) course is offered on credit by exam basis; 6) prerequisites (if any) for course are complete; 7) has not enrolled in or completed a more advanced course in the same area; 8) cannot be currently enrolled in course or have already earned a grade in the course.
   d. Achievement of a score that qualifies for credit on an examination administered by other agencies approved by the college.
2. **Determination of Eligibility to Take College Administered Examinations.** Students who qualify:
   a. Must be currently registered in the college, in good standing, and with a minimum grade point average of 2.0 in any work attempted at the college.
   b. May petition for credit by examination if they are
      i) eligible to take such course for credit under existing regulations.
      ii) have not completed a course or are not in the process of taking a course which is more advanced than the course for which credit is requested. This requirement may be waived at the discretion of the appropriate administrator.
3. **Maximum credit allowable for credit by examination**
   The maximum number of credits allowable for credit by examination for the Associate Degree shall be fifteen (15) units. Credit by examination transferred from other institutions is counted toward this maximum.
4. **Limitations**
   Credits acquired by examination are not applicable to meeting such unit load requirements as Selective Service deferment, Veteran's or Social Security benefits.
5. **Recording of credit**
   2.1. If a student passes the examination, the course shall be posted on his/her cumulative record indicating "Credit" in the "Grade" column.
   2.2. The number of units of credit recorded for any course may not exceed those listed in the college catalog.

Acceptance Towards Residence

Units for which credit is given pursuant to the provision of this section shall not be counted in determining the 12 units of credit in residence requirement.

Recording of Grade

Students who successfully pass an approved examination shall have the record of such examination entered on their record as "CR" as provided by the District Grading Symbols and Definitions Policy. The student's records shall also be annotated "Credit by Examination."

Credit For Advanced Placement

TEST	AP	EQUIVALENCY UNITS
American History	History 11, 12	6
Art: History	Art 101, 102	6
Studio Drawing	Art 201, 202	6
Studio General	Elective credit*	6
Biology	Biology 3	4
Computer Science	Computer Science 19	3
English Lang. & Comp.	English 101, 102	6
Comp. & Lit.	English 101, 102	6
Economics	Economics 1 & 2	6
European History	Elective Credit*	6
French Language	French 1	5
Literature	Elective Credit*	6
German Language	German 1	5
Literature	Elective Credit*	6
Latin: Virgil	Elective Credit*	6
Catullus-Horace	Elective Credit*	6
Math: Calculus AB	Math 261	5
Calculus BC	Math 261, 262	10
Music: Listen/Lit.	Music 111, 112	6
Theory	Elective Credit*	6
Physics B	Physics 6, 7	6
C: Mechanics	Physics 37	5
C: Elec. & Mag.	Physics 38	5
Spanish Language	Spanish 1	5
Literature	Elective Credit*	6
U.S. Government & Politics	Political Science 1	3
U.S. Government & Politics-Comp.	Political Science 2	3

*Satisfies six (6) units elective credit only--Not G.E. requirement

Minimum score needed for AP credit is 3. Some institutions require higher scores for course credit. Students should check with counselors and/or institution to which they plan to transfer.

Academic Renewal

The following policy applies only to classes taken at Pierce College. Students may submit a petition to the Office of Admissions and Records to have grades of "D" or "F", removed from their grade-point-average under the following conditions:

1. Students must have achieved a grade-point-average of 2.5 in their most recent 15 semester units, or 2.0 in their most recent 30 semester units completed at any accredited college or university, and
2. At least two calendar years must have elapsed from the time the course work to be removed was completed.

If the above conditions are met, academic renewal shall be granted, consisting of:

1. Eliminating from consideration in the cumulative grade-point-average up to 18 semester units of course work, and
2. Annotating the student academic record indicating where courses have been removed by academic renewal action.
3. Granting of Academic Renewal does not mean the course can be repeated beyond the maximum repeatability listed for the course.

Academic renewal actions are irreversible.

Course Repetition to Improve Substandard Grades

Students may petition for approval to repeat up to a total of 15 units in which substandard grades (less than "C," 2.0) were awarded.

Students may repeat the same course only once for this purpose.

Upon completion of a course repetition, students may petition to have the most recent grade earned computed in the cumulative grade-point-average, the substandard grade removed from the grade-point-average calculation and the student's academic record so annotated.

No specific course or categories of courses shall be exempt from course repetition.

This policy is adopted for use in the Los Angeles Community College District only. Other institutions may differ and students planning to transfer to another college should contact that institution regarding its policy.

Campus Procedure

"Request for Review of Student Record" forms are available at the Information Desk in the Administration Building. This form should be filed to request permission to repeat a course before enrolling in the course for a second time.

Course Repetition: Special Circumstances

Repetition of courses for which substandard work has not been recorded shall be permitted only upon advance petition of the student and with written permission of the College President or designee based on a finding that circumstances exist which justify such repetition. In such repetition under special circumstances, the student's permanent academic record shall be annotated in such a manner that all work remains legible. Grades awarded for repetition under special circumstances shall not be counted in calculating a student's grade-point-average.

Course Repetition and Activity Repetition

Certain courses in the Catalog may be repeated for additional unit credit. These courses, marked "RPT" in the Course Section of the Catalog, allow the student an expanded educational experience each time the student enrolls in the course. Enrollment in these courses is limited in any similar activity to a maximum of three repeats for a total of four (4) enrollments, regardless of the repeatability of individual courses. The activity limitation also applies to courses which are not repeatable in themselves but for which similar activities exist. For example, there are several similar course titles in Art, Music, Theater, and Physical Education which are considered to be the same activity. A student may enroll four times in courses which are considered to be the same activity, such as twice in Theater 279, Musical Theater (RPT 3), and twice in Theater 280, Musical Theater Workshop (RPT 3). Any combination may be used as long as 4 enrollments in one activity is not exceeded.

This activity enrollment limitation begins with the Fall 1983 term. Excess enrollment will result in administrative drop. Consult a counselor for the latest restricted activity enrollment list.

Note: Whenever the student's record is reviewed for the purpose of determining his or her unit credits, all of the student's record is reviewed, not just the course work since the beginning of Fall 1983.

Transfer Credit Policy

Transfer credit for lower division courses taken at regionally accredited institutions of higher education in the United States is accepted toward Associate Degrees or Certificates. Students must provide official transcripts.

For additional information, contact the Graduation Office.

Foreign Transcript Credit Policy

Students who have completed college level courses at schools outside the United States may petition for an unlimited number of lower division units of credit toward an Associate Degree or Certificate under the following conditions:

1. Students must submit a detailed evaluation from an approved evaluation service. Students are responsible for the cost of this service.
2. The foreign university or college must have been approved by that country's Ministry of Education at the time the student attended.
3. No courses may be used to satisfy the Associate Degree's Reading and Written Expression or oral communication requirement unless the course was taken in a country where English is the native language.
4. No course may be used to satisfy the Associate Degree's American Institutions requirement.
5. In cases where equivalent course credit is not granted, elective credit may be awarded.

For additional information, contact the Graduation Office.

Credit for Courses Completed at Non-Accredited Institutions

Students transferring from non-accredited institutions may, after successful completion of 30 units with a "C" or better grade-point-average, apply for up to 15 units of credit in courses which parallel the offerings of the College.

The following exceptions may be made to this regulation:

1. **Credit for Graduates of Diploma Schools of Nursing.**

   The following amount of credit is authorized for graduates of Diploma Schools of Nursing who enter the Los Angeles Community Colleges:

   2.1. Thirty (30) semester units of credit will be given to graduates of Diploma Schools of Nursing under the following conditions:

      2.1.1. The student presents a valid, current California certificate as a licensed registered nurse to the designated administrative officer;

      2.1.2. The student has completed at least 12 units of credit at the College to which application is made.

   2.2. The work of graduates of Diploma Schools of Nursing outside California will be recognized if the student has a valid, current California license. Credit will be given even though the license was obtained on the basis of reciprocity with another state rather than by examination.

   2.3. Candidates for the Associate of Arts or Associate of Science Degree are exempt from Health Education as a general education requirement. No other general education requirements will be waived.

   2.4. Additional courses in Nursing may be taken for credit only upon approval of the Nursing Department.

   2.5. The transcript is not to reflect the major field nor should the diploma, where given, indicate Nursing as a major.

2. **Credit for Military Service Training**

   Students who are currently serving in or have served in the military service, may, after successful completion of at least one course with the Los Angeles Community Colleges, request an evaluation of credit earned through military service training schools and/or military occupational specialties.

3. **Credit for Law Enforcement Academy Training**

   Credit for basic recruit academy training instructional programs in Administration of Justice or other criminal justice occupations shall be granted as follows:

   2.1. Credit will be given for training from institutions which meet the standards of training of the California Peace Officers Standards and Training Commission.

   2.2. A single block of credit will be given and identified as academy credit.

   2.3. One (1) unit of credit may be granted for each 50 hours of training, not to exceed ten (10) semester units or their equivalent.

Credits granted by an institution of higher education for basic recruit academy training, under the above provisions, shall not be identified as equivalent to any required course in the major.

Academic Probation & Dismissal

Academic Standards for Probation

The following standards for academic and progress probation shall be applied as required by regulations adopted by the Board of Governors of the California Community Colleges. Probation shall be determined based on student course work dating from Fall, 1981; course work completed prior to Fall of 1981 is excluded from probation calculations.

Probation

A student shall be placed on probation if any one of the following conditions prevail:

2.1. ACADEMIC PROBATION. The student has attempted a minimum of 12 semester units of work and has a grade-point-average less than a "C" (2.0).

2.2. PROGRESS PROBATION. The student has enrolled in a total of at least 12 semester units and the percentage of all units in which a student has enrolled and for which entries of "W" (Withdrawal), "I" (Incomplete), and "NC" (No Credit) are recorded reaches or exceeds fifty percent.

2.3. TRANSFER STUDENT. The student has met the conditions of a or b at another college within the Los Angeles Community College District.

Units Attempted

"Units Attempted," for purposes of determining probation status only, means all units of credit in the current community college of attendance for which the student is enrolled.

Removal from Probation

A student shall be removed from probation upon meeting the criteria specified in this section.

Academic Probation – A student on academic probation for a grade point deficiency shall be removed from probation when the student's cumulative grade-point-average is 2.0 or higher.

Progress Probation – A student on progress probation because of an excess of units for which entries of No-Credit (NC), Incomplete (I), and/or Withdrawal (W) are recorded shall be removed from probation when the cumulative percentage of units in this category drops below fifty percent (50%).

Academic Standards for Dismissal

A student shall be subject to dismissal and subsequently be dismissed under the conditions set forth within this section. Dismissal shall be determined based on student course work dating from Fall, 1981; course work completed prior to Fall of 1981 is excluded from dismissal calculations.

Academic Probation

A student who is on academic probation shall be subject to dismissal if the student has earned a cumulative grade-point-average of less than 2.0 in all units attempted in each of 3 consecutive semesters.

A student who is on academic probation and earns a semester grade-point-average of 2.0 or better shall not be dismissed as long as this minimum semester grade-point-average is maintained.

Progress Probation

A student who is on progress probation shall be subject to dismissal if the cumulative percentage of units in which the student has been enrolled for which entries of No-Credit (NC), Incomplete (I), and/or Withdrawal (W) are recorded in at least 3 consecutive semesters reaches or exceeds fifty percent (50%).

A student who is on progress probation shall not be dismissed after a semester in which the percentage of units in which the student has been enrolled for which entries of "W" and "NC" are recorded is less than fifty percent (50%).

Appeal of Dismissal

A student who is subject to dismissal may appeal to the appropriate College Dean. Dismissal may be postponed and the student continued on probation if the student shows significant improvement in academic achievement but has not been able to achieve to a level that would meet the requirements for removal from probation.

Dismissal

A student who is subject to dismissal, and who has not been continued on probation throughout the appeal process, shall be notified by the College President, or designee, of dismissal which will become effective the semester following notification.

Dismissal from any one college in the District shall disqualify a student from admission to any other college in the District.

Readmission After Dismissal

A student who has been dismissed may request reinstatement after 2 semesters have elapsed. The student shall submit a written petition requesting readmission to the College in compliance with College procedures. Readmission may be granted, denied, or postponed subject to fulfillment of conditions prescribed by the College.

Student Services & **Academic Resources**

Student Services

The primary purpose of the office of Student Services is to protect the right of every student to receive a higher education and to ensure that this right will not be infringed upon arbitrarily, capriciously, or in a discriminatory manner, or without due process of law. The Dean of Student Services acts as an advocate for the students. The second responsibility of the office is to enforce the Code of Student Conduct for the safety and protection of the college community and the preservation of academic integrity.

Student Services are designed to assist students in accomplishing their educational objectives and to provide opportunities for involvement in a number of co-curricular activities. Overall supervision is the responsibility of the Dean of Student Services.

Standards of Student Conduct

A student enrolling in one of the Los Angeles Community Colleges may rightfully expect that the faculty and administrators of the Colleges will maintain an environment in which there is freedom to learn. This requires that there be appropriate conditions and opportunities in the classroom and on the campus. As members of the college community, students should be encouraged to develop the capacity for critical judgment, to engage in the sustained and independent search for truth, and to exercise their rights to free inquiry and free speech in a responsible, non-violent manner. In furtherance of the students' interest in free inquiry and the search for truth, it is also important that students be able to hear the views of non-students and engage in the free exchange of ideas with non-students.

All persons shall respect and obey civil and criminal law, and shall be subject to legal penalties for violation of laws of the city, county, state and nation. All persons shall respect and obey the rules, regulations, and policies of the Los Angeles Community College District. To this end, all students will be asked to sign a statement that they have received the Standards of Conduct and the disciplinary procedures relating to students adopted by the Board of Trustees. All visitors making use of the facilities or grounds of any college of the District will be asked to sign a statement that they have received the Standards of Conduct and the rules relating to campus visitors adopted by the Board of Trustees. Signature will not be a prerequisite to activities on campus. A record will be kept of all persons who use the facilities or grounds of the college.

Conduct in all of the Los Angeles Community Colleges must conform to District and college rules and regulations. Violations of such rules and regulations, may result in disciplinary action depending on the individual's status as student, faculty, staff or visitor.

Violations of such rules and regulations include but are not limited to the following:

Board Rule 9803.10

Willful Disobedience. Willful disobedience to directions of College officials acting in the performance of their duties.

Board Rule 9803.11

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

Board Rule 9803.12

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

Board Rule 9803.13

Unauthorized entry. Unauthorized entry to or use of the College facilities.

Board Rule 9803.14

College Documents. Forgery, alteration, or misuse of College documents, records, or identification.

Board Rule 9803.15

Disruption of Classes or college activities. Obstruction or disruption of classes, administration, disciplinary procedures, or authorized College activities.

Board Rule 9803.16

Theft of or Damage of Property. Theft of or damage to property belonging to the College, a member of the College Community, or a campus visitor.

Board Rule 9803.17

Interference with peace of college. The malicious or willful disturbance of the peace or quiet of any of the Los Angeles Community Colleges by loud or unusual noise, or any threat, challenge to fight, fight, or violation of any rules of conduct as set forth in this Article. Any person whose conduct violates this section shall be considered to have interfered with the peaceful conduct of the activities of the college where such acts are committed.

Board Rule 9803.18

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

Board Rule 9803.19

Alcohol and Drugs. Any possession of controlled substances which would constitute a violation of Health and Safety Code section 11350 or Business and Professions Code section 4230, any use of controlled substances the possession of which are prohibited by the same, or any possession or use of alcoholic beverages while on any property owned or used by the District or colleges of the District or while participating in any District or college-sponsored function or field trip.

"Controlled substance", as used in this section, include but are not limited to the following drugs and narcotics:

a) opiates, opium and opium derivatives
b) mescaline
c) hallucinogenic substances
d) peyote
e) marijuana
f) stimulants and depressants
g) cocaine

Board Rule 9803.20

Lethal Weapon. Possession, while on a college campus or at a college-sponsored function, of any object that might be used as a lethal weapon is forbidden to all persons except sworn peace officers, police officers and other governmental employees charged with policing responsibilities.

Board Rule 9803.21

Discriminatory Behavior. Behavior while on a college campus or at a college-sponsored function, inconsistent with the District's non-discrimination policy, which requires that all programs and activities of the Los Angeles Community College District be operated in a manner which is free of discrimination on the basis of race, color, national origin, ancestry, religion, creed, sex, pregnancy, marital status, sexual orientation, age, handicap or veterans status.

Board Rule 9803.22

Unlawful Assembly. Any assemblage of two or more persons to 1) do an unlawful act, or 2) do a lawful act in a violent, boisterous or tumultuous manner.

Board Rule 9803.23

Conspiring to Perform Illegal Acts. Any agreement between two or more persons to perform illegal acts.

Board Rule 9803.24

Threatening Behavior. A direct or implied expression of intent to inflict physical or mental/emotional harm and/or actions, such as stalking, which a reasonable person would perceive as a threat to personal safety or property. Threats may include verbal statement, written statements, telephone threats or physical threats.

Board Rule 9803.25

Disorderly Conduct. Conduct which may be considered disorderly includes; lewd or indecent attire or behavior that disrupts classes or college activities; breach of the peace of the college; aiding, or inciting another person to breach the peace of college premises or functions.

Board Rule 9803.26

a. Theft or Abuse of Computer Resources. Theft or abuse of computer resources including but not limited to:
b. Unauthorized entry into a file to use, read, or change the contents, or for any other purpose.
c. Unauthorized transfer of a file.
d. Unauthorized use of another individual's identification and password.
e. Use of computing facilities to interfere with the work of a student faculty member or college official, or to alter college or district records.
f. Use of unlicensed software.
g. Unauthorized copying of software.

Board Rule 9804

Interference with Classes. Every person who, by physical force, willfully obstructs, or attempts to obstruct, any student or teacher seeking to attend or instruct classes at any of the campuses or facilities owned, controlled or administered by the Board of Trustees of the Los Angeles Community College District, is punishable by a fine not exceeding five hundred dollars ($500) or imprisonment in a county jail not exceeding one year, or by both such fine and imprisonment. As used in this section, "physical force" includes, but is not limited to, use of one's person, individually or in concert with others, to impede access to or movement within or otherwise to obstruct the students or teachers of the classes to which the premises are devoted.

Board Rule 9805

Interference with Performance of Duties by Employees. Every person who attempts to cause, or causes, any officer or employee of any of the Los Angeles Community Colleges or any public officer or employee to do or refrain from doing, any act in the performance of his/her duties, by means of a threat to inflict any injury upon any person or property, is guilty of a public offense.

Board Rule 9805.10

Assault or Abuse of Instructor. Every parent, guardian, or other person who assaults or abuses any instructor employed by the District in the presence or hearing of a community college student or in the presence of other community college personnel or students and at a place which is on District premises or public sidewalks, streets, or other public ways adjacent to school premises, or at some other place where the instructor is required to be in connection with assigned college activities is guilty of a misdemeanor.

Smoking Policy

Smoking is not permitted in any classroom or other enclosed facility.

Drug-Free Campus

Los Angeles Pierce College adheres to, supports, and is in full compliance with requirements that maintain our college as a drug-free institution of higher education.

Standards of Conduct

On September 5, 1990, the Board of Trustees adopted the following standards of conduct:

Students and employees are prohibited from unlawfully possessing, using or distributing illicit drugs and alcohol on district premises, in district vehicles, or as part of any activity of the Los Angeles Community College District.

Additionally, on April 20, 1989, the District Board of Trustees adopted Rule 9803.19, which prohibits:

Alcohol and Drugs

Any possession of controlled substances which would constitute a violation of Health and Safety Code section 11350 or Business and Professions Code section 4230, any use of controlled substances, the possession of which are prohibited by the same or any possession or

use of alcoholic beverages while on any property owned or used by the District or colleges of the District or while participating in any District or college-sponsored function or field trip. "Controlled substances," as used in this section, include but are not limited to the following drugs and narcotics:

a. opiates, opium and opium derivatives
b. mescaline
c. hallucinogenic substances
d. peyote
e. marijuana
f. stimulants and depressants
g. cocaine

The board's policy on the Drug-Free Workplace, adopted on March 22, 1989 restates these prohibitions.

Student Academic Integrity Policy Statement

The faculty and administration of Los Angeles Pierce College are committed to the belief that honesty and integrity are integral components of the academic process. The College expects students to be honest and ethical at all times in their pursuit of academic goals.Students who violate the code of academic conduct by which the College maintains its academic integrity will be dealt with in a manner reflecting the seriousness of these violations.

I. Violations of academic honesty and integrity occur when a student participates in any act in which he/she uses deception or fraud while performing an academic activity. Violations include, but are not limited to, the following:

- Using study aids such as calculators, tape recorders or notes, when not authorized by the instructor.
- Cheating on examinations, assignments or experiments (allowing another student to copy one's answers or copying the answers of other students; exchanging information by any means, including verbal exchanges, sign language, hand signals, secret codes, passed notes, creation of a distraction for the purpose of cheating; changing answers on a previously scored test, assignment or experiment; inventing information and/or data.)
- Allowing another student to assume one's identity in order to fulfill an assignment or take a test.
- Submitting for a grade the words, ideas, and/or written work (including laboratory notes and drawings) of another person without giving due credit to that person. This includes purchased papers or papers written by other students.
- Falsifying or attempting to falsify attendance records and/or grade rosters.
- Conspiring with other students to commit any of the above behaviors.

II. Disciplinary actions against a student who commits any offense against academic honesty and integrity may include:

- An "F" or a "0" on the examination or assignment.
- Suspension from the class.
- An "F" grade in the course (or voluntary withdrawal if the incident occurs prior to the 14th week of the semester.
- A record of the student's violation placed in the student's disciplinary file.
- Restitution charges for damaged or misappropriated property.
- Disciplinary probation from college activities or services.
- Suspension from the College.
- Expulsion from the College.

III. Student's Right to Appeal

Students have the right to appeal disciplinary actions through the Board of Trustees Discipline procedures. A grade penalty may be contested through the student grievance procedures.

IV. Reporting a Violation

When an alleged incident of academic dishonesty occurs, it is recommended that a faculty member take the following steps to report the incident:

a) Inform the student and the department chair of the nature of the alleged violation and the impending course of action.
b) Complete the Academic Dishonesty Report Form and submit it, along with any related evidence, to the Dean of Student Services. The student should also receive a copy of the form from the instructor within ten (10) working days of the incident.
c) The Dean of Student Services will forward information about the incident to the Department Chair and the appropriate Dean of Academic Affairs.
d) The Dean of Student Services will investigate the allegations and recommend any appropriate disciplinary actions, beyond actions taken by the faculty members specific to course grading.

V. Faculty Responsibilities

In order to maintain an environment free of academic dishonesty, the following recommendations are made to the faculty regarding their responsibility to uphold academic integrity:

Make every attempt to conduct their classroom in a manner which encourages honorable behavior and learning, to ensure student success and discourage academic dishonesty.

Inform students of the course requirements, grading procedures and expectations of responsible academic conduct.

Inform students of the College policy on Academic Integrity and the potential consequences for violations of this policy.

Inform students of their right to due process should they wish to contest the cheating allegation.

Legal Sanctions

Federal laws regarding alcohol and illicit drugs allow for fines and/or imprisonment. Other legal problems include the loss of driver's license and limitations of career choices.

Health Risks

Health risks associated with the abuse of controlled substances include malnutrition, damage to various organs, hangovers, blackouts, general fatigue, impaired learning, dependency, disability, and death. Both drugs and alcohol may be damaging to the development of an unborn fetus.

Other Risks

Personal problems include diminished self-esteem, depression, alienation from reality, and thoughts of suicide. Social problems include loss of friends, academic standing, and co- and extra-curricular opportunities, alienation from and abuse of family members, and chronic conflict with authority. Economic problems include loss of job, financial aid eligibility, homes, savings, and other assets.

Counseling, Treatment and Rehabilitation

Students should contact the Student Health Center or the campus Counseling Office for assistance and referrals; employees should contact the Los Angeles Community College District Employee Assistance Program.

Disciplinary Action

Violation of Board Rule 9803.19 shall result in student discipline, imposed in accordance with the Student Discipline Procedures as stated in Board Rule 91101. Discipline options include: warning, reprimand, restitution, disciplinary probation, removal by instructor, immediate suspension, suspension, suspension subject to reconsideration, suspension of financial aid, expulsion. Furthermore, institutional policies and practices may impose disciplinary sanctions on students and employees consistent with local, state, and federal law, up to and including expulsion, termination of employment, and referral for prosecution for violations of the standard of conduct.

The Los Angeles Community College District is committed to drug- and alcohol-free campuses, and we ask you to share in this commitment and dedication.

Student Right to Know

Los Angeles Pierce College in compliance with the Federal Students Right to Know and Campus Security Act of 1990 provides campus crime statistics in the college schedule of classes.

Family Education Rights and Privacy Act

See Student Records and Directory Information.

Student Records and Directory

The Los Angeles Community College District, in compliance with Federal and State law, has established policies and procedures governing student records and the control of personally identifiable information. The Los Angeles Community College District recognizes that student records are a confidential matter between the individual student and the College. At the same time the District has a responsibility to fulfill public information needs (i.e., information about students participating in athletics, announcement of scholarships and awards, etc.). To meet this responsibility the District may release Directory Information unless the student states in writing that he or she does not want it released. The responsibility for carrying out these provisions is charged to the College Records Officer, designated by the chief administrative officer on each campus. The Records Officer may be contacted via the Office of Admissions. Copies of Federal and State laws and District policies and procedures are maintained by the Records Officer and are available for inspection and inquiry.

All student records maintained by the various offices and departments of the College, other than those specifically exempted by law, are open to inspection by the student concerned. The accuracy and appropriateness of the records may be challenged in writing to the Records Officer. A student has the right to receive a copy of his or her record, at a cost not to exceed the cost of reproduction. (Requests for transcripts should be made directly to the Office of Admissions).

No student records, other than Directory Information, will be released without the written consent of the student concerned except as authorized by law. A log of persons and organizations requesting or receiving student record information is maintained by the Records Officer. The log is open to inspection only to the student and the community college official or his or her designee responsible for the maintenance of student records.

Directory Information includes the student's name, city of residence, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. Directory Information about any student currently attending the College may be released or withheld at the discretion of the Records Officer.

No Directory Information will be released regarding any student who has notified the Records Officer in writing that such information shall not be released.

All inquiries regarding student records, Directory Information, and policies for records access, release, and challenge should be directed to the Records Officer via the Office of Admissions.

Students have the right to file a complaint with the United States Department of Education concerning alleged violations of Federal laws governing student records.

Student Discipline Procedures

Community college districts are required by law to adopt standards of student conduct along with applicable penalties for violation (Education Code Section 66300). The Los Angeles Community College District has complied with this requirement by adopting Board Rule 9803, Standards of Student Conduct. The purpose of this Board Rule is to provide uniform procedures to assure due process when a student is charged with a violation of these standards. All proceedings held in accordance with these procedures shall relate specifically to an alleged violation of the established Standards of Student Conduct.

These provisions do not apply to grievance procedures, student organization councils and courts, or residence determination and other academic and legal requirements for admission and retention. Disciplinary measures may be taken by the College independently of any charges filed through civil or criminal authorities, or both.

Copies of the Student Discipline Procedures are available in the Student Services Office in the Campus Center.

Student Grievance Procedures

The Student Grievance Procedure is to provide a prompt and equitable means for resolving student(s) grievances. The grievance procedure may be initiated by a student or group of students who reasonably believe that he/she/they have been subject to unjust action or denied rights that adversely affect his/her/their status, rights, or privileges as a student. The grievance procedure is detailed in District Administrative Regulation E-55 which is available in the Student Services Office in the Campus Center to any student or applicant to the college.

This grievance procedure does not apply to the challenge process for prerequisites, corequisites, advisories and limitations on enrollment; alleged violations of sexual harassment; actions dealing with student discipline; alleged discrimination on the basis of ethnic group identification, religion, age, sex, color, sexual orientation, physical or mental disability; or an appeal for residency decision; or to eligibility, disqualification or reinstatement of financial aid.

In addition, section 76224 of the California Education Code provides:

"When grades are given for any course of instruction taught in a community college district, the grade given to each student shall be the grade determined by the instructor of the course and the determination of the student's grade by the instructor, in the absence of mistake, fraud, bad faith, or incompetency, shall be final."

The following steps should be taken to begin the grievance procedure:

Step I Informal Resolution

All parties involved in a potential grievance should be encouraged to seek an informal remedy. The student shall make a reasonable effort to resolve the matter on an informal basis by:

1. meeting with the person with whom the student has a grievance.
2. meeting with that person's immediate supervisor.
3. meeting with the College administrator of the area.
4. meeting with the College Ombudsperson to explore student rights and responsibilities, receive assistance with an informal resolution, and submit a written Statement of Grievance.

Step II Formal Resolution

Students unable to resolve their grievance through the informal process may file a "Formal Grievance Hearing Request Form" with the College Ombudsperson. The Ombudsperson will provide students with information about the formal grievance hearing process and their rights and responsibilities in this process.

Students pursuing a formal grievance have the right to be represented by a Student Advocate who will assist students in the formal grievance process.

Additional information and assistance with the Student Grievance Procedure may be obtained from the Student Services Office in the Campus Center.

Ombudsperson

Pursuant to the Student Grievance Procedure, the College Ombudsperson has been appointed by the College President to assist the student in obtaining informal resolution of a grievance.

Financial Aid

Goal

The purpose of financial aid is to provide access to post-secondary education for those who otherwise would be unable to afford the cost of education. Through grants, part-time employment, scholarships, and loans, needy students are provided monetary assistance to meet the basic cost of educational expenses.

What is Financial Aid?

Financial aid is monies made available by federal and state governments and private sources in the form of grants, employment, scholarships, and loans. These monies are available to make it possible for students to continue their education beyond high school even if they and their family cannot meet the full costs of the postsecondary school they choose to attend. The basis for such programs is the belief that parents have the primary responsibility of assisting their dependents to meet educational costs and that financial aid is available only to fill the gap between a family's contribution and the student's yearly academic expenses.

How To Apply

A student must complete a Free Application for Federal Student Aid (FAFSA).

Applications are available in the Financial Aid Office at the College.

Who Can Apply?

To be considered for financial aid, a student must meet the following minimum requirements:

1. Students applying for financial aid must have a high school diploma, or have proof of passing a high school equivalency test. Students who do not have a high school diploma must either obtain a General Equivalency Diploma, or a Certificate of California Proficiency, or must take an independently administered test. Tests are administered in the Assessment Center. An appointment to take the test can be made by calling (818) 719-6499. Students must pass all segments of the test to qualify for financial aid. Students who have successfully

completed a two-year program (minimum 48 units) that is acceptable for full credit toward a bachelor's degree have the recognized equivalent of a high school diploma.

2. Be a U.S. citizen or an eligible non-citizen. An eligible non-citizen is a U.S.permanent resident who has an I-151, I-94, or I-551 (Alien Registration Receipt document) from the Immigration and Naturalization Service verifying that their stay in the U.S. is for other than a temporary purpose, or an I-688 card for amnesty. (I-688A cards are ineligible for Title IV aid, but are eligible for state aid.)
3. Show that they have financial need.
4. Be making satisfactory academic progress in a regular course of study.
5. Must not be in default on a Perkins Loan (formerly National Direct Student Loan), Stafford Direct Loan (formerly Guaranteed Student Loan), or Supplemental Student Loans (SLS) at any school the student has attended.
6. Must not owe a refund on a Federal Pell Grant, and Federal Supplemental Educational Opportunity Grant (SEOG) or other Title IV programs.
7. Be registered with the Selective Service if required to do so.

When To Apply

Beginning on January 1 preceding the school year in which the student enrolls. Example: Beginning January 1, 1997, for the enrollment period between July 1, 1997 and June 30, 1998.

FINANCIAL AID DEADLINE DATES FOR THE 1997-98 SCHOOL YEAR:

Federal Financial Aid Deadline	May 22, 1998
State CAL Grant Deadline	March 2, 1997

Determining Financial Need

The number and amount of financial awards and payments are subject to availability of institutional, federal, and state aid funds. The type of aid and amount received will be determined by the Financial Aid Office. Financial aid awards are based on demonstrated financial need which is the difference between allowable educational expenses and the total of the parents' expected contribution, and/or the student's own resources. Resources may include, but are not limited to, employment earnings, veteran's benefits, Social Security benefits, or parents' contribution. Resources are then measured against the institutional student expense budget to determine legitimate financial need. Resources are determined from the financial aid application submitted by the student.

Financial Aid Programs

GRANTS

Federal Pell Grant

The Federal Pell Grant is a federally funded program. To be eligible, an applicant must be an undergraduate student and demonstrate financial need. Grants range from $400 to $2700 per academic year for Los Angeles Community College District students. The amount of the award, as determined by the Pell Grant Program, is in most cases based on prior calendar year income and asset information provided in the financial aid application.

Federal Supplemental Educational Opportunity Grant (SEOG)

The FSEOG program is a federal undergraduate program designed to supplement other sources of financial aid for students with exceptional need. To be eligible, an applicant must be enrolled in at least 6 units. FSEOG awards range upward from $100 to $400 per year. FSEOG is available for as long as it takes to complete the first undergraduate degree within the time frame coinciding with the Financial Aid Satisfactory Academic Progress Standards. When students apply for financial aid, they will automatically be considered for this program based on eligibility requirements and packaging policies.

Board of Governor's Grant (BOGW)

The California Community Colleges offers a Board of Governors Enrollment Fee Waiver (BOGW) to help low income students with enrollment fees. Students must meet the California residency requirements as determined by the Admission and Records Office. The BOGW is a waiver program and does not require repayment. BOGW applicants do not have to be enrolled in a specific number of courses and it waives the enrollment fees for the academic year and summer sessions. Please see "Enrollment Fee Assistance" for further information.

State Government Grants

The State of California, through the California Student Aid Commission, sponsors grant programs for undergraduate students. To qualify for any of the state-funded grants, a student must be a California resident and be attending (or plan to attend) an eligible school or college in California. To apply for these grants, a student must complete a Free Application for Federal Student Aid (FAFSA) by March 2 prior to the academic year in which the student intends to enroll.

Cal Grants

A student can receive only one Cal Grant, either Cal Grant B, or C.

- **Cal Grant B**

  This grant provides a living allowance for entering college freshman who come from low income families. Because this grant is intended for students coming out of high school, CAL GRANT B awards are available only for students who have completed no more than one semester of full-time college work (16 semester units or 24 quarter units). At a community college grants can range from $500 to $1410 per academic year. Students must be enrolled in at least 6 units to be eligible.

- **Cal Grant C**

  This grant is intended for students who desire to train for specific occupations, vocations or technical careers, but who do not have the financial resources to enter training programs because they are from low to middle income families.

Grants are limited to $530 at community colleges for programs ranging in length from four months to two years. Students must be enrolled in at least 6 units.

Bureau of Indian Affairs (BIA) Grants

BIA Grants provide money to help defray the costs of education for students of American Indian heritage. Students may apply if they:

1. are at least one-quarter American Indian, Eskimo, or Aleut, as certified by the BIA and/or tribal group services by the BIA:

2. have financial aid eligibility and scholastic ability;
3. are working toward an undergraduate or graduate degree;
4. have completed all of the requirements.

Amounts of the grants vary according to individual agencies of the BIA. The BIA Grant is advantageous because, unlike other grants, it may be used to replace the loan or work portion of the financial aid package.

Applications are available through the U.S. Department of Interior, Bureau of Indian Affairs, Education Branch, 2800 Cottage Avenue, Sacramento, CA, 95813.

EMPLOYMENT

Federal Work Study Program (FWS)

The FWS program is a Federal program which enables a student to earn part of his or her financial aid award through on/off campus employment. The work and pay rate varies with the student's course of study and experience.

LOANS (Monies which must be repaid)

Federal Perkins Loan
(Formerly National Direct Student Loan (NDSL)

This loan is a low interest loan (5%) repayment program to help students with exceptional financial need meet their educational expenses. To be eligible, an applicant must be enrolled in at least 6 units. A Perkins Loan is also available to students who hold a Bachelor's Degree as long as they haven't previously borrowed the program maximum.

Repayment of the Loan: Repayment status begins nine months after the borrower graduates, withdraws, or drops below six units.

Federal Direct Student Loans

To apply, a student must first complete a Free Application for Federal Student Aid (FAFSA) to determine eligibility for a Pell Grant. **Students must be enrolled in at least 6 units for the entire loan period.** Repayment begins six months after a student ceases being a half-time student, withdraws, or graduates from school.

Loan amounts vary depending on whether a student is a dependent or independent student and a first year student (completed less than 31 semester units at the beginning of the loan period) or a second year student (completed 31 or more units at the beginning of the loan period).

There are two types of loans available under each loan program:

(1) **Subsidized loans** - the federal government pays the interest on the loan until students begin repayment and during authorized periods of deferment thereafter;

(2) **Unsubsidized loans** - students will be charged interest from the time the loan is disbursed. Students can choose to pay the interest or allow it to accumulate. Students can borrow both a subsidized and unsubsidized loan in the same academic year depending upon eligibility.

Under the Federal Direct Loan Program the federal government makes loans directly to students through the school the student attends.

Students should be aware the school they are attending can refuse to certify a loan application or can certify a loan for an amount less than the student would otherwise be eligible for, if the school documents the reason for its action and explains the reasons to the student in writing. The school's decision is FINAL and cannot be appealed to the U.S. Department of Education.

Refer to the U.S. Department of Education **Student Guide for 1997-98**, available in the College Financial Aid Office, for specific annual and aggregate loan amounts.

Standards for Satisfactory Academic Progress for Financial Aid Programs

General Information

In accordance with the Higher Education Act of 1965, as amended, the Los Angeles Community College District (hereinafter referred to as LACCD) established the following Standards of Academic Progress. These standards apply to all students who apply for and receive financial aid from the programs listed below.

- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant (FSEOG)
- Federal Work Study (FWS)
- Federal Perkins Loan
- Federal Family Education Loan (FFEL)
- Federal Direct Student Loan (FDSL)
- Cal Grant B and C

Professional Judgement may be exercised in applying these standards in accordance with Section 479A of the Higher Education Act of 1965 As Amended Through June 1994.

Satisfactory Academic Progress Standards are reasonable if they are the same or stricter than the institution's standards for a student enrolled in the same educational program who is not receiving assistance under Title IV Federal Financial Aid Programs.

Previous coursework earned at any college within the LACCD will be reviewed for compliance with the standards put forth in this policy.

Academic Renewal and Repetitions.

For policies and procedures related to Satisfactory Academic Progress such as Academic Renewal and Course Repetitions, etc., please refer to the school Academic Policy Section of the College Catalog.

Eligibility

1. After eligibility is established, subsequent satisfactory academic progress review will consider academic performance at all colleges throughout the LACCD.
2. For students aided under a consortium agreement with colleges outside the LACCD, consortium classes will be included during satisfactory progress review by the home school (the college that processes the student's aid).

General Requirements

Students receiving financial aid must be enrolled in an eligible program to receive financial aid. An eligible program is defined as:

1. An educational program that leads to an associate, bachelor's, professional, or graduate degree, **or**

2. An educational program which is at least a two-academic-year program that is acceptable for full credit toward a bachelor's degree, **or**
3. An educational program which is at least a one-academic-year training program that leads to a certificate, degree, or other recognized educational credential and that prepares a student for gainful employment in a recognized occupation.

Satisfactory Academic Progress Standards

Maintenance of a 2.0 semester and cumulative GPA.

Completion of fewer than 72 units at the beginning of the academic year. Provided all other satisfactory academic progress standards are met, Financial Aid Offices may increase the cumulative unit completion standard beyond the 72 unit maximum for students accepted into the nursing program without requiring such students to go through the appeal process.

Entries recorded as Incomplete (I), No Credit (NCR), and/or Withdrawl (W), must be less than 50% of units attempted for the previous semester and, cumulatively, completion of the number of units for which the student was paid, minus a 3-unit leeway (see Determining Enrollment Status below).

Financial Aid Probation And Disqualification

Academic progress for financial aid students will be determined prior to the first disbursement of aid for each academic semester.

1. **Probation**
   a) Students whose academic progress is substandard in their most recent prior semester will be placed on probation.
   b) A student who failed to meet the standards at any college in the LACCD and has been placed on probation, is on probation at all colleges within the LACCD.
   c) Students with 50% or more units of Non Credits, Withdrawals, or Incompletes in the most recent semester will be placed on probation.
   d) Students on probation who have made measurable improvement, but who have failed to achieve the minimum standards of satisfactory progress, may be granted additional aided probationary semesters.
2. **Disqualification**
   a) Applicants with two or more consecutive semesters of substandard progress are subject to disqualification.
   b) Financial aid recipients who do not achieve a cumulative GPA of 2.0 or better by the end of the second academic year **must** be disqualified. **The second academic year is defined as a period of time and not the level of enrollment.**
   c) Students who are disqualified from financial aid will be notified by mail of the reason(s) for disqualification and procedure for appeal.
   d) Students can make up unit deficiencies in the Spring semester or during Summer session.
      i) This will be done utilizing professional judgement on a case-by-case basis.[2]
      ii) Students will be notified by mail of their probationary status.

[2] *Section 479A of the Higher Education Act of 1965 As Amended Through June 1994.*

   e) If the cumulative GPA is below the 2.0 minimum, it must be increased to a 2.0 GPA by the conclusion of the Spring semester or Summer session to receive aid in a subsequent award year.
   f) If the student has not achieved the minimum requirements upon completion of the Summer session, financial aid will be discontinued.

Determining Enrollment Status For Financial Aid Recipients

In determining whether or not a student is making satisfactory progress, the student's enrollment status is defined as follows:

1. If the student receives a full-time Pell Frant or Cal Grant, the student's enrollment status is considered full-time (12 or more units for that semester).
2. If the student receives a 3/4 time Pell Grant or Cal Grant, the student's enrollment status is considered 3/4 time (9 to 11 1/2 units for that semester).
3. If a student receives a 1/2 time Pell Grant or Cal grant, the student's enrollment status is considered 1/2 time (6 to 8 1/2 units for that semester).
4. If a student only receives a loan, the student must maintain a minimum enrollment of 1/2 time (6 units per semester) for the entire loan period.
5. If the student receives only Federal Work Study, the student must maintain enrollment in a minimum of one unit per semester while employed.

By the end of each academic year, financial aid students must complete the units for which they received aid minus a 3-unit leeway.

1. Full-time students, who are responsible for 24 units per academic year must complete at least 21 units per year.
2. Three-quarter time students, who are responsible for 18 units per academic year, must complete at least 15 units per year.
3. Half-time students, who are responsible for 12 units per academic year, must complete at least 9 units per year.
4. Less than 1/2 time students are responsible for completion of all units enrolled in per semester when the first disbursement was made. **The 3-unit leeway does not apply to these students.**

In the determination of enrollment status, it is permissible for a student to count units being taken at another college.

1. Students who are taking classes at more than one college **within the LACCD**, are automatically considered to be taking classes under Board Rule #8700.
2. Students who are taking classes at a college within the LACCD and who are **also enrolled at a college outside of the District** must request a written consortium agreement be made between the schools with one school designated as the primary school (the one from which the student receives financial aid) and the other school as the secondary school.
3. If the student is enrolled at a LACCD member college and a four (4) year school, the four year school **must** be the primary school.

Maximum Time Length

Students attending for the purpose of obtaining an Associate of Arts Degree (AA), an Associate of science Degree (AS), a certificate, or completion of requirements for transfer to a four year college, are allowed 72 units in which to complete their objective.

1. Attending full time (12 units or more), a student is expected to complete his/her objective in three years.
2. Attending part time (less than 12 units), a student is expected to complete his/her objective in six years.
3. Exceptions will be made only when the requirements of a student's objective cause the student to exceed the maximum time limit.

Short Length Certificate Programs

1. Some certificate objectives at the Los Angeles Community Colleges may be completed in less time than that required for the Associate of Arts, Associate of Science and Transfer objectives.
2. The following table shows the normal completion time and maximum time for certificate programs of varying length:

Units required for the Certificate Program	Normal Length	Maximum Length
10 to 24	2 semesters	3 semesters
25 to 36	3 semesters	4 semesters
37 to 48	4 semesters	5 semesters

To be eligible for financial aid, a program must be at least 6 months in length. Students enrolled in a certificate program may continue to qualify for financial aid up to 72 units, 6 full-time semesters, or the equivalent, if they are planning to obtain an A.A. or A.S. degree or to transfer to a four year school in addition to obtaining the certificate.

Grading Policy, Course Limitations

In the application of these standards for progress, the Financial Aid Office will follow the policies of the college as described in the college catalog. In particular:

1. In calculating units completed, only those classes passed with an A, B, C, D or CR will be counted as completed classes.
2. Classes in which the student receives grades of F, MC, INC, IP, and W will not be counted as completed classes.
3. The student may not receive credit for a class for which he/she previously received an A, B, C, or CR unless the catalog specifically says that the class may be repeated for credit.
4. Students may receive financial aid for ITV classes taken in conjunction with regular classes within the LACCD. ITV classes cannot exceed 50% of total semester units. They will not be considered for payment until completed and grades are posted.

Appeal Procedure For Reinstatement Of Financial Aid

Students who have been disqualified from receiving financial aid may appeal for reinstatement by submitting a written appeal to the Financial Aid Office in compliance with the procedure outlined in the formal letter of disqualification.

Reinstatement may be granted, denied or postponed subject to fulfillment of specific conditions listed below.

1. The death of a relative of the student.
2. An injury or illness of the student.
3. Other special circumstances.
4. If denied, students may re-appeal after completion of one or more semesters with a 2.0 GPA or better.

Fraud

A student who attempts to obtain financial aid by fraud, will be suspended from financial aid for unsatisfactory conduct.

The college may report such instances to local law enforcement agencies, to the California Student Aid Commission and/or to the Federal Government.

Restitution of any financial aid received in such manner will be required.

Note: The Board of Financial Assistance Program (BFAP), established to help students pay the California Community College enrollment fee, is specifically omitted from the above list. An eligible student enrolled at one of the nine Los Angeles Community College District campuses who applies for the enrollment fee will be granted the assistance irrespective of his/her status under the academic provisions.

Business Office

All student finances are handled through the Business Office. Services available are: collection of fees for enrollment, non-resident, audit, parking, and ASO. The Business Office also processes child development payments, RTD passes, stamps and theater tickets. Grant checks are distributed by this office and repayment collected for returned checks.

Services and Resources

Child Development Center Child Care

The Child Development Center provides care and innovative programs for children, ages 2.9 to 5.9 years, whose parents are enrolled in 6 units or more at Pierce. The Center is open Monday through Friday from 8 a.m. until 3/4 p.m. Children may be enrolled in an all-day session 8 a.m.-3/4 p.m.; a morning session 8 a.m.-12 p.m.; or an afternoon session 12 p.m.-3/4 p.m. A nominal fee is charged and prorated on the basis of family size and income. Some subsidized care is also available.

The Center is staffed by professional teachers specifically trained in Early Childhood Education. The Center offers opportunities for parents to better understand their child's behavior. The Center is also an instructional lab site for observers and practicum students from Pierce and other colleges.

The Center is located on the west side of Winnetka Avenue, just north of Victory Boulevard. For information and an application contact the Child Development Center Office, (818) 719-6494.

College Safety and Police Services

Community college police officers have peace officer authority pursuant to California Penal Code 830.32a and Education Code 72330. They receive the identical training as a municipal police officer or county deputy sheriff and they have the same authority on or about the campus as a municipal police officer or county deputy sheriff. The College Police are responsible for reporting and investigating crimes, issuing traffic citations, responding to medical emergencies, traffic accidents and fire emergencies, as well as other incidents that require police assistance. Please report traffic accidents, injuries, thefts, items lost and found, or any unusual circumstances to the College Police. They are located in College Police 5300, adjacent to the Men's Gym. The Police are on campus twenty-four hours a day, seven days a week.

All lost and found items shall be turned in to the police. Students losing items may claim them at this office. Please report any lost or stolen items.

Parking lots are patrolled for your protection by the Student Patrol and College Police. Please lock vehicle and do not leave anything of value visible. Valuables should be locked in the trunk or left with College Police.

Students will need to seek outside assistance for any vehicle problems such as, keys locked in vehicles, out of gas, and dead batteries.

The College Police issue citations for parking illegally and for traffic violations. Please observe all Parking and Traffic Regulations as posted. Citations are a minimum of $25. A citation for parking in a handicapped zone without a permit is $330. All citations are payable to L. A. Pierce College. Also, be aware of tow away zones. All unpaid citations are sent to the D.M.V. for Registration hold; penalties are added. Be sure to read the current schedule of classes for specific parking and safety rules.

Dogs are not allowed on campus with the exception of guide dogs for the blind. Skateboards, roller skates, and roller blades are not permitted on campus.

Counseling Services

The Counseling Department assists students in making decisions regarding educational, career, and personal concerns. Counseling is available for Educational and Career Planning, and personal and crisis problem situations. These services are provided by professional counselors. Counseling services may be obtained through individual and group counseling and advisement, short-term classes, workshops, reference materials, referrals to resources on or off campus, and through the use of testing (and referral to reference) materials. Counseling can assist individuals to assess interests, abilities, and values; to set goals; and to make plans to accomplish the goals.

Educational Planning and Counseling

Counselors assist students in setting educational goals, exploring alternatives, making decisions regarding their academic programs and understanding the effects of having made these decisions. Short-term courses are also offered to help students develop skills in such areas as decision making and personal development. Counselors are located in the main Counseling Office in the Administration Building. Appointments may be made in the Counseling Office.

Faculty advisors, located in most departments, will also help students with academic and career information related to courses and programs in the academic area of the advisor.

Personal Counseling

Personal counseling may be obtained from counselors in the Counseling Office or at the WoMen's Center. In addition, a Help Center, staffed by counselors, is available to students who feel a need for short-term help with personal problems in a crisis situation. Assistance may be provided through a limited number of individual counseling sessions and referrals. For an appointment go to the Counseling Center, located in the Administration Building

Career/Transfer Center

The Career Services provided are individual appointments, personal development classes and workshops in career planning and job seeking skills for those persons undecided about their career or educational goals. A library of occupational information, including a computerized career information system, is available. The Career Center is located in the Administration Building.

The Transfer Services provide students with the opportunity to personally meet and discuss transfer plans with university representatives. Information on admissions, financial aid and scholarships, housing, and university campus tours is available. Students may obtain applications for California State University, University of California, and other colleges at appropriate times.

Vocational Rehabilitation Services

Students who have a physical, emotional, or other disability which handicaps them vocationally may be eligible for the services of the State Department of Rehabilitation.

These services include vocational counseling and guidance, training (including payment of college costs), and job placement. Under certain circumstances students may also qualify for help with medical needs, living expenses and transportation and other services.

For further information appointments may be made with a counselor in the **Special Services Office.**

Veterans Advisement

Veterans Advisement is available to all veterans and veteran dependents who desire to use their benefits. The Veterans Office is in BUNG 0342.

Study Abroad Program

Los Angeles Community Colleges offer a unique opportunity to study in a foreign country while earning college credit. Students interested in obtaining further information should contact the Counseling Office.

Disabled Students Programs and Services

Students with physical or learning disabilities are offered a wide range of services including registration, special parking and counseling. These services are also available to students with a temporary disability such as injury or post-operative recuperation. All services and equipment are provided free of charge to any qualifying disabled student.

Deaf and learning disabled students are offered additional services including special classes, tutoring and computer- assisted instruction.

The Disabled Students Office is located in the Administration Building, room 1024. The Office is open Monday through Friday from 7:30 a.m. until 4:30 p.m.

The following special services are offered:

- Interpreter services for the deaf
- Notetaking services
- Mobility assistance
- Specialized tutoring
- Registration assistance
- Special parking areas
- On-campus transportation
- Academic and career guidance
- Special equipment including
- Talking calculator
- Print magnifier
- Specially adapted computers

Extended Opportunity Programs and Services

Extended Opportunity Programs and Services (EOPS) is a state-funded comprehensive support system which recruits and assists qualified low-income students with educational disadvantages. EOPS provides academic counseling, career exploration, tutoring, priority registration, book grants, and workshops aimed at helping students succeed in college. Participants must be full-time students.

EOPS is located in BUNG 0340. Office hours are 8 a.m. to 4 p.m., Monday through Friday.

Food Services

Cafeteria

The Cafeteria Building, which is located next to the Campus Center, has full cafeteria service in the Grill Room featuring breakfasts and hot grilled lunch items. The main line Dining Room serves hot entrees, a sandwich deli, soup, fresh salad bar, and pastry. Cafeteria Hours: 6:45 a.m. to 9 p.m., Monday through Thursday and 6:45 a.m. to 2:15 p.m. on Friday.

Vending Machines

Located at various locations on campus. Serving hot and cold drinks, sandwiches, fruit and other miscellaneous snack items. Change machines are available in various vending machine locations.

Information or problems with any or all services, call (818) 719-6412 from 7 a.m. to 2 p.m., Monday through Friday.

Health Services

A variety of health services are available in the Student Health Center located in the Campus Center. The Center provides first aid, crisis intervention, health assessment, health counseling, health referrals, and health information. Students are welcome to drop in or call ext. 270 for an appointment to see a physician, the college nurse, or a nurse practitioner.

The Student Health Center can provide low cost family planning services, extensive gynecological care, and the testing for diagnosis and treatment of sexually transmitted diseases. Most bacterial infections can be treated with low cost antibiotics that the Health Center can supply. Free condoms and over-the-counter medications are also provided on an as needed basis.

Consultation and/or referral regarding personal and emotional problems affecting a student's educational progress are available through the Student Health Center or the Help Center in the Counseling Office.

It is strongly urged that an identifying emblem be worn by persons with any medical problems or allergies. Students with known physical impairments must limit enrollment to courses in which they may participate with safety.

Students are encouraged to obtain a medical insurance plan. A commercial student sickness and accident plan is available through the Student Health Center and the Office of Student Activities in the Campus Center. A dental and optometry plan is also available. Information and applications for plans may be obtained in the Student Health Center or Office of Student Activities.

Students who need medical assistance when the Student Health Center is closed should contact the Campus Police at ext. 450.

Students involved in athletics who require a sports physical must be seen by a physician contracted with the College for that purpose. The Student Health Center is not allowed to perform sports physicals.

Instructional Media Center

The Instructional Media Center is operated by Information Services and is located on the ground floor of the Library. Utilizing cassette tapes, students may receive supplemental instruction in the areas of social science, languages (English, speech, and foreign languages), music, science, drama, office administration, history, accounting, economics, cooperative education, and lectures in various other disciplines. In addition, instructional materials such as filmstrips, records, slide-tape programs and video-tapes are available for faculty. The Instructional Media Center offers the service of duplicating instruction-related cassettes for home use for faculty, subject to Media Center regulations. Students are encouraged to supplement their study in the various subject fields by utilizing the services of the Media Center.

The Learning Center

The Learning Center provides services to improve student productivity in the classroom. The services include tutoring in a variety of disciplines. Small group workshops are given in writing and ESL Conversation. Self-paced credit courses in Academic Reading and Basic Mathematics are given on a credit/no-credit basis. The Special Lecture Series covers topics of academic concern including "The Term Paper," "How to Study for Finals," "Coping with Test Anxiety."

Computers are available for open access class related activities at several locations on campus. There is a computer assisted instruction lab as well as word processing. Students are encouraged to visit The Learning Center to take advantage of the services offered. The Learning Center is located in Room 1613 and 1604 in the Drafting Building. The services are free to Pierce College students. The Learning Center is open Monday to Thursday 9:00 a.m. to 9:00 p.m., and Friday 9:00 a.m. to 2:00 p.m.

Learning Disabilities Program

The Learning Disabilities Program, located in the Disabled Students Office, assists college students with the essential tools needed for success in their classes. Many students need help in basic reading, spelling and arithmetic skills as well as individualized special techniques for the realization of their full potential academically or vocationally.

The student's problems are diagnosed, and an individual program is designed to meet their needs. Students advance at their own rate using a large variety of instructional materials. Special classes and tutorial sessions provide assistance. Specialized tutoring in regular classes can be provided by arranging for individualized adaptations with instructors.

ROTC

Through arrangements with local universities, qualified Pierce College students may participate in the Air Force Reserve Officer Training Corps (AFROTC). Many scholarships are available, and successful completion of as few as four semesters of academic classes and leadership laboratories may lead to a commission as a second lieutenant in the U.S. Air Force. For enrollment information, telephone Loyola Marymount University (LMU) at (310) 338-2770, the University of California, Los Angeles (UCLA) at (310) 825-1742, or the University of Southern California (USC) at (213) 740-2670

Scholarships

Both on-campus and off-campus scholarship announcements are posted in the EOPS Office, BUNG 0340. Applications are available to qualified students. New scholarship announcements are received weekly. Deadlines for scholarships are announced in the Pierce Bulletin.

Student Employment and Housing Services
(Job Placement)

Employment

Students seeking employment are encouraged to use the student employment service (job placement). The office is well known in the business community and employers are constantly placing job orders for skilled and non-skilled employment opportunities in diverse occupational fields. Referrals are available to all enrolled students and graduates, for part-time, full-time, temporary and summer work.

Housing

The office maintains a listing of room and board opportunities in nearby private homes in exchange for work or for rent, as well as sharing situations with other students. Occasionally, houses and guest houses are available. The college does not inspect accommodations which are listed and assumes no responsibility.

Location

The Student Employment Service is located in BUNG 0342.

Student Store

Pierce College's Student Store is located in the center of the campus next to the Library. The store is a meeting place and an adjunct to both the academic and social life of the campus. It is an academically oriented resource, where the need for and interest in reading and study engendered in the classroom can be nurtured and reinforced. The store is also a social focal point on the campus, offering many goods and services required by a multi-varied college community.

Pierce College's Student Store is owned and operated by the Los Angeles Community College District, under policies set down by the Board of Trustees.

The purpose of Pierce College's Student Store is to provide for the sale of book and supply requirements connected with the academic programs of the college. The Student Store is operated on sound business principles in the anticipation that its income will cover both its operating expenses and its attributable capital development costs.

Veterans Services

Veterans applying for educational benefits are responsible for knowing the VA eligibility requirements and regulations. In addition, they must meet the school admission requirements and supply the college with copies of **official transcripts** from previous training. Applications for VA educational benefits, as well as additional information, may be obtained from the Veterans Administration or the staff in our Veterans Office. The VA requires that students request the school's veterans counselor to determine transferable credits before starting their second semester at Pierce

Programs at this college are approved for payment by the Veterans Administration through the Council of Private Postsecondary Education. To receive payment when repeating a class, students must obtain approval from the school's veterans counselor.

Educational Benefits

Veterans attending under the provisions of Public Law 94-502 receive payments at the prevailing rates. A copy of the law is posted in the Veterans Office. Checks received during the month cover the previous month's attendance.

Overpayment to Veterans

The Veterans Administration holds veterans liable for overpayment received for reasons including failure to notify the VA and the school's Veterans Office when they drop a class or receive an incomplete grade. Veterans who receive overpayment should promptly notify the VA and the school's Veterans Office in BUNG 0327. The VA allows only 30 days from the start of the semester for veterans collecting benefits to add or drop classes.

Credit for Military Service

Pierce College grants up to six units of credit for military service. Credit will also be granted for some classes at special military schools. Granting of credit for elective units is based on the veterans' compliance with the following guidelines:

1. Current enrollment.
2. Having served at least 181 days in the armed services.
3. Presenting a copy of military separation paper (DD214) when petitioning for elective credit.

Tutoring

Veterans may apply to the Veterans Administration for reimbursement of tutorial services. Such reimbursement is limited to 12 months, and based on approval arranged through the Veterans Office.

WoMen's Resource/Re-Entry Center

The WoMen's Resource/Re-Entry Center is a program offering support and encouragement for mature students to assist their transition back into college. The program provides the following services to all currently enrolled male and female students as well as those individuals considering returning to pursue educational objectives after a long absence from school:

- Personal counseling
- Academic counseling
- Weekly support groups
- Special seminars and lectures
- Free legal advice
- Small grants
- Emergency book loans
- Scholarships for returning students

The WoMen's Resource/Re-Entry Center is located in the Administration Building, ADM 1002, next to the Counseling Office. Office hours: Monday through Thursday from 9:00 a.m. - 3:00 p.m. Friday 9:00 a.m. to 12 noon. Selected Tuesdays until 6:00 p.m. For information, please call (818) 719-6437.

Student Activities

Co-Curricular Activities

Co-Curricular or extra class activities are intended to provide students with the opportunity to be better prepared to fulfill the duties of citizenship in a democratic society and enrich their educational and personal development. This may be accomplished through extra class cultural activities, volunteer programs related to the instructional program, community-related affairs, athletics, and student government. Students learning to work with groups will develop skills to prepare them for cooperative and meaningful associations in both occupational and personal pursuits.

The development of a student activity program is a vital portion of the obligations that both faculty and administrators assume for students in any American college community. At Pierce, student activities are an integral part of the educational program.

Intercollegiate Athletics and Eligibility

Intercollegiate Athletics are an integral part of the total college program. Men and women compete in the Western States Conference in all sports. The sports offered for men are baseball, football, swimming, tennis, volleyball and water polo. The sports offered for women are softball, swimming, tennis, volleyball, and basketball.

Eligibility

All questions pertaining to athletic eligibility should be directed to the Athletic Director at (818) 719-6421.

Publications

College Newspaper

The college newspaper is published as a learning experience, offered under the college journalism instructional program. The editorial and advertising materials published by the newspaper, including any opinions expressed, are the responsibility of the student newspaper staff. Under appropriate state and federal court decisions these materials are free from prior restraint by virtue of the First Amendment to the United States Constitution. Accordingly, materials published, including any opinions expressed, should not be interpreted as the position of the Los Angeles Community College District, the College, or any District or College officer or employee.

Journalism students produce the award-winning college newspaper, the Roundup, which is published weekly and distributed free to all students. This newspaper contains news of the entire college, both day and evening. Also, journalism students produce a magazine, The Bull, which is distributed free to all students.

Student Government

The Dean of Student Services represents the Faculty and the Administration of the college as sponsor and advisor of the Associated Student Organization. For information on becoming involved, please visit the Student Services Office in the Campus Center.

Associated Students Organization (ASO)

The students of Pierce manage their own affairs through the organization known as the Associated Students Organization (A.S.O.). Each student who enrolls at the college may become a member. The Associated Students Organization provides a framework for all college student activities. Through active participation in such activities as student government, clubs, publication, athletics, and special events of the college, the student renders service, increases social and cultural awareness, improves leadership abilities, and creates a close association with other students. Students are encouraged to serve on campus and A.S.O. committees. For information visit the Student Services Office in the Campus Center.

Qualifications for ASO Officers
(Administrative Regulation E-22)

Administrative Regulation E-22 pertains to elected Associated Students Organization (ASO) officers, officers appointed to elected positions and heads of ASO Standing Committees.

Administrative Regulation E-22 does not apply to clubs, club representatives, ASO special committees and all-college committees, and student trustee.

Administrative Regulation E-22

A student cannot be a candidate for ASO office if he or she has served more than four semesters in a student government elected and/or appointed office, or in any office or position where he or she voted on the expenditure of ASO funds in any college.

1. An officer may serve a fifth semester if he or she is eligible at the time of assuming office (e.g., has served three semesters and is a candidate for an office with a one-year term).
2. Ten weeks or more in office or service will be counted as a full semester.

All students running for office must be paid members in good standing in the Associated Students Organization at the college where the election is being held. A candidate may run for only one campus office on the same ballot.

The candidate/officer must have a cumulative and current GPA of at least 2.0 at the college/district during the semesters in which the student government office is applied for and held. Current means the most recently completed semester.

The candidate/officer must not be on progress probation. Progress probation is defined as having recorded grade entries of "W" (Withdrawal), "I" (Incomplete), "NC" (No Credit) for fifty percent or more of all the units in which a student has enrolled.

The candidate/officer must be actively enrolled, attending and successfully completing classes in a minimum of nine (9) units for students enrolled exclusively in day classes, or enrolled in a combination of day and evening classes, and six (6) units for students enrolled exclusively in evening or Saturday classes at the college where the office is sought or held. Candidates may be enrolled in more than one college in the District, but the candidate must be currently enrolled in a minimum of six (6) units at the college where the candidate is seeking office. Officers must be continuously enrolled in a minimum of six (6) units at the college where the office is held.

Note: Individual colleges, in their ASO constitutions, may set forth standards for office which are higher than those listed above. Pierce requires a GPA of 2.5. Candidates/Officers with disabilities may request special accommodations.

Student Clubs & Organizations

Approximately 30 campus clubs and organizations have open membership to students who are members of the Associated Students Organization. Service clubs, special interest clubs, department-related organizations, and religious clubs offer a variety of opportunities for student involvement.

The club program is coordinated by the Associated Students Organization through the A.S.O. Senate. Clubs which have been active at Pierce during the past semesters include: Alpha Gamma Sigma; Animal Health Technology; Armenian Students Association; Bible Fellowship Club; California Nursing Students Association; Club Latino United for Education; Dance Club; English Circle; International Students Club; Kabataang Filipino; LAGOS; Muslim Student Association; Parents Club; Persepolis; Phi Theta Kappa; Pierce Hillel; Pre-Vet Club; Sign Language Club; and United African-American Student Association.

Information on clubs is available in the Associated Students Office or Student Services Office in the Campus Center.

Student Trustee Election Procedure

The Los Angeles Community College District conducts an election annually whereby each student in the District has an opportunity to be involved in the process of selecting a student representative to the Los Angeles Community College district Board of Trustees.

The process contained in Regulation E-78 provides for a thorough evaluation of the candidates' qualifications and insures an equal opportunity for any individual from any District college campus to seek the position of student representative to the Los Angeles Community College District Board of Trustees.

1. In accordance with existing law, candidates for Student Trustee must:
2. Be residents of the District.
3. Be currently enrolled at a District college.
4. Be enrolled in at least 9 units for day students and 6 units for evening students.
5. Plan to continue as a District resident and enroll as a District student through the one-year term of office.
6. Have completed a minimum of 12 units and a maximum of 60 units of college work.

For further information, contact the Student Services Office in the Campus Center.

International Students Program

International education and the education of students from abroad is a major undertaking of the Los Angeles Community Colleges. Through the exchange of teachers and students, the District seeks to foster mutual respect and understanding for the diversity of cultures, languages, and ideas of the people of the world. The college extends a warm welcome to all students regardless of race, language, sex, nationality, religion, or political ideology.

All students coming from abroad need to contact the International Students Office as soon as they decide to study at Pierce College. Admission requirements for international students are different from those for resident students, students are encouraged to call or write for the application package.

The address is as follows:

International Students Office
Los Angeles Pierce College
6201 Winnetka Avenue
Woodland Hills, CA 91371

A counselor is available to assist international students with academic, career, personal, or immigration issues. A calendar of social activities is planned for international students each semester which includes theater parties, camping trips, visits to local points of interest, holiday parties, and regular "rap" sessions designed to encourage the discussion of a wide range of issues and concerns.

Although the college does not have any dormitories, students can receive assistance in locating suitable housing through the International Students Office.

Associate Degree Programs

Graduation Requirements

The Board of Governors of the California Community Colleges has authorized the Los Angeles Community College District Board of Trustees to confer the degrees of Associate in Arts and Associate in Science.

The awarding of an Associate Degree symbolizes a successful attempt on the part of the College to lead students through patterns of learning experiences designed to develop certain capabilities and insights. Among these are the ability to think and to communicate clearly and effectively both orally and in writing; to use mathematics; to understand the modes of inquiry of the major disciplines; to be aware of other cultures and times; to achieve insights gained through experience in thinking about ethical problems; and to develop the capacity for self-understanding. In addition to these accomplishments, the student should possess sufficient depth in some field of knowledge to contribute to lifetime interest.

Continuing students should follow the graduation requirements in the catalog in effect at the time of their initial enrollment. A continuing student is one who has completed a minimum of one course per calendar year.

Students who interrupt their attendance, except as noted above, become subject to any new requirements which are in effect at the time they re-enroll.

Unit Requirement 60 to 64 units of course credit in selected degree applicable courses. One credit hour of community college work is approximately three hours of recitation, study, or laboratory work per week throughout a term of 16 weeks.

Scholarship Requirement A "C" (2.0) grade average or better in all degree applicable courses attempted.

Competency Requirement Students must demonstrate competence in reading, in written expression, and in mathematics. The following courses and examinations are approved to meet the competency requirement for the associate degree as defined in Board Rule 6201.12:

A. The competency requirement in reading and written expression for the associate degree may be met by:

1. The competency requirement in reading and written expression for the A.A./A.S. Degree may be met by completion of "one" of the following courses (or its equivalent at another college) with a grade of "C" or better.
   - **English** 28
   - **English** 31
   - **English** 101
   - **Journalism** 101

Competency may be met through credit-by-examination, as determined by the individual colleges.

B. The competency requirement in mathematics may be met by:

1. Completion of one of the following courses (or its equivalent at another college) with a grade of "C" or better:
   - **Mathematics** 113 & 114, 115, 116, 119, 146, 147 or any higher math course with a prerequisite of Math 115 or its equivalent,
   - **Computer Tech** 60;
   - **Electronics** 10, 12, 14;
   - **Gen Engr Tech** 121;
   - **Engr Tech** 49, 50, 51;
   - **Statistics** 1.
2. May also be met by achieving a satisfactory score on the Math Competency Exam i.e. 15 or higher.

Residence Requirement Completion of at least 12 degree-applicable units of work in residence and attendance at the College during the semester in which the graduation requirements are completed. Exceptions may be made under special circumstances.

Course Requirements Students who are majoring in programs of study for which 18-35 units are required in the major shall complete Graduation Plan A. Students who are majoring in programs of study for which 36 or more units are required in the major shall complete Graduation Plan B.

Campus Procedure

Completing the Associate Degree

1. Students who desire an AA or an AS degree must file a petition to graduate no later than the beginning of the semester prior to the one in which they expect to complete the requirements. (See Schedule of Classes Calendar page for exact dates.)
2. Students must designate which plan they are using to obtain the degree. The choice should be based on these guidelines:
   a. Choose Plan A if courses have been chosen to prepare for transfer to a four-year college or university OR if courses have been chosen to obtain a two-year general studies education.
   b. Choose Plan B if courses have been chosen to complete those listed in one of the two-year occupational programs shown in another section of this catalog or if planning to transfer to a four-year institution as an engineering major.
3. Restrictions Under Plan A
   A student must show at least 36 CSU-transferable units in the 60 units required regardless of the transfer institution to which the student will transfer.
4. Substitution of Graduation Requirements
   In unusual or special circumstances it is possible to petition for substitution of major requirements as well as general education graduation requirements. Graduation requirements are never waived, only substitutions are considered. Situations in which petitioning might be appropriate include course requirements that are not currently being offered at Pierce or substitution of more advanced courses for lower level requirements due to previous technical experience in a particular area. Petitions for Substitution of Graduation Requirements are available in the Graduation Office.

Note: The following limitations apply to Graduation Plan A or B.

1. A student may not use more than two courses taught in any department in order to satisfy General Education Requirements. (See Departmental Organization listed in the back of this catalog.)
2. A student may not duplicate disciplines (for example, History 11 from B, 1, with History 3 from B, 2) in selecting courses to meet the requirements in each of the sections of B and D.
3. While a course might satisfy more than one general education requirement, it may not be counted more than once for these purposes. It may be counted again for a different degree requirement as determined by the College.

PLAN A:

To be used by students who desire to obtain a general studies associate degree and by transfer students (except Engineering majors) who should coordinate this plan with the requirements of the college of transfer (see a counselor).

Major Requirements: At least 18 semester units of study taken in a single discipline or related disciplines.

Under Plan A: A student must complete at least 56 CSU transferable units in the 60 units required regardless of the transfer institution to which the student will transfer

General Education Requirements: 30 units in the following pattern:

Section A: Natural Science - Select 3 units from the following courses:

Agri 103, 511, 711, 712, 901, 940, 950; Anthro 101; Astron 1, 3; Biology 3, 6, 10, 25, 39; Chem 40, 45, 51, 60, 101; Co Sci 570; Electrn 2, 4, 6, 8; Env Sci 1, 2, 7, 18; Geog 1, 3, 9, 17; Geology 1, 4, 10, 11; Meteor 3; Oceano 1, 10, 12; Physics 6, 12, 37-39; Phys Sci 1, 4, 5; Physiol 1, 8, 9; Psych 2.

Section B: Social and Behavioral Sciences - 9 units

NO DUPLICATION OF DISCIPLINES

1. Select 3 units from the following courses:
   History 11-13, 41, 42, 52; Pol Sci 1, 30.
2. Select 3 units from the following courses:
   Agri 110; Anthro 102, 103, 112, 132, 141; Bus 1, 5, 6; Econ 1, 2, 10; Env Sci 17; Geog 2, 5, 10, 14; History 3-6, 8, 15, 20, 21, 27, 30, 40, 50; Journal 100 (replaces Journal 5 and 12); Mgmt 31, 33; Off Adm 70; Pol Sci 2, 7, 14, 35; Psych 1, 3, 6, 11, 13, 14, 16, 18, 42, 51, 52; Soc 1-3, 6, 7, 13, 17, 18, 28; Spanish 10 (same as Hist 23), 26; Supv 2, 6.
3. Select 3 additional units from numbers 1 or 2 in this section.

Section C: Humanities - Select 3 units from the following courses:

ASL 1-4, 40; Anthro 104 (same as Ling 1), 105, 121, 123; Art 101, 102, 103, 111, 201, 400, 500-502, 614, 700, 708, 721, 805; Cinema 3, 18; English 102, 203-208, 211-216, 239, 240, 250, 252, 270; French 1-4; History 1, 2, 7; Human 1, 6, 11-14, 30, 31, 60, 61, 88, 89; Italian 1-4; Japan 1-4, 8, 27; Ling 1 (same as Anthro 104); Music 101, 111, 121, 122, 152, 181-184, 201-203, 321-324, 411-414, 501, 531, 561, 601-604, 611-614, 621, 624, 651, 705, 721, 741, 745, 755; Philos 1-4, 12, 19, 20, 22, 24, 25, 86; Photo 10, 27B; Soc 11, 15; Spanish 1-4, 8, 12, 15, 25, 27; Speech 130; Theater 100, 105, 110, 115, 125, 130, 265, 270, 300, 400.

Section D: Language and Rationality - 12 units

NO DUPLICATION OF DISCIPLINES

1. Select 3 units from the following courses:
   English 28, 101; Journal 101, 108; Off Adm 31, 32.
2. Select 6 units from the following courses
   Acctg 1, 21; Agri 211; Bus 38; Co Sci 501, 504, 506, 507, 508, 513, 575; Electrn 10, 12, 14; Math 115, 116, 125, 145, 146, 215, 227, 230, 238 (replaces 235), 239 (replaces 236), 240, 245, 255, 260, 261; Off Adm 77; Philos 6, 7, 9, 201; Psych 26; Soc 4; Speech 101, 103, 104, 121, 122; Stat 1; Supv 11
3. Select 3 additional units from numbers 1 or 2 in this section.

Section E: Health and Physical Education Activity- 3 units minimum.

Students who have served in the U.S. Armed Services or have completed Police or Fire Department recruit academy training programs may be eligible to waive the health and P.E. graduation requirements. Contact the Graduation Office for details.

1. Health 9, 10, 11 - 2 units minimum.
2. Physical Education: Activity course chosen from Phys Ed 100 through 600 or Phys Ed 90A, 90B, 91, 96, 666, 690 or 702 - 1 unit minimum

PLAN B:

To be used by students following an occupational program and engineering majors who desire to transfer.

Major Requirements: At least 36 semester units of study taken in a single discipline or related disciplines.

General Education Requirements: 18 units in the following pattern:

Section A: Natural Science - Select 3 units from the list of natural science courses listed in Plan A, Natural Science section.

Section B: Social and Behavioral Sciences - Select 3 units from the list of social and behavioral sciences courses listed in Plan A, Social and Behavioral Sciences, Section B-1.

Section C: Humanities - Select 3 units from the list of humanities courses listed in Plan A, Humanities.

Section D: Language and Rationality - 6 units minimum - Select 3 units from the courses listed in Language and Rationality, Section D-1 of Plan A, and 3 additional units from Section D-2 of Plan A.

Section E: Health and Physical Education Activity - Select Health 9, 10 or 11, plus 1 unit of any physical activity course 90A, 90B, 91, 96, 100 through 600 or Phys Ed 666, 690 or 702. Graduates of the Nursing program are exempt from the health education requirement, also prior military service for any major.

Completing the Associate Degree

1. Students who desire an AA or an AS degree must file a petition to graduate during the semester prior to the semester in which they expect to complete the requirements. See the college calendar on page 3 of the schedule of classes for exact dates to petition.
2. Students must designate which plan they are using to obtain the degree. The choice would be based on these b\guidelines:
   a. Choose Plan A if courses have been chosen to prepare for transfer to a four-year college or university in any major other than engineering OR if courses have been chosen to obtain a two-year general studies education. If you are a transfer student, be sure to coordinate courses chosen in Plan A with requirements of the college of transfer. PLAN A IS NOT A TRANSFER PLAN.
   b. Choose Plan B if courses have been chosen to complete the requirements for a two-year occupational program or if planning to transfer to a four-year institution as an engineering major. The two-year occupational programs are listed in the Pierce Catalog under the heading "Educational Programs." All requirements for the program must be completed in addition to Plan B.

Educational Programs

Academic Associate Degree Programs

Academic Associate Degree programs are designed to give the student an expanded educational experience in one academic area. Students are required to take a minimum of 18 degree-applicable semester units in a specific subject area.

The Liberal Arts major allows the student who has not yet decided on a major field of study the opportunity to sample courses in a variety of subjects.

The student must complete at least 30 semester units of general education requirements as listed in Graduation Plan A. In addition, 18 semester units of degree-applicable courses are required. These may be taken in a variety of subject areas. A total of 60 units is required for the degree, of which 36 must be CSU transferable.

Occupational Associate Degree Programs

These programs are designed to give the student job skills to use for employment purposes and to provide an Associate Degree upon the successful completion of a two year occupational program.

Occupational Certificate Programs

Occupational Certificates are awarded upon successful completion of a series of courses leading to mastery of specific job skills. A grade of "C" or better is required in each course.

	Degree	Certificate
Agriculture Business		
Floral Design and Management	AS	C
General Agriculture	AS	C
Horse Science	AS	C
Horticulture		
Basic Gardening (Basic)		C
Basic Gardening (Advanced)		C
General Horticulture	AS	C
Greenhouse and Nursery Industry	AS	C
Landscape Installation and Maintenance Industry	AS	C
Landscape Planning and Design	AS	C
Landscape Technician (Basic)		C
Landscape Technician (Advanced)		C
Professional Gardening		C
Natural Resources Management	AS	
Pre-Veterinary Medicine	AS	
Veterinary Technology	AS	
American Sign Language (Interpreter for the Deaf)	AA	
Architecture		
Architecture Technology	AA	C
Construction Technology	AS	C
Art		
Graphic Design	AA	C
Technical Illustration		
Commercial	AA	
Industrial	AA	C
Business Administration		
Accounting	AA	C
General Business	AA	
Management and Supervision	AA	C
Marketing	AA	C
Real Estate	AA	C
Computer Science		
Programming for Business	AA	C
Programming for Microcomputers and Small Business Systems		C
Programming for Computer Science	AS	C
Computer and Network Technology	AS	
Microcomputer Service Technology		C
Network Technology		C
Electronics		
Digital Option		C
Communications Option		C
Analog Option		C
Electronics	AS	
Industrial Technology		
Automotive Service Technology	AS	C
Drafting - Mechanical	AA	C
General		C
Numerical Control Programming	AS	C
Welding		C
Woodwork/Cabinetmaking		C
Journalism	AA	C
Nursing	AA	
Office Administration		
Professional Secretary	AA	C
General Administrative	AA	C
Legal Office Procedures	AA	C
Office Communications		C
Basic Word Processing: WordPerfect		C
Basic Word Processing: Microsoft Word for Windows		C
Basic Computer Applications		C
Basic Computerized Accounting		C
Photojournalism	AA	C
Pre-Engineering	AS	
Theater		
Costume Option	AA	
Technical Theater Option	AA	

Academic Associate Degree Programs

Fine Arts	AA
French	AA
Italian	AA
Latin American Studies	AA
Liberal Arts	AA
Music	AA
Pre-Engineering	AS
Religious Studies	AA
Spanish	AA
Theater	AA

Student Responsibility

The suggested sequence of courses in each program is the most desirable to follow; but the order may be changed, if necessary, as long as prerequisites are met. It is the student's responsibility to meet course prerequisites and graduation requirements. The general education and physical education requirements for the Associate Degrees are listed in previous sections of this catalog.

Students planning to transfer to bachelor degree programs should consult a counselor to verify requirements.

Departments' Occupational Programs

Agriculture Department
- Floral Design and Management
- General Agriculture
- Horse Science
- Horticulture
  - Basic Gardening
  - General Horticulture
  - Greenhouse and Nursery Industry
  - Landscape Installation and Maintenance Industry
  - Landscape Planning and Design
  - Landscape Technician
  - Professional Gardener
- Natural Resources Management
- Pre-Veterinary Medicine
- Veterinary Technology

Art Department
- Architecture Technology
- Construction Technology
- Fine Arts
- Graphic Design

Business Administration Department
- Accounting
- General Business
- Management and Supervision
- Marketing
- Real Estate

Computer Science and Information Technology Department
- Programming for Business
- Microcomputers and Small Business Systems
- Programming for Computer Science
- Computer and Network Technology
- Microcomputer Service Technology
- Network Technology

Earth Science/Physics Department
- Pre-Engineering

Electronics Department
- Electronics
  - Digital Option
  - Communications Option
  - Analog Option

Industrial Technology Department
- Automotive Service Technology
- Drafting - Mechanical
- Industrial Technology, General
- Machine Shop Technology
- Numerical Control Programming
- Welding
- Woodworking/Cabinetmaking

Interdisciplinary Program
- Religious Studies

Media Arts Department
- Journalism
- Photojournalism

Modern Languages Department
- American Sign Language/Interpreting
- Latin American Studies
- Spanish

Music Department
- Music

Nursing Department
- Nursing

Office Administration Department
- Professional Secretary
- Legal Office Procedures
- General Administrative
- Office Communications
- Basic Word Processing: Word Perfect
- Basic Word Processing: Microsoft Word for Windows
- Basic Computer Applications
- Basic Computerized Accounting

Theater Department
- Theater
- Theater - Costume Option
- Theater - Technical Theater Option

Agriculture - Business

Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree

This program is designed to offer students the opportunity to earn a degree in Agriculture-Business.

AREA A - COURSES FROM THE BUSINESS DEPARTMENT

	UNIT
Accounting 1	5
Business 1	3
Marketing 1	3
Management 13	3
Marketing 21	3
Office Administration	3
Finance 8	3

AREA B - COURSES FROM THE AGRICULTURE DEPARTMENT

Any 23 units from the Agriculture Department.

UNITS
23

AREA C - ELECTIVES

Any courses approved by either department chairs of Agriculture or Business

UNITS
6

Agriculture - Floral Design And Management

Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

This program is designed to prepare a person as a floral designer, flower shop manager or owner. The program has been developed through an advisory committee of floral designers, cut flower business persons, and Pierce College faculty.

AREA A - CORE PROGRAM

		UNITS
*Agri 701	Retail Floral Design and Practices I	2
*Agri 702	Retail Floral Design and Practices II	2
*Agri 703	Retail Floral Design and Practices III	2
*Agri 704	Advanced Retail Floral Design and Practices	2
Agri 708ABC	Floristry Projects	6

**These courses must be taken in sequence.*

AREA B - MAJOR ELECTIVE

Students select related courses approved by the department. Suggested courses include, but are not limited to the following: Acctg 1, Agri 209, 711 or 712, 756, 760-762, 764, Art 201, 501, Bus 5, Mgmt 13. 28

AREA C - GENERAL EDUCATION

Units selected from College Catalog to meet graduation requirements. See Plan B. 18

Certificate Program

This program teaches students the flowers and plants in Southern California used primarily in the florist trade. In laboratory work the student learns corsage making, flower arrangements, funeral offerings, and the use of plastic flowers.

Lectures include shop management, buying, and salesmanship. Upon completion of the certificate program, the student is qualified to be employed in a flower shop.

REQUIRED COURSES

		UNITS
*Agri 701	Retail Floral Design and Practices I	2
*Agri 702	Retail Floral Design and Practices II	2
*Agri 703	Retail Floral Design and Practices III	2
*Agri 704	Advanced Retail Floral Design and Practices	2
Agri 708ABC	Floristry Projects	6

These courses must be taken in sequence.

ELECTIVES

UNITS

Students select related courses approved by the department. Suggested courses include, but are not limited to the following: Acctg 1, Agri 209, 711 or 712, 756, 760-762, 764, Art 201, 501, Bus 5, Mgmt 13 16

Agriculture - General Agriculture

Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

This program is designed to give students a broad background to prepare them for many different occupations in the field of agriculture and agricultural business.

AREA A - REQUIRED MAJOR CLASSES

		UNITS
Agri 103	Introduction to Soils	3
Agri 501	Principles of Animal Science	3
Agri 714	Principles of Horticulture	3
Agri 901	Natural Resources Conservation	3
ANY	100 Series Class	3
ANY	500 Series Class	3
ANY	600 Series Class	3
ANY	700 Series Class	3
ANY	800 Series Class	3
CoSci 530	Microcomputer Application Software	3

AREA B - MAJOR ELECTIVES

Additional classes should be selected from any Agriculture courses. 20

AREA C - GRADUATION GENERAL EDUCATION REQUIREMENTS

See catalog for requirements. 17

Certificate Program - Total 30 units

		UNITS
Agri 103	Introduction to Soils	3
Agri 501	Principles of Animal Science	3
Agri 714	Principles of Horticulture	3
ANY	500 Series Classes	6
ANY	600 Series Classes	3
ANY	700 Series Classes	3
ANY	800 Series Classes	6
ANY	Business Classes	9
CoSci 530	Microcomputer Application Software	3

Agriculture - Horse Science

Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

This program is designed to prepare students for a variety of jobs in the horse industry and is molded around a core of horse science, agriculture, and general education courses. Extensive practical experience and field trips to many horse facilities in and near Los Angeles County complement the academic portion of the program.

AREA A - CORE COURSES

		UNITS
[1]Agri 103	Introduction to Soils	3
Agri 601	Horse Production	3
Agri 602	Horse Husbandry	3

AREA B - REQUIRED MAJOR

Agri 501	Principles of Animal Science	3
Agri 505	Animal Nutrition	3
Agri 510	Animal Health and Disease Control	3
[1]Agri 511	Anatomy and Physiology of Animals	3
Agri 603	Equine Management Techniques	10
Agri 611	Farrier Science	2
Agri 620	Basic Equitation	1
Agri 621	Horseback Riding Laboratory	1
Agri 630	Beginning Equine Training	2
Agri 631	Advanced Equine Training	2
Agri 650	Equine Health and First Aid	2

AREA C - MAJOR ELECTIVES

Select from any of the Agri 100, 200, 300, 500 or 600 series courses. 10

AREA D - GENERAL EDUCATION

See Plan B. 20

Certificate Program

		UNITS
Agri 501	Principles of Animal Science	3
Agri 505	Animal Nutrition	3
Agri 510	Animal Health and Disease Control	3
Agri 511	Anatomy and Physiology of Animals	3
Agri 601	Horse Production	3
Agri 602	Horse Husbandry	3
Agri 620	Basic Equitation	1
Agri 621	Horseback Riding Laboratory	1
Agri 630	Beginning Equine Training	2
ANY	Agri 100, 500 or 600 series courses	6

[1]*Meets General Education Requirements, Plan B, Part A.*

Agriculture - Horticulture

HORTICULTURE - GENERAL

Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

AREA A - CORE PROGRAM

		UNITS
[1]Agri 103	Introduction to Soils	3
[1]Agri 711	Botany for Horticulture	4
Agri 714	Principles of Horticulture	3
Agri 800	Plant Identification and Use I	3
Agri 840	Introduction to Pest Management	3
Agri 896A-C	Horticulture Projects A-C	1-6

AREA B - REQUIRED COURSES

Agri 716	Arboriculture I (Care of Trees and Shrubs)	1
Agri 742A	Practicum in Horticulture A	1
Agri 756	Greenhouse Plant Production or	3
Agri 757	Plant Propagation	3
Agri 760	Indoor Plant Care and Maintenance I	1
Agri 808	Residential Landscape Design	3
Agri 812	Landscape Installation and Maintenance I	3

AREA C - MAJOR ELECTIVES

Select from 700 or 800 series courses or other courses as approved by the Department. 7

AREA D - GENERAL EDUCATION

See Plan B 15

[1]*Meets General Education Requirements, Plan B, Part A.*

HORTICULTURE - GREENHOUSE AND NURSERY INDUSTRY

Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

AREA A - CORE PROGRAM

		UNITS
[1]Agri 103	Introduction to Soils	3
[1]Agri 711	Botany for Horticulture	4
Agri 714	Principles of Horticulture	3
Agri 800	Plant Identification and Use I	3
Agri 840	Introduction to Pest Management	3
Agri 896A-C	Horticulture Projects A-C	1-6

AREA B - REQUIRED COURSES

		UNITS
Agri 112	Fertilizers and Plant Nutrition	3
Agri 716	Arboriculture I (Care of Trees and Shrubs)	1
Agri 742B	Practicum in Horticulture B	1
Agri 756	Greenhouse Plant Production	3
Agri 757	Plant Propagation	3
Agri 760	Indoor Plant Care and Maintenance I	1
Agri 808	Residential Landscape Design	3
Agri 848	Training for Pest Control License	3

AREA C - MAJOR ELECTIVES

	UNITS
Select from Agri 700 or 800 series courses or other courses as approved by the Department	7

AREA D - GENERAL EDUCATION

	UNITS
See Plan B for specific requirements.	15

[1]*Meets General Education Requirements, Plan B, Part A.*

HORTICULTURE - LANDSCAPE INSTALLATION AND MAINTENANCE INDUSTRY

Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

AREA A - CORE PROGRAM

		UNITS
[1]Agri 103	Introduction to Soils	3
[1]Agri 711	Botany for Horticulture	4
Agri 714	Principles of Horticulture	3
Agri 800	Plant Identification and Use I	3
Agri 840	Introduction to Pest Management	3
Agri 896A-C	Horticulture Projects A-C	1-6

AREA B - REQUIRED COURSES		UNITS
Agri 112	Fertilizers and Plant Nutrition	3
Agri 716	Arboriculture I (Care of Trees and Shrubs)	1
Agri 722	Care of Horticulture Equipment I	1
Agri 808	Residential Landscape Design	3
Agri 812	Landscape Installation and Maintenance I	3
Agri 815	Blueprint Reading and Cost Estimating	2
Agri 818	Basic Construction Techniques	3
Agri 820	Irrigation Design and Installation	3
Agri 822	Turf and Groundcover Management	3
Agri 848	Training for Pest Control License	3

AREA C - MAJOR ELECTIVES

	UNITS
Select from 700 or 800 series courses or other courses as approved by Department.	7

AREA D - GENERAL EDUCATION

	UNITS
See Plan B for specific requirements. [1] *Meets General Education Requirements, Plan B, Part A.*	15

HORTICULTURE - LANDSCAPE PLANNING AND DESIGN

Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

AREA A - CORE PROGRAM

		UNITS
[1]Agri 103	Introduction to Soils	3
[1]Agri 711	Botany for Horticulture	4
Agri 714	Principles of Horticulture	3
Agri 800	Plant Identification and Use I	3
Agri 840	Introduction to Pest Management	3
Agri 896A-C	Horticulture Projects A-C	1-6

AREA B - REQUIRED COURSES

		UNITS
Agri 801	Plant Identification and Use II	3
Agri 802	Plant Identification and Use III	3
Agri 806	Landscape Planning and Design	4
Agri 807	Advanced Landscape Planning and Design	4
Agri 812	Landscape Installation and Maintenance I	3
Agri 815	Blueprint Reading and Cost Estimating	2
Agri 818	Basic Construction Techniques	3
Agri 820	Irrigation Design and Installation	3
Agri 822	Turf and Ground Cover Management	3

AREA C - MAJOR ELECTIVES

	UNITS
Select from Agri 700 or 800 series courses or other courses as approved by the Department	4

AREA D - GENERAL EDUCATION

	UNITS
See Plan B for specific requirements. [1] *Meets General Education Requirements, Plan B, Part A.*	15

HORTICULTURE

-Certificate Programs

These programs are designed to prepare a student for employment in the field of horticulture. Individuals are prepared for employment by various private companies in the horticulture industries, governmental agencies, or to become self-employed. These programs may also serve as continuing education for those already employed in some field of horticulture. Students with a casual interest in horticulture desiring to take classes for information and interest are also accepted.

	UNITS
Certificate of Gardening (Basic)	10
Certificate of Gardening (Advanced)	20
Landscape Technician (Basic)	30
Landscape Technician (Advanced)	40
Professional Gardening Certificate	50

Agriculture - Natural Resources Management

Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

The Natural Resources Management Program at Pierce College is designed to provide students with a two-year Associate Science Degree. Courses are oriented and designed to give students practical outdoor skills and experience which are necessary in resource management today. Included are techniques of native shrub and tree identification, propagation, planting, and management; soil profile study; resource data collection techniques; basic land measurement skills; and topographic map/aerial photo interpretation. Independent study, projects, and work experience are encouraged. Emphasis is placed on acquainting the student with government resource management agencies and their associated career areas.

REQUIRED CLASSES

		UNITS
[1]Agri 103	Introduction to Soils	3
Agri 181A-D or Agri 185 Agri 285 Agri 385	Field Work A-D Directed Study	1-4
[1]Agri 711	Botany for Horticulture	4
Agri 901	Natural Resources Conservation	3
Agri 902	Natural Resources Laboratory	1
Agri 905	Introduction to Outdoor Recreation	2
Agri 940	Introduction to Forest Management	2
Agri 950	Introduction to Wildlife Management	2
Agri 960	Wildland Fire Science	2
Agri 975	California Native Plants	3
Biology 10	Natural History I	4
Geology 1	Physical Geology	3

Major Electives Part A (Minimum of 10 units)

		UNITS
Agri 906	Outdoor Recreation Management Laboratory	1
Agri 920	Natural Resource Construction Techniques	2
Agri 930	Maps/Aerial Photos	2
Agri 931	Natural Resources Measurement	2
Agri 941	Forest Management Laboratory	1
Agri 942	Urban Forestry	2
Agri 944	Global Forestry	2
Agri 951	Wildlife Management Laboratory	1
Agri 961	Wildland Fire Science Laboratory	1
Agri 970	Range Management	3
CoSci 530	Microcomputer Application Software	3

Major Electives Part B (Minimum of 7 units)

		UNITS
Agri 716	Arboriculture I (Care of Trees and Shrubs)	1
Anthro 103	Archaeology: Reconstructing of Human Past	3
Anthro 132	North American Indians	3
English 22	Technical English	3
Geog 14	Geography of California	3
Geology 10	Introduction to Environmental Geology	3
Geology 11	Introduction to Geology: Our National Parks and Monuments	3
Geology 12	Introduction to the Geology of California	3

Oceano 1	Introduction to Oceanography	3
Speech 101	Oral Communication I	3

General Education

	UNITS
See Plan B for specific requirements.	17

[1]Meets General Education Requirements, Plan B, Part A.

Agriculture - Pre-Veterinary Medicine

Department Subject Advisor: Dr. Lee Shapiro

PRE-VETERINARY MAJOR

The Pierce College Pre-Veterinary Program has an articulation agreement with the U.C. Davis School of Veterinary Medicine. This agreement allows our pre-veterinary students to apply directly to the Veterinary school after completing an AS degree and taking upper division Genetics and Embryology classes at another college. Work with veterinarians is required for admission to Veterinary school, so that students understand the duties and responsibilities of a practitioner. The minimum requirement for animal, veterinary, and biomedical science experience is 180 hours. Experience should include work with large and small animals and a variety of species. Agriculture classes at Pierce College with corresponding laboratory sections are appropriate ways to gain experience even though many are not UC transferrable for credit. We encourage pre-veterinary students to get involved in the laboratory classes with veterinary technology students.

PRE-VETERINARY ACADEMIC TRAINING

		UNITS
Agri 401	Orientation to Veterinary Science	1
Agri 501	Principles of Animal Science	3
Agri 505	Animal Nutrition	3
Agri 511/512	Anatomy and Physiology	4
American History/Government		3
Biology 6	General Biology I (Prerequisite college chemistry with laboratory)	5
Biology 7	General Biology II	5
Chem 101	General Chemistry I	5
Chem 102	General Chemistry II	5
Chem 211	Organic Chemistry for Science Majors I	5
Chem 221	Biochemistry for Science Majors	5
English 101, 102, and one additional English class		9
Humanities and Social Sciences		9
Math 227	Statistics	4
Physics 6 (Prerequisite Trigonometry)	General Physics I	4
Physiol 1	Introduction to Human Physiology I	4

PRE-VETERINARY EXPERIENTIAL TRAINING

Choose a combination of courses so that actual laboratory / hands-on time will apply towards the experience

		UNITS
Agri 410/411	Animal Nursing I/Laboratory	3
Agri 420/421	Clinical Procedures in Animal Care I/ Laboratory	3
Agri 430/431	Veterinary Clinical Pathology/Laboratory	3
Agri 435/436	Veterinary Radiography/Laboratory	3
Agri 441	Large Animal Nursing Laboratory	2
Agri 603	Equine Management Techniques	2
Agri 650	Equine Health and First Aid	2

The Pierce Agriculture Department also offers electives for those veterinary science students who wish to develop particular areas of interest or for anyone who wants to enhance his or her knowledge of animals.

ELECTIVES (OPTIONAL)

		UNITS
Agri 120	Ethical Issues of Using Animals	3
Agri 450	Introduction to Animal Facilitated Therapy	1
Agri 460	First Aid for Companion Animals	2
Agri 466	Avian Care and Husbandry	1
Agri 505	Animal Nutrition	3
Agri 596	Agricultural Enterprise Projects	10
Agri 601	Horse Production	3
Agri 602	Horse Husbandry	3
Agri 603	Equine Management Techniques	10
Agri 650	Equine Health and First Aid	2

Agriculture - Veterinary Technology

Department Subject Advisor: Elizabeth White

Pierce College offers AS degrees in veterinary technology and pre-veterinary medicine. The veterinary technology major qualifies a student to take the California State Board Examination to become a licensed Animal Health Technician.

The Agriculture Department boasts a variety of animal species on campus, including horses, beef, cattle, sheep, dogs, cats, rabbits, pigs, and llamas. We also have a fine library which complements the Pierce College Library. Our faculty includes a Veterinarian, a Ph.D., a Registered Veterinary Technician, a Registered Small Animal Dietician and Reproductive Specialist, a successful rodeo rider and horse trainer, and other experienced and friendly "animal-people." Faculty advisement is available and highly recommended.

VETERINARY TECHNOLOGY MAJOR

The Veterinary Technology Major is accredited by the American Veterinary Medical Association. The program is experience oriented with lecture classes complementing hands-on laboratory work. To qualify for this program, the student must complete the following requirements:

1. Submit application, which can be obtained from Veterinary Technology office. Applications are due finals week of each semester.
2. Complete the following coursework:
   a. Agri 180
   b. Agri 401
   c. Agri 501 and 510
   d. Agri 511 and 512
3. One semester of Agri 181A: Field Experience at Veterinary Hospital.

The remainder of the classes for veterinary technology may be taken in any sequence. The coursework may be completed in 2 years, but most students take longer. A grade of D or F in any class is grounds for dismissal from the Veterinary Technology Program.

Student enrolled in AG 420, 421, 422, 423, 410, 411, 412, 413 must participate in daily kennel duty.

The faculty encourage your participation in the Veterinary Technology Club.

CORE CLASSES FOR VETERINARY TECHNOLOGY

		UNITS
Agri 181	Field Work	3
Agri 401	Orientation to Vet Tech	1
Agri 501	Principles of Animal Science	3
Agri 510	Animal Health & Disease Control	3
Agri 511/512	Anatomy & Physiology of Animals	4
*See catalog for choices		
English 101	College Reading and Composition I	3
Health and Physical Education		3
*Humanities		3
*Language and Rationality		6
Math 115	Elementary Algebra	5
*Natural Sciences		3
Off Adm 82	Microcomputer Software Survey in the Office	3
*Social and Behavioral Sciences		3

VETERINARY TECHNOLOGY MAJOR

		UNITS
Agri 402	Topics in Veterinary Technology	2
Agri 410/411	Animal Nursing I/Laboratory	3
Agri 412/413	Animal Nursing II/Laboratory	3
Agri 420/421	Clinical Procedures I/Laboratory	3
Agri 422/423	Clinical Procedures II/Laborstory	3
Agri 430/431	Veterinary Clinical Pathology	3
Agri 435/436	Veterinary Radiography/Laboratory	3
Agri 441	Large Animal Nursing Laboratory	2
Agri 470	Laboratory Animal Care	3
Agri 480	Clinical Experience for Animal Technicians	9
Biology 3	Introduction to Biology	4
Chem 51	Fundamentals of Chemistry I	5
Micro 20	General Microbiology	4

American Sign Language/Interpreting Program

Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

This program is designed to prepare for a career in interpreting for the deaf. Students will be trained in the various aspects of interpreting and upon completion of the program should be prepared to work in the field. As an interpreter one will function as a facilitator between the deaf person and the hearing person.

FALL SEMESTER I		UNITS
A S L 3	American Sign Language III	4
A S L 16	Creative Signing	2
A S L 30	Fingerspelling	1
A S L 40	Introduction to Deaf Culture	3
*English 101	College Reading and Composition I	3
*Gen Ed	General Education	3
SPRING SEMESTER I		
A S L 4	American Sign Language IV	4
A S L 5	Introduction to Interpreting	3
*Anthro 104	Human Language and Communication	
or		
*Ling 1	Introduction to Language and Linguistics	3
A S L 31	Fingerspelling II	1
*Speech 121	The Process of Interpersonal Communication	
or		
*Speech 101	Oral Communication I	3
FALL SEMESTER II		
A S L 6	Voice to Sign Interpreting I	4
A S L 10	Sign to Voice Interpreting I	4
A S L 17	Ethics and Professional Standards of Interpreting	3
*Gen Ed	Graduation General Education Requirement	3
SPRING SEMESTER II		
A S L 7	Voice to Sign Interpreting II	4
A S L 11	Sign to Voice Interpreting II	4
A S L 12	Specialized Interpreting	3
*Health 10	Health Education	2
*Phys Ed	Physical Education Activity	1

Electives: A S L 15 (Linguistics for Interpreters), A S L 25 (A S L Lab).

**Meets Graduation General Education Requirement.*

Architecture - Architecture Technology

Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

This program is designed to prepare students interested in obtaining employment as architectural technicians or transferring to schools of Architecture. The program has been developed through an advisory committee of architects, technicians, contractors, and Pierce College faculty. For General Education Subject Requirements, follow Plan B. If an eventual 4-year degree is considered, be aware of the requirements different from Plan B.

FIRST SEMESTER		UNITS
Arch 1	Introduction to Architecture	1
Arch 5	Architectural Drawing I	3
Arch 9	Elements of Architecture	3
Arch 20	Methods of Construction	2
Arch 41	Architectural Model Building	2
[2,4] Math 145	Technical Mathematics I	3
SECOND SEMESTER		
Arch 6	Architectural Drawing II	3
Arch 21	Materials of Construction	3
Arch 33	Basic Architectural Design I	3
[2,3,5] Math 146	Technical Mathematics II	3
General Education		3
THIRD SEMESTER		
Arch 7	Architectural Drawing III	3
Arch 22	Equipment of Buildings	3
Arch 34	Basic Architectural Design II	3
[5]English 28	Intermediate Reading and Composition	
or		
English 101	College Reading and Composition I	3
[1]Architectural Elective		3
FOURTH SEMESTER		
Arch 8	Architectural Drawing IV	3
Arch 10	Freehand Drawing I	2
Arch 12	Architectural Rendering	2
Art Elective		3
[6]Health 10	Health Education	2
[6]Phys Ed	Physical Education Activity	1
General Education		6

[1]Suggested Electives: Arch 15, 18, 23, 37 (CAD), 52, and Coop Ed.
[2]Math 116 or 115 or Math 125 may be substituted.
[3]Math 240 may be substituted.
[4]Meets General Education Requirements, Plan B, Part D2.
[5]Meets General Education Requirements, Plan B, Part D1.
[6]Meets General Education Requirements, Plan B, Part E.

Note: CA State Polytechnic Universities, San Luis Obispo and Pomona offer degrees in Architecture and Planning. See a counselor or department advisor for further information.

Certificate Program

For students who wish to complete two classes (minimum) in one year to prepare for employment. A minimum of 37 units is required. Cannot be completed in one academic year.

		UNITS
Arch 1	Introduction to Architecture	1
Arch 5	Architectural Drawing I	3
Arch 6	Architectural Drawing II	3
Arch 7	Architectural Drawing III	3
Arch 8	Architectural Drawing IV	3
Arch 10	Freehand Drawing I	2
Arch 12	Architectural Rendering	2
Arch 20	Methods of Construction	2
Arch 21	Materials of Construction	3
Arch 22	Equipment of Buildings	3
Arch 33	Basic Architectural Design I	3
Arch 34	Basic Architectural Design II	3
Arch 41	Architectural Model Building	2
Math 146	Technical Mathematics II	3

Architecture - Construction Technology

Associate in Science Degree

Associate Degree programs DO NOT constitute the first two years of a program leading to a bachelor's degree.

This program is designed to prepare a person for employment in the field of construction inspection and management. Courses in building inspection and building construction for both government and private industry offer many attractive potentials. For Graduation General Education Subject Requirements, follow Plan B.

		UNITS
FIRST SEMESTER		
Arch 1	Introduction to Architecture	1
Arch 5	Architectural Drawing I	3
Arch 20	Methods of Construction	2
[4]English 28	Intermediate Reading and Composition	3
[2,3]Math 145	Technical Mathematics I	3
[1]Architectural Elective		3
Elective		2
SECOND SEMESTER		
Arch 6	Architectural Drawing II	3
Arch 18	Strength of Architectural Materials I	3
Arch 21	Materials of Construction	3
[2,3]Math 146	Technical Mathematics II	3
General Education		3
THIRD SEMESTER		
Arch 9	Elements of Architecture	3
Arch 52	Concrete Construction Design and Practice	3
[1]Architectural Elective		6
General Education		3
FOURTH SEMESTER		
Arch 22	Equipment of Buildings	3
Arch 23	Construction Estimating	3
Econ 2	Principles of Economics II	3
[6]Health 10	Health Education	2
[6]Phys Ed	Physical Education Activity	1
General Education		3

[1]Suggested Elective: Coop Ed: Electrical construction and Electricity classes. Arch 57 (CAD).
[2]Math 116 or 115 or Math 325 may be substituted.
[3]Math 240 may be substituted.
[4]Meets General Education Requirements, Plan B, Part D1.
[5]Meets General Education Requirements, Plan B, Part D2.
[6]Meets General Education Requirements, Plan B, Part E.

Certificate Program

Students who wish to complete classes in one year to prepare for employment. A minimum of 32 units is required. Cannot be completed in one academic year.

		UNITS
Arch 1	Introduction to Architecture	1
Arch 5	Architectural Drawing I	3
Arch 6	Architectural Drawing II	3
Arch 9	Elements of Architecture	3
Arch 18	Strength of Architectural Materials I	3
Arch 20	Methods of Construction	2
Arch 21	Materials of Construction	3
Arch 22	Equipment of Buildings	3
Arch 23	Construction Estimating	3
Arch 52	Concrete Construction Design and Practice	3
Econ 2	Principles of Economics II	3
Math 146	Technical Mathematics II	3

Art - Fine Arts

Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

Students wishing to pursue an Associate in Arts Degree under Graduation Plan B must complete a minimum of 18 units in General Education as required in the College. In addition they must complete a core program of Basic Art Courses, and a program in depth chosen from one of the Art Concentrations listed below. An Associate in Arts Degree in Fine Arts would, therefore, typically include the following:

General Education	18units
Required Basic Art Courses	18 units
Art Course Concentration	18-21 units
Elective Courses	6-7 units

REQUIRED BASIC ART COURSES:	
Art 101, 102, 201, 202, 501, 502	18 Units
CERAMIC DESIGN CONCENTRATION	
Art 700, 708, 709, 710, 711	18 Units
METAL and JEWELRY DESIGN CONCENTRATION	
Art 721, 722, 723, 724, 700, 708	18 Units
SCULPTURE CONCENTRATION	
Art 700, 701, 702, 703, 204	18 Units
DRAWING CONCENTRATION	
Art 204, 205, 206, 209, 300, 400	18 Units
PAINTING CONCENTRATION	
Art 300, 304, 204, 209, 305, 205, 400	21 Units
PRINTMAKING CONCENTRATION	
Art 103, 400, 401, 403, 405, 407	18 Units

Students wishing to survey a variety of traditional art media may elect the following course of study:

SURVEY OF ART COURSES	
Art 204, 300, 400, 700, 721, 708	18 Units

Art - Graphic Design

Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

This program is planned for students who expect to make advertising art or graphic design their vocation. Satisfactory completion of the course of study below leads to the Associate in Arts Degree.

		UNITS
FIRST SEMESTER		
Art 201	Drawing I	3
Art 501	Beginning Two-Dimensional Design	3
Art 613	Graphic Design	3
Art 614	Graphic Communications I	4
[3]General Education		3
SECOND SEMESTER		
[1]Art 103	Art Appreciation I	3
Art 615	Graphic Communications II	4
Art 620	Illustration I	3
[3]General Education		6
THIRD SEMESTER		
Art 616	Graphic Communications III	4
Art 621	Illustration II	3
[2]Art Elective	3	
[3]General Education		6

FOURTH SEMESTER		
Art 617	Graphic Communications IV	4
Art 622	Illustration for the Graphic Artist	3
Art Elective		3
[3]General Education		3

[1]Meets humanities requirement for general education.
[2]Six units of art electives chosen from Art 204, 300, 502, 600, 628.
[3]See Graduation General Education Requirements.

Certificate Program

This program provides specialized training in Graphic Communications for employment. A minimum of 37 units is required.

		UNITS
Art 201	Drawing I	3
Art 501	2D Design	3
Art 502	3D Design	3
Art 613	Graphic Design	3
Art 614	Graphic Communications I	4
Art 615	Graphic Communications II	4
Art 616	Graphic Communications III	4
Art 617	Graphic Communications IV	4
Art 620	Illustration I	3
Art 621	Illustration II	3
Art 622	Illustration for the Graphic Designer	3

Business Administration - Accounting

Associate in Arts Degree

This program is designed to prepare a student for entry into the business community as an accounting clerk or a middle-management trainee. It will provide the educational background for preparing the student to fulfill the needs of business in maintaining records, financial controls, and preparing informational reports for management decision-making processes and for governmental requirements.

Typical Positions: bookkeeper, accounting clerk, assistant auditor, financial analyst, proprietor.

REQUIRED AREA SUBJECTS

		UNITS
[2]Acctg 1	Introductory Accounting Usr	5
Acctg 21	Bookkeeping and Accounting I and	3
Acctg 22	Bookkeeping Accounting II	3
Acctg 2	Introductory Accounting II	5
Acctg 15	Tax Accounting I	3
Acctg 17	Payroll Accounting	2
Bus 1	Introduction to Business	3
Bus 5	Business Law I	3
Finance 1	Principles of Finance	3
Mgmt 13	Small Business Management I	3
[1]Off Adm 32	Business Communications	3
Off Adm 78	Microcomputer Accounting Applications for the Electronic Office	3

ELECTIVE AREA SUBJECTS (15 UNITS MINIMUM)

		UNITS
Acctg 20	Managerial Accounting	3
*Acctg 185	VITA - Directed Study	1
*Acctg 285	VITA - Directed Study	2
Finance 8	Personal Finance	3
Int Bus 1	International Trade	3
Mgmt 2	Organization and Management Theory	3
Mgmt 33	Personnel Management	3
Market 1	Principles of Selling	3
Market 21	Principles of Marketing	3
Supv 1	Elements of Supervision	3
Coop Ed	Work Experience	1-4

ADDITIONAL GENERAL EDUCATION REQUIREMENTS (12 UNITS)
SEE GRADUATION PLAN B

	UNITS
Natural Sciences	3
Humanities	3
Health and Physical Education	3
Social and Behavioral Sciences	3

Volunteer Income Tax Assistance Courses, TBA.
[1] Off Adm 32 meets Language and Rationality (D1) General Education requirement.
[2]Acctg 1, 21 meets Language and Rationality (D2) General Education requirement.

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

Certificate Program In Accounting

This program is designed to prepare a student for entry into the business community as an accounting trainee/clerk or for the student who wishes to become a proprietor of a small business. The program provides the minimum educational background for preparing the student in understanding the needs of businesses in maintaining records and financial controls, and preparing financial reports for decision-making.

Typical positions include: accounting clerk/trainee, bookkeeper, auditor/trainee, financial analyst/trainee, small business proprietor.

REQUIRED AREA SUBJECTS

		UNITS
Acctg 1	Introductory Accounting I	5
Acctg 15	Tax Accounting I	3
Acctg 17	Payroll Accounting	2
Bus 1	Introduction to Business	3
Bus 5	Business Law I	3
Off Adm 32	Business Communications	3
Off Adm 78	Microcomputer Acctg Applications for the Electronic Office	3

ELECTIVE AREA SUBJECTS (9 UNITS MINIMUM)

		UNITS
Acctg 20	Managerial Accounting	3
Finance 1	Principles of Finance	3
Market 21	Principles of Marketing	3
Mgmt 13	Small Business Management I	3
Mgmt 31	Human Relations for Employees	3
Off Adm 82	Microcomputer Software Survey in the Office	3
Off Adm 85	Microcomputer Office Applications: Spreadsheet	3

[1]Includes a word processing, spreadsheet and data base program.

Business Administration - Agriculture

Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

This program is designed to offer students the opportunity to earn a degree in Agriculture-Business.

REQUIRED AREA SUBJECTS FROM THE BUSINESS DEPARTMENT:

	UNITS
Accounting 1	5
Business 1	3
Marketing 1	3
Management 13	3
Marketing 21	3
Office Administration	3
Finance 8	3

REQUIRED AREA SUBJECTS FROM THE AGRICULTURE DEPARTMENT

		UNITS
Any 23 units from the Agriculture Department.		23

ELECTIVES

	UNITS
Any courses approved by either department chairs of Agriculture or Business.	6

Business Administration - General Business

Associate in Arts Degree

This program is designed to provide a broad formal business education for those students thinking of starting their own business. It provides great latitude in course selection to allow students to tailor the program to their goals.

REQUIRED AREA SUBJECTS

		UNITS
[2]Acctg 1	Introductory Accounting I	5
	or	
Acct 21	Bookkeeping and Accounting I	3
	and	
Bus 1	Introduction to Business	3
Bus 5	Business Law I	3
Mgmt 2	Organization and Management Theory	3
Mgmt 13	Small Business Management I	3
Market 1	Principles of Selling	3
Market 11	Fundamentals of Advertising	3
Market 21	Principles of Marketing	3
[1]Off Adm 32	Business Communications	3
Off Adm 82	Microcomputer Software Survey in the Office	3

ELECTIVE AREA SUBJECTS (15 UNITS MINIMUM)

		UNITS
Acctg 2	Introductory Accounting II	5
Finance 1	Principles of Finance	3
	or	
Finance 8	Personal Finance	3
Int Bus 1	International Trade	3
Mgmt 6	Public Relations	3
Mgmt 31	Human Relations for Employees	3
Mgmt 33	Personnel Management	3
Market 31	Retail Merchandising	3
Real Es 1	Real Estate Principles	3
Supv 1	Elements of Supervision	3

ADDITIONAL GENERAL EDUCATION REQUIREMENTS (12 UNITS) SEE GRADUATION PLAN B.

	UNITS
Natural Sciences	3
Humanities	3
Health and Physical Education	3
Social and Behavioral Sciences	3

[1]Off Adm 32 meets Language and Rationality (D1) General Education requirement.
[2]Accg 1, 21, Bus 38 meets Language and Rationality (D2) General Education Requirement.

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

Business Administration - Management And Supervision

Associate in Arts Degree

This program is designed to meet the needs of 1) employed persons desiring to prepare for supervisory positions, and 2) supervisors and other management personnel who wish to gain knowledge which will enable them either to perform their duties more effectively or to advance to more responsible positions. This course of study was developed with the assistance of the Business Advisory Committee and recommended by the Bureau of Industrial Education of the California State Department of Education. Those courses applied towards the Supervisory Managment Certificate are also applicable for this Degree.

Typical Positions: Various supervisorial and managerial positions in the industrial and commercial community.

REQUIRED AREA SUBJECTS

		UNITS
[2]Acctg 1	Introductory Accounting I	5
Bus 1	Introduction to Business	3
Bus 5	Business Law I	3
Econ 2	Principles of Economics II	3
Mgmt 2	Organization and Management Theory	3
Mgmt 31	Human Relations for Employees	3
Mgmt 33	Personnel Management	3
Market 21	Principles of Marketing	3
[1]Off Adm 32	Business Communications	3
Off Adm 82	Microcomputer Software Survey in the Office	3

ELECTIVE AREA SUBJECTS (15 UNITS MINIMUM)

		UNITS
Acctg 2	Introductory Accounting II	5
Finance 1	Principles of Finance	3
	or	
Finance 8	Personal Finance	3
Mgmt 6	Public Relations	3
Mgmt 13	Small Business Management I	3
Market 1	Principles of Selling	3
Supv 1	Elements of Supervision	3
Int Bus 1	International Trade	3
Int Bus 6	International Marketing	3
Int Bus 11	International Management	3

ADDITIONAL GENERAL EDUCATION REQUIREMENTS (12 UNITS) SEE GRADUATION PLAN B.

	UNITS
Natural Sciences	3
Humanities	3
Health and Physical Education	3
Social and Behavioral Sciences	3

[1]Off Adm 32 meets Language and Rationality (D1) General Education requirement.
[2]Accg 1, 21, meets Language and Rationality (D2) General Education Requirement.

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

Certificate Program in Management and Supervision

This Certificate Program was developed in cooperation with the Business Administration Advisory Committee. It is designed to give specialized training for supervisory management personnel. All of these courses may be used to apply toward the fulfillment of the requirements for an Associate in Arts Degree in Supervisory Management.

REQUIRED AREA SUBJECTS

		UNITS
Mgmt 2	Organization and Management Theory	3
Mgmt 31	Human Relations for Employees	3
Mgmt 33	Personnel Management	3
Market 21	Principles of Marketing	3
Off Adm 82	Microcomputer Software Survey in the Office	3
Supv 1	Elements of Supervision	3

ELECTIVE AREA SUBJECTS (12 UNITS MINIMUM)

		UNITS
Bus 1	Introduction to Business	3
Bus 5	Business Law I	3
Finance 1	Principles of Finance	3
	or	
Finance 8	Personal Finance	3
Mgmt 6	Public Relations	3
Mgmt 13	Small Business Management I	3
Market 1	Principles of Selling	3

Business Administration - Marketing

Associate in Arts Degree

This program was developed to prepare students to enter the broad area of marketing for the business enterprise. Upon successful completion of this program, the student has a background in the principles and practices involved in the distribution of products and services from producers through middlemen to the ultimate consumer. Career opportunities include sales, advertising, public relations, purchasing, and management.

Typical Positions: Retail, wholesale and industrial sales; buyer; merchandising supervisor; proprietor.

REQUIRED AREA SUBJECTS

		UNITS
[2]Acctg 1	Introductory Accounting I	5
Bus 1	Introduction to Business	3
Bus 5	Business Law I	3
Mgmt 6	Public Relations	3
Mgmt 13	Small Business Management I	3
Market 1	Principles of Selling	3
Market 11	Fundamentals of Advertising	3
Market 21	Principles of Marketing	3
[1]Off Adm 32	Business Communications	3
Off Adm 82	Microcomputer Software Survey in the Office	3

ELECTIVE AREA SUBJECTS (15 UNITS MINIMUM)

		UNITS
Int Bus 1	International Trade	3
Mgmt 2	Organization and Management Theory	3
Mgmt 31	Human Relations for Employees	3
Market 31	Retail Merchandising	3
Supv 1	Elements of Supervision	3
Coop Ed	Work Experience	1-4
Int Bus 6	International Marketing	3

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

ADDITIONAL GENERAL EDUCATION REQUIREMENTS (12 UNITS)

	UNITS
Natural Sciences	3
Humanities	3
Health and Physical Education	3
Social and Behavioral Sciences	3

[1]Off Adm 32 meets Language and Rationality (D1) General Education requirement.
[2]Acctg 1, 21, meets Language and Rationality (D2) General Education Requirement.

Certificate Programs In Marketing

This Certificate Program was developed in cooperation with the Marketing Advisory Committee. It is designed to provide an in depth exposure, to the fields of Marketing leading to employment. These courses may be used to apply toward the fulfillment of the requirements for an Associate in Arts Degree in Marketing Management.

REQUIRED AREA SUBJECTS

		UNITS
Bus 1	Introduction to Business	3
Market 21	Principles of Marketing	3
Off Adm 32	Business Communications	3
Market 1	Principles of Selling	3
Market 11	Fundamentals of Advertising	3
Off Adm 82	Microcomputer Software Survey in the Office	3

ELECTIVES/GENERAL MARKETING CERTIFICATE (12 UNITS MINIMUM)

		UNITS
Int Bus 1	International Trade	3
Mgmt 2	Organization and Management Theory	3
Mgmt 6	Public Relations	3
Mgmt 13	Small Business Management I	3
Mgmt 31	Human Relations for Employees	3
*Market 31	Retail Merchandising	3
Coop Ed	Work Experience	1-4
Int Bus 6	International Marketing	3

Not offered as a day class.

Business Administration - Real Estate

Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

The following program was prepared in cooperation with the Pierce College Real Estate Advisory Committee in order to provide a course of study for persons who plan to go into the various aspects of the Real Estate Industry. Those courses applied towards the Real Estate Certificate are also applicable for this Degree.

REQUIRED AREA SUBJECTS

		UNITS
[2]Acctg 1	Introductory Accounting I	5
Bus 1	Introduction to Business	3
Bus 5	Business Law I	3
Market 1	Principle of Selling	3
Real Es 1	Real Estate Principles	3
Real Es 3	Real Estate Practices	3
Real Es 5	Legal Aspects of Real Estate I	3
Real Es 7	Real Estate Finance I	3
Real Es 9	Real Estate Appraisal I	3
Escrow 1	Fundamentals of Escrow	3
Off Adm 32	Business Communications	3
Off Adm 82	Microcomputer Software Survey in the Office	3

AREA ELECTIVE SUBJECTS (14 UNITS MINIMUM)

		UNITS
Acctg 2	Introductory Accounting II	5
Bus 6	Business Law II	3
Finance 1	Principles of Finance	3
	or	
Finance 8	Personal Finance	3

Market 21	Principles of Marketing	3
Mgmt 2	Organization and Management Theory	3
Mgmt 6	Public Relations	3
Supv 1	Elements of Supervision	3

ADDITIONAL GENERAL EDUCATION REQUIREMENTS (12 UNITS)

	UNITS
Health and Physical Education	3
Humanities	3
Natural Sciences	3
Social and Behavioral Sciences	3

Students must pass a competency test in their understanding of American Institutions and U.S. History or complete an appropriate course in American Institutions or U.S. History. See Plan B.

[1]Off Adm 32 meets Language and Rationality (D1) General Education requirement.
[2]Accg 1 meets Language and Rationality (D2) General Education requirement.

SALESPERSON'S LICENSE

EDUCATIONAL REQUIREMENTS:

Real Estate Principles (Real Es 1)

Within 18 months after issuance of license, 2 additional 3-unit courses from the following:

		UNITS
Real Es 3	Real Estate Practices	3
Real Es 5	Legal Aspects of Real Estate I	3
Real Es 7	Real Estate Finance I	3
Real Es 9	Real Estate Appraisal I	3
Real Es 14	Property Management	3
Real Es 21	Real Estate Economics	3
Acctg 1	Introductory Accounting I	5
Bus 5	Business Law I	3

BROKER'S LICENSE

EDUCATIONAL REQUIREMENTS:		UNITS
Real Es 3	Real Estate Practices	3
Real Es 5	Legal Aspects of Real Estate I	3
Real Es 7	Real Estate Finance I	3
Real Es 9	Real Estate Appraisal I	3
Real Es 21	Real Estate Economics	3
	or	
Acctg 1	Introductory Accounting I	5

AND 3 courses from the following group:

Bus 5	Business Law I	3
Real Es 1	Real Estate Principles	3
Real Es 6	Legal Aspects of Real Estate II	3
Real Es 8	Real Estate Finance II	3
Real Es 10	Real Estate Appraisal II	3

Certificate Program

This program was developed with the cooperation of the Pierce College Real Estate Advisory Committee. A Certificate of Completion will be awarded upon the satisfactory completion of 24 units as indicated below. This program gives a one-year, in-depth exposure into the field of Real Estate. These courses may also be applied towards the Associate in Arts Degree in Real Estate.

REQUIRED AREA SUBJECTS		UNITS
Real Es 1	Real Estate Principles	3
Real Es 3	Real Estate Practices	3
Real Es 5	Legal Aspects of Real Estate I	3
Real Es 7	Real Estate Finance I	3
Real Es 9	Real Estate Appraisal I	3

ELECTIVE AREA SUBJECTS (9 UNITS MINIMUM)		UNITS
Acctg 1	Introductory Accounting I	5
	or	
Acctg 21	Bookkeeping and Accounting I	3
Bus 5	Business Law I	3
Bus 6	Business Law II	3
Finance 1	Principles of Finance	3
Finance 2	Investments	3
Market 1	Principles of Selling	3
Real Es 6	Legal Aspects of Real Estate II	3
Real Es 10	Real Estate Appraisal II	3

Child Development

The following Child Development Classes are designed to prepare students in obtaining employment in the field of Early Childhood Education. These classes meet Title 22 regulations and are applicable toward the new State Child Development Permit.

CORE CLASSES

		UNITS
CD1	Child Growth and Development	3
CD2	Early Childhood Principles & Programs	3
CD3	Creative Experiences for Children I	3
CD11	Family, School & Community Relations	3

Computer Science

Associate Degree Programs

The computer science department offers courses and curricula in several areas of emphasis in the computer field. The student may elect to complete the course work required to transfer to a four-year institution or may complete an occupationally oriented two-year curriculum. Students interested in completing the first two years of a bachelor's degree program should consult a member of the computer science staff or request copies of the transfer curricula from the department chairperson's office.

The department offers three areas of specialization at the associate degree level. They are Programming for Business, Programming for Computer Science, and Computer and Network Technology. Associate degree curricula require the completion of a specific pattern of course work. Any substitutions or variations must have prior approval of the department.

These occupational programs MAY NOT constitute the first two years of a Bachelor's degree transfer program in these fields. Consult a counselor for transfer requirements.

PROGRAMMING FOR BUSINESS

Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

Curriculum prepares student in 2 years to enter job market as a business programmer.

NOTE: Math 115 or 1 year of high school algebra with a grade of "C" or better is a required prerequisite to becoming a computer science major. Verification required upon request.

CORE COURSES

FIRST SEMESTER		UNITS
Co Sci 501	Introduction to Computers & Their Uses	3
[2]Co Sci 506	Introduction to Programming	3
[2]Co Sci 507	Programming Logic Language & Rationality	3
	[1]General Education (English composition)	3
	[1]General Education	3
SECOND SEMESTER		
Co Sci 530	Microcomputer Application Software	3
Co Sci 572	Computer Systems and Networks I	3
Acctg 1	Introductory Accounting I	5
	Additional Elective	3
	[1]General Education	3

THIRD SEMESTER		
CoSci 508	Visual BASIC	3
Co Sci 515	Beginning COBOL Programming	3
Co Sci 533	Microcomputer Databases	3
	Technical Elective	3
	1General Education	3
FOURTH SEMESTER		
Co Sci 535	Job Control Language and File Systems	3
Co Sci 545	Advanced COBOL Programming	3
	Additional Elective	3
	Technical Elective	3
	1General Education	3

[1]See Catalog, Graduation Plan B. See Pierce counselor for advisement.
[2]Satisfies General Education requirement, Plan B-D2

Technical Electives: *Either Co Sci 539 and 540 or Computer Science 587 and (Computer Science 576 or Computer Science 579)*
Additional Electives: *It is recommended that Accs 2, or Bus 1, or Mgmt 13, or OA 32, or any Computer Science classes be taken as Additional Electives for this program.*

Certificate Programs

Prerequisites: *Math 115 or one year of high school algebra with a grade of "C" or better.*
A minimum of 12 units must be taken in the Computer Science Department at Pierce College within the last 5 years.

CERTIFICATE IN MICROCOMPUTERS AND SMALL BUSINESS SYSTEMS

		UNITS
Co Sci 501	Introduction to Computers	3
[1]Co Sci 506	Introduction to Programming	3
	or	
Co Sci 508	Visual BASIC	
[1]Co Sci 507	Programming Logic	3
Co Sci 530	Microcomputer Application Software	3
Co Sci 572	Computer Systems & Networks I	3
[1]Co Sci 533	Microcomputer Databases	3
Co Sci 911	Cooperative Education	1
[2]Acctg 1 (or 21 & 22)		
	Introductory Accounting	5

CERTIFICATE IN PROGRAMMING FOR BUSINESS

		UNITS
Co Sci 501	Introduction to Computers	3
[1]Co Sci 506	Introduction to Programming	3
	or	
Co Sci 508	Visual BASIC	
[1]Co Sci 507	Programming Logic	3
Co Sci 530	Microcomputer Application Software	3
[1]Co Sci 515	Beginning COBOL Programming	3
[1]Co Sci 533	Microcomputer Databases	3
[1]Co Sci 535	Job Control Languages and File Systems	3
[1]Co Sci 545	Advanced COBOL Programming	3
[2]Acctg 1 (or 21 & 22)		
	Introductory Accounting	5

[1]See Catalog description for prerequisites.
[2]Acctg 21 and 22 may be substituted.

PROGRAMMING FOR COMPUTER SCIENCE

Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

Curriculum prepares student for programming in a technical environment or transferring to a 4-year institution. See a Pierce counselor in the first semester for transfer education advisement.

The student must also contact the transfer institution to determine entrance level.

NOTE: Math 115 or one year of high school algebra with a grade of "C" or better is a prerequisite for this program. Verification is required upon request. However, Math 262 (Calculus II) is a graduation requirement.

FIRST SEMESTER		UNITS
Co Sci 501	Introduction to Computers & Their Uses	3
[1]Co Sci 506	Introduction to Programming	3
[1]Co Sci 507	Programming Logic	3
	Language & Rationality,	
	1General Education (English Composition)	3
	1General Education	3
SECOND SEMESTER		
Co Sci 539	Programming in C	3
Math 261	Calculus I	5
Phil 9	Symbolic Logic	3
	1General Education	3
THIRD SEMESTER		
Co Sci 516	Beginning Mainframe Assembly Language and Architecture	3
Co Sci 536	Introduction to Data Structures	3
Math 262	Calculus II	5
	Technical Elective	3
	1General Education	3
FOURTH SEMESTER		
Co Sci 532	Introduction to Databases	3
Co Sci 546	Advanced Mainframe Assembly Language and Architecture	3
	Technical Electives	6
	1General Education	3

[1]See Catalog, Graduation Plan B. See Pierce counselor for advisement.
[2]Satisfies General Education Requirement, Plan B-D2.

Recommendations: Proficiency in typing or keyboarding.
Technical Electives: Co Sci 508, 530, 534, 540, 572, 578, 587, Math 263, 270.

Certificate Program

All of these courses may be used to apply toward fulfillment of the requirements for an Associate degree in Programming for Computer Science.

Prerequisites: *Math 115 or one year of high school algebra with a grade of "C" or better. Verification required upon request.*

Completion of the program listed below with a minimum of 15 computer science units taken at Pierce College within the last 5 years.

CERTIFICATE IN PROGRAMMING FOR COMPUTER SCIENCE

		UNITS
[1]Co Sci 507	Programming Logic	3
[1]Co Sci 516	Beginning Mainframe Architecture	3
[1]Co Sci 532	Introduction to Data Bases	3
[1]Co Sci 536	Introduction to Data Structures	3
[1]CoSci 539	Programming in C	3
[1]Co Sci 546	Advanced Mainframe Architecture	3
Phil 9	Symbolic Logic	3

[1]See Catalog course description for prerequisites.

COMPUTER TECHNOLOGY

Associate in Science Degree Program

The intent of this program is to produce graduates with the balanced knowledge of hardware and software required to install, operate, maintain and trouble-shoot microcomputers, minicomputers and computer networks in a variety of work environments.

The microcomputer service technology certificate graduates will be prepared for entry level jobs in microcomputer dealerships and repair shops, as well as internal maintenance groups within large corporations, or as the hardware specialist within a programming team.

Associate in Science graduates will be prepared to install, operate, maintain and trouble-shoot systems and networks for the service divisions of large computer manufactures and computer applications organizations.

NOTE: One year of high school algebra or Math 115 with a grade of "C" or better is a prerequisite for this program. Verification is required upon request.

FIRST SEMESTER		UNITS
Co Sci 530	Microcomputer Application Software	3
[1,3] Co Sci 570	Computer Fundamentals	3
Co Sci 572	Computer Systems and Networks I	3
[1,3] Co Sci 575	Programming Concepts for Computer Technicians	4
	General Education	3
SECOND SEMESTER		
[1]Co Sci 578	Microcomputer Architecture	3
[1]Co Sci 581	Computer Systems and Networks Repair	4
[1]CoSci 587	Introduction to Local Area Networks	3
	General Education	6
THIRD SEMESTER		
[1]Co Sci 576	Local Area Network Management	3
[1]Co Sci 579	Wide Area Network Management	3
[1]Co Sci 589	Introduction to Data Communications	3
	General Education	3
	Technical Elective	3
FOURTH SEMESTER		
[1]Co Sci 534	Operating Systems	3
[1]Co Sci 586	Computer Network Service and Support	4
	General Education	3
	Technical Elective	3

[1]See Catalog for prerequisites. Program does not necessarily constitute first two years of a bachelor's program.
[2]Satisfies General Education Requirement, Plan B-D2.
[3]Satisfies General Education Requirement, Plan B-A.

Technical Electives: *Choose six (6) units in Computer Science classes chosen from the following list: CoSci 508, 516, 533, 539, 546*
OR
Choose six (6) units in Electronics classes chosen from the following list: Elect 4A, 4B, 6A, 6B, 8A, 8B, 26, 27, 44, 60, 61.

Microcomputer Service Technology Certificate Program

This program was developed in cooperation with the Computer Technology advisory committee for students who wish to take a technical program to prepare themselves for employment in the computer technology field.

Prerequisite: Math 115 or one year of high school algebra with a grade of "C" or better. Verification required upon request.

		UNITS
Co Sci 530	Microcomputer Application Software	3
[1]Co Sci 570	Computer Fundamentals	3
Co Sci 572	Computer Systems and Networks I	3
[1]Co Sci 575	Programming Concepts for Computer Technicians	4
[1]Co Sci 578	Microcomputer Architecture	3
[1]Co Sci 581	Computer Systems and Networks Repair	4
[1]Co Sci 587	Introduction to Local Area Networks	3

Network Technology Certificate

This program was developed in cooperation with the Computer Technology advisory committee for students who wish to take a technical program to prepare themselves for employment in the computer network technology field.

		UNITS
[1]Co Sci 576	Local Area Network Management	3
[1]Co Sci 579	Wide Area Network Management	3
[1]Co Sci 589	Introduction to Data Communications	3
[1]Co Sci 534	Operating Systems	3
[1]Co Sci 586	Computer Network Service and Support	4

[1]See Catalog description for prerequisites.

Electronics

Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

Representatives from the electronics industry and Pierce College faculty have collaborated to design this course of study. Completion of this program prepares the student for employment as an electronics technician.

TECHNICAL REQUIREMENTS		UNITS
FIRST SEMESTER		
[4]Electm 4A	Fundamentals of Electronics IA	3
Electm 4B	Fundamentals of Electronics IB	1
Electm 28	Electronic and Electro-Mechanical Drafting I	2
Electm 81	Projects Laboratory	1
	[1]General Education	4
SECOND SEMESTER		
Electm 6A	Fundamentals of Electronics IIA	3
Electm 6B	Fundamentals of Electronics IIB	1
Electm 8A	Electron Devices A	3
Electm 8B	Electron Devices B	1
Electm 81	Projects Laboratory	1
	[1]General Education	9
THIRD SEMESTER		
Electm 26	Linear Circuits	3
Electm 63	Circuit Analysis Laboratory	1
Electm 44	Communications Electronics	3
Electm 45	Communications Electronics Laboratory	1
Electm 72A	Digital Circuits IA	3
Electm 72B	Digital Circuits IB	1
Electm 81	Projects Laboratory	1
	[1]General Education	
FOURTH SEMESTER		
Electm 48	Integrated Circuits	4
Electm 74A	Digital Circuits IIA	3
Electm 74B	Digital Circuits IIB	1
Electm 60	Microwave Fundamentals	3
Electm 61	Microwave Fundamentals Laboratory	1
	[1]General Education	3

For additional electives, see Electronics Department Chairperson. See Catalog descriptions for prerequisites and corequisites.

[1]See General Education Requirements, Plan B.
[2]Meets General Education Requirements, Plan B, Part A.

Certificate Programs

In collaboration with industry, the College staff has developed the program as shown below which leads toward a Certificate in Electronics with a specialization option in Digital, Communications, or Analog electronics. The certificate program has been designed to provide students with marketable skills at the completion of 20 units. If they wish, students may continue their education and obtain an Associate in Science Degree. To complete the Certificate Program, the core courses and one specialization option must be completed.

CERTIFICATE PROGRAM CORE REQUIREMENTS:		UNITS
Electm 4A	Fundamentals of Electronics IA	3
Electm 4B	Fundamentals of Electronics IB	1
Electm 6A	Fundamentals of Electronics IIA	3
Electm 6B	Fundamentals of Electronics IIB	1
Electm 8A	Electron Devices A	3
Electm 8B	Electron Devices B	1

Certificate Specialization Options:

DIGITAL OPTION:		UNITS
Electm 72A	Digital Circuits IA	3
Electm 72B	Digital Circuits IB	1
Electm 74A	Digital Circuits IIA	3
Electm 74B	Digital Circuits IIB	1

COMMUNICATIONS OPTION:		UNITS
Electm 44	Communications Electronics	3
Electm 45	Communications Electronics Laboratory	1
Electm 60	Microwave Fundamentals	3
Electm 61	Microwave Fundamentals Laboratory	1

ANALOG OPTION:		UNITS
Electm 26	Linear Circuits	3
Electm 63	Circuit Analysis Laboratory	1
Electm 48	Integrated Circuits	4

French

The main objective of the French program is to enable the students to acquire competence in the ability to understand, speak, read, and write French, and to develop an understanding and appreciation of the multicultural French-speaking world.

Students are placed in French courses according to their years of previous study. In general one year of high-school French is equivalent to one semester at Pierce. Native speakers are encouraged to enroll in French 4, 5, or 6.

All French courses are taught primarily in the language. However, the instructor may choose to clarify certain concepts in English when necessary. By the end of the first year, students are able to use the basic structure of the language and the practical vocabulary learned to converse on everyday topics, as well as to read and write at an elementary level.

French 3 combines with French 8 (Conversational French) to increase oral proficiency and also continues to raise the students' ability to read and write.

In French 4, 5, and 6, students gradually acquire more ease in expressing themselves orally and in writing. Combining a review of grammar with discussions and analysis of literary texts of increasing difficulty, these courses give students a broad overview of France and French-speaking countries and prepare them to live abroad.

Students are encouraged to participate in the International Education summer or semester program of study in Paris offered by the Los Angeles Community College District.

Career Opportunities

French is adapted to careers in international business or trade, telecommunications, fashion, the gourmet food industry, medical research, international law, diplomacy and the foreign service, aerospace technology, as well as in the arts and the humanities.

Associate in Arts Degree

REQUIRED COURSES

		UNITS
Three courses chosen from the following:		
French 1, 2, 3, 4, 5, or 6	Elementary, Intermediate, Advanced French And	15
French 101	French Language Laboratory (2 semesters)	2
French 8	Conversational French Or	2
French 81	Practical French for Business	3
	Total	19 or 20

RECOMMENDED ELECTIVES:

(These courses can also be applied towards General Education requirements under Graduation Plan A): Linguistics 1; English 203, 204; Anthropology 102; History 50; Art 102, 103; Humanities 12, 13.

Also recommended: International Business 1.

Industrial Technology - Automotive Service Technology

Associate in Science Degree

Faculty Advisor: Bart Trinchero

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

FIRST SEMESTER		UNITS
AST 1	Automotive Engines	5
AST 2	Suspension, Brakes, and Power Systems	5
[2]Math 145	Technical Mathematics I	3
Health 10	Health Education	2
SECOND SEMESTER		
AST 3	Engine Diagnosis and Tune-Up	5
AST 4	Starting and Charging Systems/ Automotive Electrical Circuits	5
AST 32	Automotive Service Technology Projects Laboratory-Chassis and Suspension Systems	1
Phys Ed	Physical Education Activity	1
[1]Phys Sc 1	Physical Science I	3
THIRD SEMESTER		
AST 5	Standard Transmissions, Clutches, Drive Lines, and Differentials	3
AST 6	Automatic Transmissions	5
AST 7	Air Conditioning	3
AST 34	Automotive Service Technology Projects Laboratory - Electrical Circuits	2
English 28	Intermediate Reading and Composition	3
FOURTH SEMESTER		
AST 20	Automotive Electronic Computer Control Systems	3
AST 21	Computer - Controlled Electronic Fuel Injection Systems	3
AST 23	The Clean Air Car	3
AST 36	Automotive Service Technology Projects Laboratory - Standard Transmissions Clutches, Drivelines, and Differentials/ Air Conditioning	1
	General Education	6

[1]Meets Natural Science Requirement for graduation general requirement.
[2]Math 116, 115 or 125 may be substituted. Any of these courses fulfills the Communication and Analytical Thinking Graduation General Education Requirement.

Certificate Program

For students who wish to complete a minimum of classes in one year to prepare for employment. A minimum of 45 units is required.

		UNITS
AST 1	Automotive Engines	5
AST 2	Suspension, Brakes and Power Systems	5
AST 3	Engine Diagnosis and Tune-Up	5
AST 4	Starting and Charging Systems/ Automotive Electrical Circuits	5
AST 5	Standard Transmissions, Clutches, Drive Lines, and Differentials	3
AST 6	Automatic Transmissions	5
AST 7	Air Conditioning	3
AST 20	Automotive Electronic Computer Control Systems	3
AST 21	Computer-Controlled Electronic Fuel Injection Systems	3
AST 23	The Clean Air Car	3
AST 32	Automotive Service Technology Projects Laboratory - Chassis and Suspension Systems	1
AST 34	Automotive Service Technology Projects Laboratory - Electrical Circuits	2
AST 36	Automotive Service Technology Projects Laboratory - Standard Transmissions, Clutches, Drivelines and Differentials/ Air Conditioning	1
	Elective	3

Industrial Technology - Drafting - Mechanical

Associate in Arts Degree

Faculty Advisor: L.W. Humphrey

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

This associate degree prepares the student for entry level employment as a draftsperson in engineering and manufacturing industries, as well as for positions existing with federal, state, and local government agencies. With the addition of practical industrial experience, draftspersons may eventually become designers in their chosen area of concentration. Includes introduction to and training in computer aided drafting.

		UNITS
FIRST SEMESTER		
Ind Tek 112	Applied Technical Drafting I	4
Ind Tek 130	Technology of Metal Machining Processes I	3
Ind Tek 105	Industrial Print Reading	3
Math 145	Technical Mathematics I	3
SECOND SEMESTER		
Ind Tek 212	Applied Technical Drafting II	4
[3]Ind Tek 218	Technical Descriptive Geometry	3
Ind Tek 242	Introduction to CAD/CAM-Numerical Control	3
Math 146	Technical Mathematics II	3
	General Education	3
THIRD SEMESTER		
Electm 28	Electronic and Electro-Mechanical Drafting I	2
Ind Tek 140	Fundamentals of CNC Technology	3
Ind Tek 217	Applied Computer Drafting I	4
Ind Tek 312	Applied Technical Drafting III	4
	General Education	4
FOURTH SEMESTER		
Ind Tek 223	General Metallurgy I	3
Ind Tek 317	Applied Computer Drafting II	4
	General Education	8

[1]Ind Tek 212 and 205 should be taken concurrently.
[2]Math 115 may be substituted for Math 145, and Math 240 for Math 146.

Carefully study Graduation Plan B under Graduation Requirements in the course catalog when considering alternative Gen Ed courses. Additional recommended courses include Art 132, Art 133, Ind Tek 150, 230, and 325.

Certificate Program

This certificate program is designed for students wishing to complete only the technical requirements in drafting. No General Education courses are included in this three semester program.

		UNITS
FIRST SEMESTER		
Ind Tek 112	Applied Technical Drafting I	4
Math 145	Technical Mathematics I	3
Ind Tek 105	Industrial Print Reading	3
SECOND SEMESTER		
Ind Tek 212	Applied Technical Drafting II	4
Ind Tek 217	Applied Computer Drafting I	4
Ind Tek 218	Technical Descriptive Geometry	3
Math 146	Technical Mathematics II	3
THIRD SEMESTER		
Ind Tek 312	Applied Technical Drafting III	4
Ind Tek 317	Applied Computer Drafting II	4

Industrial Technology - General

Certificate Program

For students who wish to complete a minimum of classes to prepare for employment. A minimum of 26 units is required. This program may be completed in one year.

		UNITS
IT 112	Applied Technical Drafting I	4
IT 120	Basic Woodworking	4
IT 130	Technology of Metal Machining Processes I	3
IT 140	Fundamentals of CNC Technology	3
IT 161	General Welding I	3

A minimum of 9 additional units must be completed. You may select 2nd and 3rd level courses offered in the disciplines listed above or any courses offered in Auto Service Technology.

Industrial Technology - Numerical Control Programming

Associate in Science Degree

Faculty Advisor: Ron Smetzer

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

Numerical Control is a system (sometimes referred to as CAM - Computer-Aided Manufacturing) using specially prepared instructions, developed by the N/C Programmer, to control the operation of various manufacturing equipment such as machine tools, inspection machines, woodworking machines, laser machines, and robots. The following associate degree is offered at the suggestion of the Industry Advisory Committee for Numerical Control. General Education requirements follow Graduation Plan B in this catalog. Courses may be taken in any sequence as long as the prerequisites are met. Students majoring in this area must meet each semester with Numerical Control Faculty Advisor Ron Smetzer.

		UNITS
FIRST SEMESTER		
	[4]Technical Elective	2
[1]Ind Tek 105	Blue Print Reading I	3
[2]Ind Tek 130	Technology of Metal Machining Processes I	3
Ind Tek 140	Fundamentals of CNC Technology	3
Math 146	Technical Mathematics II	3
(The above may provide entry level employment opportunities.)		
SECOND SEMESTER		
[2]Ind Tek 230	Technology of Metal Machining Processes II	3
Ind Tek 244	CNC Programming and Machine Operation - Lathe	3
	General Education	3
	[4]Elective	3
THIRD SEMESTER		
Ind Tek 242	Introduction to CAD/CAM - Numerical Control	3
Ind Tek 248	CNC Programming and Machine Operation - Mill	3
[2]Ind Tek 330	Technology of Metal Machining Processes III	3
[3]Gen Ed	Natural Science	3
FOURTH SEMESTER		
	[4]Industrial Technology Course	3
[3]Gen Ed	Language and Rationality	3
	General Education	6

[1]Drafting and Tooling Design Majors completing this Degree or Certificate may substitute Ind Tek 112.
[2]Phys Sc 1, Electm 2, 4 are recommended.
[3]Off Adm 32 is recommended for D1 of Graduation Plan B. See Certified Plan for transfer to a 4-yr institution. Computer languages and Electronics also recommended.

[4]Suggested electives: Num Con 185, 285, 385 are strongly recommended; Co Sci 506, 508, 513; Coop Ed; Math 260, Phil 6, 9; Speech 103. Care in selection could lead to a second certificate. See Ron Smetzer, NC Faculty Advisor.
[5]A computer science language class is recommended. Language and Rationality units total 6. They can be taken in any combination. See note 4.
[6]Ind Tek 130, 230, 330, 331 and 332 cannot be taken at the same hour in the same semester.
[7]See Advisor for proper selection to complete major.
[8]Minimum of 2 units in Ind Tek 332 or Ind Tek 217.

Certificate Program

The Certificate Program is designed for students wishing to complete only the technical requirements of the Numerical Control Programming Associate Degree program, secure employment, and possibly complete the Numerical Control Programming Associate Degree while employed and attending Pierce College part time. It is also designed to enable drafting, tool design, machine shop, and other majors to secure certification in Numerical Programming as a second area of expertise. The notes applying to the Associate Degree apply also to the certificate program. Courses may be taken in any sequence as long as the prerequisites are met. However, the first five courses listed provide a possible entry level employment package. Students working on this certificate program must meet each semester with Ron Smetzer, NC Faculty Advisor.

		UNITS
[2]Ind Tek 105	Blue Print Reading I	3
[1]Ind Tek 130	Technology of Metal Machining Processes I	3
Ind Tek 140	Fundamentals of CNC Technology	3
(The above provides a possible entry level employment package.)		
[1]Ind Tek 230	Technology of Metal Machining Processes II	3
Ind Tek 242	Introduction to CAD/CAM	3
Ind Tek 244	CNC Programming and Machine Operation - Lathe	3
Ind Tek 248	CNC Programming and Machine Operation - Mill	3
[1]Ind Tek 330	Technology of Metal Machining Processes III	3
	[3]Industrial Technology Course	3
Math 146	Technical Mathematics II	3

[1]Ind Tek 130, 230, 330, 331, 332 cannot be taken at the same hour the same semester.
[2]Drafting or Tooling Design Majors completing this certificate may substitute Ind Tek 112.
[3]See Advisor for proper selection to complete major.

Credit By Examination

Students may enter the program at a level appropriate to their previous industrial experience and training. See Credit by Exam Policies in this catalog.

Industrial Technology - Welding

Faculty Advisor: Bart Trinchero

The Welding program will provide intensive vocational training in all common types of welding. The student has the opportunity to prepare for certification in oxy-acetylene, shielded metal arc, and inert gas arc welding methods and can earn a Certificate of Completion.

Manipulative test for Los Angeles City Welding Certification is available for welding students and the general public. Contact Welding instructor for details.

Certificate Program

For students who wish to complete a minimum of classes to prepare for employment. A minimum of 33 units is required.

		UNITS
Ind Tek 161	General Welding I	3
Ind Tek 223	General Metallurgy I	3
Ind Tek 261	General Arc Welding I	3
Ind Tek 262	General Arc Welding II	3
Ind Tek 361	Inert Gas Arc Welding I	3
Ind Tek 362	Inert Gas Arc Welding II	3
Ind Tek 461	Advanced Arc Welding I	3
Ind Tek 462	Advanced Arc Welding II	3
Math 145	Technical Mathematics I	3
Math 146	Technical Mathematics II	3
	Coop Education or Directed Study	3

Industrial Technology - Woodworking

Faculty Advisor: C.H. Mull

Certificate Program - Woodwork/Cabinetmaking

		UNITS
Ind Tek 120	Basic Woodworking	4
Ind Tek 220	Machine Woodworking	4
Ind Tek 320	Cabinetmaking & Millwork Technology	4
Ind Tek 322	Painting and Finishing	2
Ind Tek 420	Furniture Repair and Refinish	2
	Management 13	3
	Office Administration 77	3
	Marketing 1	3
Ind Tek 112	Drafting 112	4
	Total	29

Italian

The main objective of the Italian program is to enable the students to acquire competence in understanding, speaking, reading and writing the Italian language. The objective of the program is also to develop an understanding and appreciation of the culture, history and literature of Italy.

Students are placed in Italian courses according to their previous study. In general one year of high-school Italian is equivalent to one semester at Pierce. Native speakers are encouraged to enroll in Italian 4, 5, or 6.

All Italian courses are taught primarily in the language. However, the instructor may choose to clarify certain concepts in English when necessary. By the end of the first year, students are able to use the basic structure of the language and the practical vocabulary learned to converse on everyday topics, as well as to read and write at an elementary level.

Italian 3 combines with Italian 8 (conversational Italian) to increase oral proficiency and also continues to raise the students ability to read and write.

In Italian 4, 5, 6, students gradually acquire more ease in expressing themselves orally and in writing. Combining a review of grammar with discussion and analysis of literary texts of increasing difficulty, these courses give students a broad overview of Italy and the Italian people and prepare students to live abroad.

Students are encouraged to participate in the International Education summer or semester program of study in Florence offered by the Los Angeles Community College District.

Career Opportunities

Italian will enhance careers in international business or trade, fashion, medical research, the gourmet food industry. Italian is especially desirable for students of classic or opera music, art and humanities.

Associate in Arts Degree

REQUIRED COURSES

		UNITS
Three courses chosen from the following:		
Italian 1, 2, 3, 4, 5, or 6	Elementary, Intermediate, Advanced Italian	15
	And	
Italian 8	Conversational Italian	2
	Total	17

RECOMMENDED ELECTIVES:

(These courses can also be applied towards General Education requirements under Graduation Plan A) Linguistics 1; English 203, 204; History 50; Anthropology 102; Art 102, 103; Humanities 12, 13.

Also recommended: International Business 1.

Journalism

See also Photojournalism

Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

This program was prepared with the cooperation of the Pierce College Journalism Advisory Committee, made up of professionals from the print media and from broadcasting and from public relations. It is designed for students who plan to enter those professions after two years of college. In addition to the A.A. degree, a certificate of achievement as a journalism major is awarded to the student upon graduation.

REQUIRED AREA SUBJECTS

		UNITS
Journal 100	Social Values in Mass Communications	3
[1]Journal 101	Collecting and Writing News	3
Journal 202	Advanced Newswriting	3
Journal 216	Copyreading and Headline Writing	3
Journal 218	Practical Editing	3-3
[2]Photo 10	Beginning Photography	3
Photo 20	Beginning Photojournalism	4

AREA ELECTIVE SUBJECTS (6 UNITS MINIMUM)
RECOMMENDED ELECTIVES

		UNITS
Art 500	Introduction to Design	3
Coop Ed	Cooperative Education	3
English 101	College Reading and Composition I and/or	3
English 28	Intermediate Reading and Composition	3
English 102	College Reading and Composition II	3
Journal 108	Article Writing	3
Journal 217	Publication Laboratory	2
Journal 219	Techniques for Staff Editors	1
Journal 220	Magazine Editing	3
Photo 11	Advanced Photography	4
Photo 12	Advanced Photographic Techniques	4
Photo 16	Fundamental Commercial Photography	3
Photo 17	Introduction to Color Photography	3
Photo 21	News Photography	4
Photo 27	History and Aesthetics of Photography	6
Pub Rel 1	Principles of Public Relations	3
	Shorthand (any)	3
	Typewriting (any)	3

GENERAL EDUCATION - SELECT 12 UNITS.

See graduation requirement section.

[1]Journal 101 meets the graduation general education requirement of section D.1.
[2]Photo 10 meets the graduation general education requirement of Section C.

Languages (Modern)

Associate in Arts Degree

Associate in Arts Degree programs in the different languages are listed separately under the following headings:

American Sign Language
French
Italian
Spanish

The Associate in Arts Degree in language may be used as undergraduate preparation for transfer to a Baccalaureate program at a four-year institution. It can also serve as proof of demonstrated competence in another language, and thus expand job opportunities in international business and trade, travel, translating, teaching, and government. Another language also provides valuable background for those pursuing studies in art, music, cinema, literature, and history.

Latin American Studies

The considerable value of an understanding of Latin America is generally evident today. The Latin American Studies Program offers a broad and flexible interdisciplinary approach designed to provide a comprehensive understanding of Latin America. The curriculum leads to the Associate in Arts degree with a major in Latin American studies that transfers to private and public four-year colleges and universities.

This major can lead to careers in government, foreign service, law, international business, journalism and many other fields after obtaining the Bachelor of Arts and/or Master of Arts degrees.

The following areas of knowledge are central to the Associate's degree in Latin American studies:

- knowledge and understanding of the major historical, cultural, social, political, and economic problems facing the Latin American community
- knowledge of chief historical factors that gave rise to existing institutions and processes
- an informed awareness of literature, art, and music in Latin America, including familiarity with the work of several recognized Latin American artists and authors
- In addition, students completing the degree in Latin American studies are expected to acquire:
- reading and speaking ability in Spanish;
- the ability to engage in thoughtful dialogue about Latin America with educated Latin Americans;
- the ability to locate Latin American ideas, historical events, and cultural phenomena in the Latin American context from which they originate; and
- the ability to communicate competently in effective English prose.

REQUIREMENTS FOR ASSOCIATE IN ARTS DEGREE

Satisfaction of the regular transfer and college requirements for the Associate Degree. Contact the Counseling Office for additional information.

1. Demonstrated proficiency in Spanish (successful completion of Spanish 4 or higher, Spanish 101, and Spanish 27).
2. A total of 24 hours from designated courses. Of these 24 hours, 9 must be in the area of social sciences (History 5 & 6 and Spanish 10) and 6 in the area of humanities (Spanish 12, 15, 25, or 26) with the remaining 9 in Spanish proficiency courses.
3. In addition, students may elect to take some of the breadth courses offered in the college including Anthropology 102 and Geography 2 or 10.
4. Latin American studies majors are strongly encouraged to include a study abroad semester or summer in their academic program. For further information concerning these programs abroad, contact Dean Paul Whalen in Academic Affairs at 719-6444.

Associate in Arts Degree

REQUIRED CORE CURRICULUM

		UNITS
History 5	History of the Americas I	3
	and	
History 6	History of the Americas II	3
Spanish 4	Intermediate Spanish II or higher	5*
Spanish 101	Spanish Language Laboratory	1
Spanish 27	Cultural Awareness through Advanced Conversation	3*
Spanish 10	Latin-American Civilization	3*
Two courses from the following:		6*
Spanish 12	Contemporary Mexican Literature or	3
Spanish 15	Great Books of Latin American Literature or	3
Spanish 25	Spanish American Short Story in Translation or	3
Spanish 26	Understanding Latin America through Film	3

RECOMMENDED BREADTH ELECTIVES

		UNITS
Anthro 102	Human Ways of Life: Cultural Anthropology	3
Geography 2	Cultural Elements of Geography	
	or	
Geography 10	Geography of the Americas	3

Students are encouraged to include a study abroad semester or summer in their academic program.

Faculty Advisors

Prof. Thomas F. O'Dea Phone 719-6452 Faculty Office 3104
Prof. Sheila Williams Phone 347-0551 Faculty Office 3004

Liberal Arts

Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

This program is designed for students who have not yet decided on a major field of study or who wish to sample a variety of subjects. The student must complete at least 30 semester units of general education requirements as listed in Graduation Plan A.

In addition, 18 semester units of degree-applicable courses are required. These may be taken in a variety of subject areas. A total of 60 units are required for the degree, of which 36 must be CSU transferable.

Music

Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

This program is designed for students desiring the Associate in Arts Degree in Music. Students planning to transfer should consult with a counselor regarding the elective provisions. Non-transfer students should use the elective provisions to take related courses.

		UNITS
FIRST SEMESTER		
Music 201	Harmony I	3
Music 211	Musicianship I	2
Music 321	Elementary Piano I	2
	Performance Organization (Music 501, 521, 531, 541, 561, 563, 721, 741, 745)	2
	General Education	6
SECOND SEMESTER		
Music 161	Introduction to Electronic Music	3
Music 181	Applied Music I	5
Music 202	Harmony II	3
Music 212	Musicianship II	2
Music 250	Music Performance Workshop	5
	Performance Organization (see above)	1
	General Education	6
THIRD SEMESTER		
Music 121		
or 122	Music History and Literature I or II	3
Music 182	Applied Music II	5
Music 203	Harmony III	3
Music 213	Musicianship III	2
Music 250	Music Performance Workshop<	5
Performance Organization (see above)		1
General Education		6
FOURTH SEMESTER		
Music 121		
or 122	Music History and Literature I or II	3
Music 183	Applied Music III	5
Music 250	Music Performance Workshop	5
	Performance Organization(see above)	2
	General Education	9

Nursing

Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

Los Angeles Pierce College offers an Associate in Arts Degree Nursing Program accredited by the California Board of Registered Nursing and the National League for Nursing. The graduate is prepared to function as an entry level nurse. Upon completion of the prescribed curriculum, the graduate is qualified to apply for licensure as a registered nurse in the State of California.

Nursing students receive clinical experience concurrently with classroom instruction. Nursing faculty teach and supervise clinical experiences. Local hospitals and other health agencies provide the clinical facilities where students under supervision administer direct nursing care to patients. Students must provide their own transportation.

Students must first be admitted into the Nursing program before they may take nursing courses. Details are available in the Counseling and Nursing Departments.

The following programs are also available for qualified individuals seeking career mobility: LVN-to-RN, LVN 30 Unit Option, Transfer and Challenge options, and Foreign Nurse Graduate placement. These programs provide a certificate of completion or an Associate in Arts degree with a major in Nursing. See the Department of Nursing for detailed information.

Portions of completed coursework from this program may be applied toward the attainment of a bachelor's degree in nursing. See your counselor for advice and information.

Students must complete all of the following general education requirements prior to entering the program:

GENERAL EDUCATION

		UNITS
Psych 1	General Psych	3
	or	
Psych 6	Human Behavior	3
Anatomy 1 or Physiol 8	Intro to Human Anatomy	4
Physiol 1 or 9	Intro to Human Physiol	4
Micro 1	Intro to Micro	5
	or	
Micro 20	General Micro	4
English 101	College Reading and Composition	3
Soc 1	Intro to Sociology	3
	or	
Soc 2	American Social Problems	
	or	
Anthro 102	Human Ways of Life: Cultural Anthropology	3
	Physical Education Activity	3
Speech 101	Oral Communication I	3
	Humanities	3
Physiol 18	Env., Metabolic & N. Phy.	3

NURSING CURRICULUM

FIRST SEMESTER		UNITS
Nursing 400	Fundamentals of Nursing	4
Nursing 402	Preparation for Drug Therapy	1
Nursing 407	Gerontic Nursing	3
Nursing 408	Mental Health Nursing	1
Nursing 401	Client Care Seminar I (optional)	1
SECOND SEMESTER		
Nursing 403	Medical-Surgical Nursing I	5
Nursing 405	Psychiatric Nursing	4
Nursing 424	Client Care Seminar II (optional)	1
THIRD SEMESTER		
Nursing 404	Maternity Nursing	4
Nursing 406	Medical-Surgical Nursing II	5
Nursing 444	Client Care Seminar III (optional)	1
FOURTH SEMESTER		
Nursing 414	Medical-Surgical Nursing III	5
Nursing 415	Pediatrics Nursing	4
Nursing 441	History, Trends and Issues of Nursing	1
Nursing 417	Client Care Seminar IV (optional)	1

General education requirements may be satisfied at LAPC or by equivalent courses elsewhere. Health Education is not required for Nursing students. For further information concerning course planning contact the Counseling and Nursing Departments.

GRADE REQUIREMENTS

All nursing courses must be completed with a grade of "C" or better. The following required non-nursing courses must also be completed with a grade of "C" or better: Anatomy, Physiology, Psychology, Microbiology, English, Sociology/Anthropology, Nutrition and Speech.

Specific program policies governing grading, withdrawal, readmission, probation and dismissal are available in the Nursing Student Handbook and from the Department of Nursing.

The California Board of Registered Nursing may deny a license regulated by the Business and Professional Code, Section 480, on such grounds as being convicted of a crime, acts of dishonesty, fraud or deceit, etc. Applicants who have questions regarding limitations related to licensure should contact the Board of Registered Nursing.

Office Administration - General Administrative

Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

Student may obtain an Associate in Arts degree in Office Administration by completing the courses shown in the following certificate program AND by satisfying all the requirements shown in the college catalog under Graduation Requirements and Graduation Plan B.

Certificate Program

The General Administrative Program prepares students for employment in business, government, and educational offices using automated systems and procedures. Emphasis is placed on the development of language skills and the use of computer-based word processing, spreadsheet, data base, and accounting software programs in the performance of office functions. Completion of this program enables the students to qualify for intermediate office positions and lays the foundation for entry into office management positions.

FIRST SEMESTER		UNITS
[1]Off Adm 2	Typewriting II	3
Off Adm 31	Business English	3
Off Adm 34	Business Vocabulary and Spelling	2
Off Adm 82	Microcomputer Software Survey in the Office	3
SECOND SEMESTER		
Off Adm 84	Microcomputer Office Applications: Word Processing	3
Off Adm 83	Microcomputer Office Applications: Operating Systems	1
	and	
Off Adm 92	Computer Windows Applications	2
	or	
Off Adm 89	Microcomputer Office Applications Disk Operating System	3
Off Adm 85	Microcomputer Office Applications: Spreadsheet	3
Acctg 21	Bookkeeping and Accounting I	3
THIRD SEMESTER		
Off Adm 39	Word Processing: Keyboarding and Operations	3
Bus 1	Introduction to Business	3
[2]Off Adm 71	Universal Transcription	3
Off Adm 86	Microcomputer Office Applications: Data Base	3
FOURTH SEMESTER		
Off Adm 32	Business Communications	3
Off Adm 78	Microcomputer Accounting Applications for the Electronic Office	3
Off Adm 79	Word Processing Applications	3
Off Adm 911	Cooperative Education	1

[1]See Catalog description for course prerequisites and corequisites. Students who have not acquired the necessary skills should enroll in Off Adm 1 or 9.
[2]Offered in the Fall semester only.
[3]Offered in the Spring semester only.

Office Administration - Legal Office Procedures

Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

Students may obtain an Associate in Arts degree in Office Administration by completing the courses shown in the following certificate program AND by satisfying all the requirements shown in the college catalog under Graduation Requirements and Graduation Plan B.

Certificate Program

The Legal Program prepares students for employment in a legal office. Emphasis is placed on the development of language skills, the spellings and meanings of legal terminology, and the preparation of legal proceedings and cases. Extensive instruction in computer-based word processing programs and applications along with an introduction to other computerized office functions prepares students to obtain a position in an automated legal office.

FIRST SEMESTER		UNITS
[1]Off Adm 2	Typewriting II	3
Off Adm 31	Business English	3
Off Adm 34	Business Vocabulary and Spelling	2
Off Adm 82	Microcomputer Software Survey in the Office	3
SECOND SEMESTER		
Acctg 21	Bookkeeping and Accounting I	3
Off Adm 84	Microcomputer Office Applications: Word Processing	3
[3]Off Adm 70	Human Relations in the Office	3
Off Adm 83	Microcomputer Office Applications: Operating Systems	1
	and	
Off Adm 92	Computer Applications Windows	2
	or	
Off Adm 89	Microcomputer Office Applications: Disk Operating Systems	3

THIRD SEMESTER		
[3]Off Adm 23	Legal Secretarial Procedures I	5
Off Adm 39	Word Processing: Keyboarding and Operations	3
[3]Off Adm 71	Universal Transcription	3
FOURTH SEMESTER		
[3]Off Adm 24	Legal Secretarial Procedures II	5
Off Adm 32	Business Communications	3
[3]Off Adm 79	Word Processing Applications	3
Off Adm 911	Cooperative Education	1

[1]See Catalog description for course prerequisites and corequisites. Students who have not acquired the necessary skills should enroll in Off Adm 1 or 9.
[2]Offered in the Fall semester only.
[3]Offered in the Spring semester only.

Office Administration - Professional Secretary

Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

Students may obtain an Associate in Arts degree in Office Administration by completing the courses shown in the following certificate program AND by satisfying all the requirements shown in the college catalog under Graduation Requirements and Graduation Plan B.

Certificate Program

The Professional Secretary Program prepares students for supervisorial and managerial positions in business offices. This curriculum is directed toward enabling a candidate to successfully complete an examination developed and administered by the Institute for Certifying Secretaries, a department of Professional Secretaries International (PSI), in order to attain the designation Certified Professional Secretary. Completion of this curriculum, acceptable scores on the CPS Examination, and two to four years of successful secretarial experience qualify the student for CPS certification.

		UNITS
FIRST SEMESTER		
Acctg 1	Introductory Accounting I	5
[1]Off Adm 2	Typewriting II	3
Off Adm 31	Business English	3
Off Adm 84	Microcomputer Office Applications: Word Processing	3
SECOND SEMESTER		
Bus 5	Business Law I	3
Mgmt 2	Organization and Management Theory	3
[2]Off Adm 78	Microcomputer Acctg Applications for the Electronic Office	3
Off Adm 85	Microcomputer Office Applications: Spreadsheet	3
THIRD SEMESTER		
Econ 2	Principles of Economics II	3
Off Adm 32	Business Communications	3
[2]Off Adm 71	Universal Transcription	3
Office Adm 83	Microcomputer Office Applications: Operating Systems	1
	and	
Off Adm 92	Computer Applications Windows	2
	or	
Off Adm 89	Microcomputer Office Applications: Disk Operating Systems	3
Off Adm 86	Microcomputer Office Applications: Data Base	3
FOURTH SEMESTER		
Off Adm 39	Word Processing: Keyboarding and Operations	3
Bus 1	Introduction to Business	3
[2]Off Adm 79	Word Processing Applications	3
Off Adm 911	Cooperative Education	1

[1]See Catalog description for course prerequisites and corequisites. Students who have not acquired the necessary skills should enroll in Off Adm 1 or 9.
[2]Offered in the Fall semester only.
[3]Offered in the Spring semester only.

Office Administration - Basic Computerized Accounting*

Certificate Program

The student is prepared for entry-level employment in business, government or educational offices. The student will utilize automated systems and procedures for bookkeeping and accounting applications and the processing of financial and managerial reports.

		UNITS
[1]Acctg 1	Introductory Accounting	5
	or	
[1]Acctg 21	Bookkeeping and Accounting 1	3
	or	
[1]Off Adm 77	Microcomputer Accounting for the Electronic Office	3
Off Adm 78	Microcomputer Accounting Applications for the Electronic Office	3
Off Adm 85	Microcomputer Office Applications: Spreadsheet	3
[2]Off Adm 83	Microcomputer Office Applications: Operating Systems	1
	and	
[2]Off Adm 92	Computer Windows Applications	2
	or	
[2]Off Adm 89	Microcomputer Office Applications: Disk Operating System	3

[1]Students would select one course from Accg 1, 21, or Off Adm 77.
[2]Students would take either Off Adm 83 and Off Adm 92 or Off Adm 89.

For an Associate of Arts Degree or a Two-Year Certificate in Accounting refer to listing under Business Administration: Accounting.

Office Administration - Basic Computer Applications

Certificate Program

Students are prepared for employment in business, government, and educational offices using computerized systems and procedures. Emphasis is placed on developing skills in the use of word processing, spreadsheet, and database software to perform routine office functions. Completion of this program enables students to qualify for entry-level positions in an automated office and lays the foundation for further study and advancement in office occupations.

		UNITS
Off Adm 2	Typewriting II	3
Off Adm 82	Microcomputer Software Survey in the Office	3
Off Adm 31	Business English	3
Off Adm 34	Business Vocabulary and Spelling	2
Off Adm 39	Word Processing: Keyboarding and Operations	
	or	
Off Adm 84	Microcomputer Office Applications: Word Processing	3
Off Adm 85	Microcomputer Office Applications: Spreadsheet	3
Off Adm 86	Microcomputer Office Applications: Data Base	3
Off Adm 89	Microcomputer Office Applications: Disk Operating System	3

Office Administration - Basic Word Processing: Microsoft Word For Windows

Certificate Program

Students may obtain a basic word processing certificate in WORD by completing the courses shown below. Completion of the program provides the student with the skills required for entry-level employment in offices utilizing WORD software.

		UNITS
[1]Off Adm 2	Typewriting II	3
Off Adm 31	Business English	3
Off Adm 34	Business Vocabulary and Spelling	2
Off Adm 82	Microcomputer Software Survey in the Office	3
Off Adm 89	Word Processing: Keyboarding and Operations	3
[2]Off Adm 79	Word Processing Applications	3

[1]See catalog description for course prerequisites and corequisites.
[2]Offered Spring semester only.

Office Administration - Basic Word Processing: Wordperfect

Certificate Program

Students may obtain a basic word processing certificate in WordPerfect by completing the courses shown below. Completion of the program provides the student with the skills required for entry-level employment in offices utilizing WordPerfect software.

		UNITS
[1]Off Adm 2	Typewriting II	3
Off Adm 31	Business English	3
Off Adm 34	Business Vocabulary and Spelling	2
Off Adm 82	Microcomputer Software Survey in the Office	3
Off Adm 84	Microcomputer Office Applications: Word Processing	3
[2]Off Adm 79	Word Processing Applications	3

[1]See Catalog description for course prerequisites and corequisites.
[2]Offered Spring semester only.

Office Administration - Office Communications

Certificate Program

Students are prepared for employment in business, government, and educational offices. Emphasis is placed on the development of typewriting and language skills to perform the following functions: transcribe business documents; compose and prepare simple letters, memorandums, and reports; handle telephone inquiries; and complete forms that require typewritten responses. Completion of this program enables students to qualify for entry-level office positions and lays the foundation for further study and advancement in office occupations.

		UNITS
Off Adm 31	Business English	3
Off Adm 34	Business Vocabulary and Spelling	2
[1]Off Adm 2	Typewriting II	3
Off Adm 32	Business Communications	3
[2]Off Adm 71	Universal Transcription	3

[1]See Catalog Description for course prerequisites and corequisites.
[2]Offered Fall semester only.

Photojournalism

Also see Journalism

Associate in Arts Degree *(An option under Journalism)*

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

This program offers a combination of theory and practice so that the student can become a successful newspaper or magazine photographer. Publication job opportunities are open to graduates with this training. Laboratory work includes taking the picture, developing the film and printing the photograph. In addition to the A.A. degree, a certificate of achievement as a photojournalism major is awarded to the student upon graduation.

REQUIRED AREA SUBJECTS

		UNITS
Journal 100	Social Values in Mass Communications	3
[2]Journal 101	Collecting and Writing News	3
Journal 202	Advanced Newswriting	3
[1]Photo 10	Beginning Photography	3
Photo 11	Advanced Photography	4
Photo 16	Fundamental Commercial Photography	3
Photo 17	Introduction to Color Photography	3
Photo 20	Beginning Photojournalism	4
Photo 21	News Photography	4
Photo 27	History and Aesthetics of Photography	6
	Elective Area Subjects	

RECOMMENDED ELECTIVES

		UNITS
Art 500	Introduction to Design	3
Cinema 3	History of Motion Pictures and Television	3
Cinema 18	Main Currents in Motion Pictures	3
Coop Ed	Cooperative Education	3
English 28	Intermediate Reading and Composition or/and	
English 101	College Reading and Composition I	3
English 102	College Reading and Composition II	3
Journal 108	Article Writing	3
Journal 217	Publication Laboratory	2
Journal 218	Practical Editing	3
Photo 12	Advanced Photographic Techniques	4
Pub Rel 1	Principles of Public Relations	3
	Shorthand (any)	
	Typewriting (any)	

GENERAL EDUCATION - SELECT 12 UNITS

See graduation requirements section.

[1]Photo 10 meets the graduation General Education Requirements, of Plan B, Part C.
[2]Journal 101 meets the graduation General Education Requirements, of Plan B, Part D1.

Pre-Engineering

Associate in Science Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

A student may receive an Associate in Science degree in pre-engineering by taking at least 36 units from the subjects listed below, completing 18 units in general education as per Plan B (see graduation requirements) and completing 60 units overall. This degree is designed for the student planning to transfer to a four year college or university as an engineering major.

Just taking any 36 units, however, will not qualify one for admission to upper division Engineering. Students are urged to see a counselor for qualifying courses.

COURSES WHICH QUALIFY FOR THE 36 UNITS

Chem 101, 102
Co Sci 515, 516, 539
Math 261, 262, 263, 270, 275, plus any CSU transferable mathematics course which is prerequisite to Math 261.
Physics 37, 38, 39
Philosophy 9

Students must have at least 1 course from each of the categories above.

Students should see counselor or department chair for preferred courses from above list.

Religious Studies

CORE COURSES: MINIMUM OF 12 UNITS REQUIRED.

		UNITS
Anthro 121	Anthropology of Religion, Magic and Witchcraft	3
English 250	Mythology and Literature	3
English 252	The English Bible as Literature	3
History 7	The World's Great Religions	3
Human 11	The Ancient World	6
Human 12	The Middle Ages and the Renaissance	6
Philos 30	Asian Philosophy	3
Philos 35	Judaism, Christianity, and Islam	3
Soc 15	Religion and American Society	3

BREADTH COURSES: TAKE THE REMAINING 6 TO 12 UNITS FROM EITHER CORE OR BREADTH COURSES:

		UNITS
Anthro 101	Human Biological Evolution	3
Anthro 102	Human Ways of Life: Cultural Anthropology	3
Anthro 103	Archaeology: Reconstructing the Human Past	3
Anthro 113	Field Archaeology	3
Anthro 123	American Folkways and Folklore	3
Anthro 132	North American Indians	3
Art 101	Survey of Art History I	3
Art 102	Survey of Art History II	3
English 101	College Reading and Composition I	3
English 203	World Literature I	3
English 204	World Literature II	3
Geog 2	Cultural Elements of Geography	3
History 1	Introduction to Western Civilization I	3
History 5	History of the Americas I	3
History 77	Hebrew Civilization II	3
Human 13	From the Reformation to the French Revolution	6
Human 14	The 19th and 20th Centuries	6
Ling 1 (Anthro 104)	Introduction to Language and Linguistics	3
Philos 12	History of Greek Philosophy	3
Philos 19	Contemporary Problems in Bioethics	3
Philos 20	Ethics	3
Soc 1	Introduction to Sociology	3
Soc 4	Sociological Analysis	3

GENERAL EDUCATION REQUIREMENT

A STUDENT GRADUATING FROM PIERCE WITH AN AA DEGREE AND A MAJOR IN RELIGIOUS STUDIES IS REQUIRED TO TAKE 30 UNITS OF GENERAL EDUCATION COURSES AND AT LEAST 18 UNITS OF RELIGIOUS STUDIES (SEE GRADUATION REQUIREMENTS, PLAN A).

Sign Language

See American Sign Language in this section

Spanish

The main objectives of the program in Spanish are to develop competence in the ability to understand, speak, read, and write Spanish, and to provide through the knowledge of Spanish an understanding and appreciation of the language and culture.

Students are placed in Spanish courses according to their years of previous study. In general, one year of high school Spanish is equated to one semester of Pierce College work. Thus recent high school graduates with one, two, three, or four years of high school Spanish will enroll in Spanish 2, 3, 4, or 5 respectively. Exceptions to this basic placement formula may be made after consultation with the Spanish Faculty. Proficient native speakers should enroll in Spanish 4, 5, or 6.

All courses in Spanish, unless specifically stated, are taught in the foreign language. By the end of the first year, students attain mastery of the basic structure of the language and ability to converse on everyday topics as well as read and write on an elementary level.

In the second year, Spanish 3 and 4, emphasis is put on gradually raising the student's ability to speak, read, and write. Spanish 27, Cultural Awareness Through Advanced Conversation, combines with Spanish 4 to increase oral proficiency and prepares a student to live in a foreign country.

Spanish 5 and 6 stress composition and analysis and appreciation of many short literary selections, short stories, and films.

The courses taught in English, including Latin American Civilization, Understanding Latin America Through Film, Contemporary Mexican Literature, Great Books of Latin America, and The Spanish American Short Story, combine a panoramic overview with a close look at a specific country or topic.

Students are encouraged to participate in programs of study abroad during the summer or semester abroad program.

Career Opportunities

Spanish is particularly useful in international business or trade, community or social service, and in foreign service. Majoring in Spanish is excellent preparation for graduate and professional study in law, medicine, government, social welfare, international relations, journalism, or education.

Associate in Arts Degree

REQUIRED COURSES

		UNITS
Spanish 4	Intermediate Spanish I or higher	5
	and	
Spanish 101	Spanish Language Laboratory	1
Spanish 10	Latin-American Civilization	3
Spanish 27	Cultural Awareness through Advanced Conversation	3
Any two of the following courses:		6
Spanish 12	Contemporary Mexican Literature	3
	or	
Spanish 15	Great Books of Latin America	3
	or	
Spanish 25	Spanish American Short Story	3
	or	
Spanish 26	Understanding Latin America Through Film	3

RECOMMENDED ELECTIVES

Anthro 102	Human Ways of Life: Cultural Anthropology	3
	or	
Ling 1	Introduction to Language and Linguistics	
History 5	History of the Americas I	3
	and	
History 6	History of the Americas II	3

Theater

Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

This program is designed to meet the requirements of the Associate in Arts Degree and to provide instruction in theater history, literature, acting, and technical stage work. Public performances of plays are given with opportunities for practical experience. Second semester students may participate in drama productions by enrolling in Theater 232, Play Production or Theater 250, Children's Theater.

FIRST SEMESTER		UNITS
[1]Theater 100	Introduction to the Theater	3
Theater 240	Voice and Articulation for the Theater	3
Theater 270	Beginning Acting	3
[2]Theater 342	Technical Stage Production	2
	or	
[3]Theater 411	Costuming for the Theater	3
	General Education	3
SECOND SEMESTER		
Theater 232	Play Production or	2
Theater 250	Children's Theater Production	2
	or	
Theater 292	Rehearsals and Performances	2
Theater 271	Intermediate Acting	2
[2]Theater 342	Technical Stage Production	2
	or	
[4]Theater 411	Costuming for the Theater	3
	General Education	6
	Elective	3
THIRD SEMESTER		
Theater 110	History of World Theater	3
Theater 232	Play Production	2
	or	
Theater 250	Children's Theater Production	2
	or	
Theater 292	Rehearsals and Performances	2
Theater 273	Advanced Acting	2
Theater 450	Beginning Stage Make-up	2
	General Education	6
FOURTH SEMESTER		
Theater 115	History of the American Theater	3
	or	
Theater 125	Dramatic Literature	3
Theater 232	Play Production	2
	or	
Theater 250	Children's Theater Production	2
	or	
Theater 292	Rehearsals and Performances	2
Theater 300	Introduction to Stage Craft	3
	General Education	3
	Elective	3

Recommended Electives: *Theater 125, 130, 225, 243, 265, 400, 422.*
[1]Meets Graduation General Education Requirement - Humanities
[2]Prerequisite for Theater 232 - Play Production
[3]May substitute Theater 422
[4]Recommended one semester Theater 342 followed by one semester of any costume class

Transfer Program to CSUN *(Courses to take at Pierce)*
Theater 100, 270, 271 or 273, Theater 300, 310, Theater 411, 450.

Theater - Costume Option

Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

FIRST SEMESTER		UNITS
[1]Theater 100	Introduction to Theater	3
Theater 270	Beginning Acting	3
Theater 300	Introduction to Stage Craft	3
[2]Theater 422	Applied Costuming for the Theater	2
	General Education	4
SECOND SEMESTER		
Theater 315	Introduction to Theatrical Scenic Design	3
[2]Theater 422	Applied Costuming for the Theater	2
Theater 450	Beginning Stage Meka-up	2
	Electives	4
	General Education	4
THIRD SEMESTER		
Theater 310	Introduction to Theatrical Lighting	3
[2]Theater 422	Applied Costuming for the Theater	2
	General Education	6
	Electives	4
FOURTH SEMESTER		
Speech 101	Oral Communication I	3
Theater 342	Technical Stage Production	2
Theater 400	Costume Periods and Styles	3
	Electives	4
	General Education	3

[1]Meets Graduation General Education Requirement Humanities
[2]May substitute Theater 411 Costuming for the Theater

Transfer Program to CSUN *(Courses to take at Pierce)*
Theater 100, 270, and one course from 271 or 273, Theater 300, 310, Theater 411, 450.

Theater - Technical Theater Option

Associate in Arts Degree

Associate Degree programs DO NOT necessarily constitute the first two years of a program leading to a bachelor's degree.

FIRST SEMESTER		UNITS
[1]Theater 100	Introduction to the Theater	3
Theater 270	Beginning Acting	3
Theater 300	Introduction to Stage Craft	3
Theater 342	Technical Stage Production	2
	General Education	4
SECOND SEMESTER		
Theater 315	Introduction to Theatrical Scenic Design	3
Theater 342	Technical Stage Production	2
Theater 450	Beginning Stage Make-up	2
	Elective	2
	General Education	6
THIRD SEMESTER		
Theater 310	Introduction to Theatrical Lighting	3
Theater 342	Technical Stage Production	2
	Elective	4
	General Education	6
FOURTH SEMESTER		
Speech 101	Oral Communication I	3
[2]Theater 411	Costuming for the Theater	3
	Electives	6
	General Education	3

[1]Meets Graduation General Education Requirement Humanities
[2]May substitute Theater 422. Costume majors should consult with department chairperson for correct courses

Transfer Program to CSUN *(Courses to take at Pierce)*
Theater 100, 270 and one course from 271 or 273, Theater 300, 310, Theater 411, 450.

Cooperative Work Experience Education

(CWEE) combines on-the-job experience with regular classroom instruction. It is designed to expand skills and knowledge and to improve self understanding by integrating classroom study with planned supervised work experience. CWEE is based on the principle that well educated individuals develop most effectively by incorporating related education and work experience. These structured experiences in business, industry, government and human services bring an enrichment to college studies which enhances the student's total development. It is called CWEE because the educational objectives are carefully planned and coordinated with the student's employer to provide realistic employment experience. The objectives are:

1. To provide opportunity for the student to secure employment on a part-time or full-time basis.
2. To gain realistic work experience that is meaningfully related to the student's college study program.
3. To provide the student opportunity to acquire knowledge, skills, and attitudes essential for successful employment.

Benefits of Cooperative Work Experience Education

The student:

1. Has the opportunity to learn or improve employment skills under actual working conditions.
2. Gains perspective on career goals through application of classroom theory to "real life experience."
3. Builds self-identity and confidence as a worker through individual attention given by instructor/coordinators and employers.
4. Has opportunities to test personal abilities in work environments.
5. Has a more realistic approach to the job market.
6. Will gain a better understanding of human relations.
7. Will learn to apply Management By Objectives (MBO).
8. May refer to work experience education on future job applications.
9. Benefits financially while learning.
10. Can begin a career earlier.

Student Qualifications

THERE ARE TWO PLANS FOR CWEE:

Parallel Plan:

1. Pursue a planned program based on measurable learning objectives agreed to, with CWEE instructor/ Coordinator.
2. Be enrolled in no less than 7 units (including CWEE units).
3. During summer sessions be enrolled in at least 1 other class in addition to CWEE.

Occupational Work Experience (Parallel Plan)

Hours by Arrangement, 1-4 units
Prerequisite: Approval of Work Experience Coordinator.

A program of on-the-job learning experience for students employed in a job related to an occupationally oriented major in which no work experience course is offered. May be repeated three times for a maximum of 16 units. To receive credit a student must complete a minimum of seven units during the semester, including work experience.

General Work Experience (Parallel Plan)

Hours by Arrangement, each course 1-3 units
Prerequisite: Approval of Work Experience Coordinator

A program of on-the job learning experiences designed to assist the student in developing occupational effectiveness. Employment need not be related to the student's vocational or occupational major. One unit of credit is earned for each 75 hours of paid employment or 60 hours of volunteer work, with a maximum of 3 units. To receive credit a student must complete 7 units, including work experience. During summer session one other course must be taken concurrently. May be repeated once for a total of 6 units.
OR

Alternate Plan:

1. Pursue a planned program based on measurable learning objectives agreed to, with the CWEE instructor/Coordinator.
2. Have earned at least seven units of class work before enrolling.

Occupational Work Experience (Alternate Plan)

Hours by Arrangement 1-8 units
Prerequisite: Approval of Work Experience Coordinator

A program of on-the-job learning experiences which enables the student to attend college full-time one semester and work full-time the following semester. The work must relate directly to the student's educational goal and he/she must have satisfactorily completed at least seven units of credit and may not be enrolled concurrently in more than one other course. Eligibility determined by regulations in Title V, California Administrative Code. May be repeated three times for a maximum of 16 units.

General Work Experience (Alternative Plan)

Hours by Arrangement, 1-6 units

A program of on-the-job learning experiences which enables the student to attend college full-time one semester and work full-time the following semester. Under this plan the work need not relate directly to the student's educational goal. The student must have completed at least 7 units of credit and may not be enrolled concurrently in more than one other course. Eligibility for enrollment will be determined in accordance with applicable regulations contained in Title V, California Educational Code.

Students may switch between plans until they have earned seven units of other class work.

Cooperative Work Experience Education Credit Guide

CALIFORNIA STATE UNIVERSITY: APPROVED COOPERATIVE EDUCATION SUBJECT AREAS

Los Angeles Community College District policy provides that a **maximum of eight (8) semester units in Cooperative Education** courses completed in the subject areas listed below may be applied toward the California State University 56 unit admission requirement.

Accounting
Administration of Justice
Afro-American Studies
Agriculture
Air Conditioning Technology
Aircraft Electronics Technology
Animal Husbandry
Anthropology
Architecture
Art
Astronomy
Aviation Maintenance Technician
Biology
Botany
Broadcasting
Business
Business Data Processing
Chemistry
Chicano Studies
Child Development
Cinema
Commercial Art
Computer Maintenance Technician
Computer Science - Information Technology
Computer Technology
Dairy Husbandry
Drafting
Economics
Education
Electronics
Electronics Technician
Electronics Technology
Engineering
English
Environmental Science
Family and Consumer Studies
Fire Science
Foreign Languages
Geography
Geology
Health
History
Humanities
Industrial Arts
Jewish Studies
Journalism
Law
Linguistics
Management
Mathematics
Mechanical Drafting
Medical Record Science
Merchandise Display (Visual Merchandising and Display)
Merchandising (Marketing)
Meteorology
Microbiology
Mineralogy
Music
Natural Resources Management
Nursing
Oceanography
Office Administration (Secretarial Science)
Philosophy
Photography
Photography, Commercial (Photography-T)
Physical Education
Physics
Physiology
Political Science
Psychology
Public Service
Real Estate
Recreation
Respiratory Therapy
Restaurant Management
Sign Graphics
Social Science
Sociology
Speech Communication
Statistics
Technical Illustration
Television
Theater
Transportation
Urban Planning
Water Systems Technology
Zoology

Transfer **Requirements**

Transfer To Other Colleges

The requirements of the various colleges and universities vary so greatly that it is not possible to prescribe a program of work which will apply to all. **Therefore, although many courses offered at Pierce College are of collegiate level, special identification is given to those courses which are accepted for transfer at the University of California at Los Angeles.**

In general, these procedures should be followed:

1. Students should consult the catalog of the college to which they intend to transfer. They should choose those courses at Pierce in accordance with the requirements of the college desired, as noted in its catalog.
2. They should consult with a Pierce College Counselor.

The College Library and the Career Center have many catalogs on file for reference. Students should obtain a catalog for their personal use directly from the registrar of the college which they plan to attend.

Some courses do not carry credit toward graduation from a university. Students should not expect college or university credit for courses unless they know definitely that such courses will be accepted by the institution in question.

Transfer requirements are prescribed by the receiving institution.

Transfer To Either University Of California Or California State University System - IGETC

The Intersegmental General Education Transfer Curriculum (IGETC) is an agreement by the California Community Colleges, the California State Universities, and the University of California on a common transfer plan. The IGETC consists of a series of courses which, if completed **prior to transfer**, allows community college transfer students the opportunity to satisfy the lower-division general education requirements for any campus of the CSU or UC, without the need, after transfer, to take additional lower-division courses.

The IGETC is advisable for most California Community College students who have not yet decided on a major or a particular campus and who want to keep their options open before making a final decision about transferring into either UC or CSU. For some majors IGETC may be inappropriate. Students who are pursuing UC majors that require extensive lower-division preparation to be admitted to the major may find the IGETC inadvisable - See Counseling Office for information.

The IGETC can be certified for California community college transfers who have also completed transfer units at a CSU, UC or independent college *provided that the student has completed most of the transfer units at one or more California community colleges.* A California community college student is usually defined as one who has completed or will complete 30 or more total units at a California community college. Students who initially enroll at a UC campus, then leave and attend a community college, and subsequently return to the same campus are considered "readmits" by the University. Such a student cannot use the IGETC - this is true at all UC campuses. However, students who enroll at a UC campus, then leave and attend a community college, and subsequently return to a *different* UC campus may be able to use the IGETC, but students need to check with the campus they wish to attend.

Since the IGETC must be completed in its entirety prior to transferring, **students who do not complete it before transferring will be subject to the specific general education pattern at the UC campus to which they are transferring.** Students who are CSU bound will still have the option of completing the CSU certified plan.

Since the IGETC has frequent revisions, students must consult with a counselor or pick up the latest version in the Counseling Office, ADM 1000.

UC ELIGIBILITY: Students who were not eligible to enter the University of California at the time of high school graduation may become eligible to enter the University if they complete 56 UC transferable units (most UCs require 60 units) and satisfy their high school subject deficiencies. To insure that you have no subject deficiencies, complete these courses, all with a grade of "C" or better: (1) English 101; (2) Math 125 and a geometry class, or a more advanced math course requiring Math 125 as a prerequisite (Statistics 1 is acceptable); (3) one additional course selected from United States History, lab science, or foreign language.

PLEASE NOTE: Although a course may be listed in more than one subject area, a single course may be used just once. Only "C" grades or better will be accepted (no C-), and credit/no credit courses are acceptable only if the college catalog defines credit as equivalent to a letter grade of "C" or better (as it does at Pierce).

CERTIFICATION: IGETC must be certified PRIOR to transfer. Certification of these units is not automatic, and no partial certification will be allowed. Certification must be requested in the Graduation Office when the student completes all of the IGETC requirements. If courses used to fulfill the IGETC were completed at colleges other than Pierce or a college within the Los Angeles Community College District, official transcripts must be sent to the graduation office. If you are using high school courses to fulfill the "Language Other than English" requirement for the IGETC (UC only), an official high school transcript must be on file in the graduation office. Furnishing official transcripts from colleges or high schools is the responsibility of the student. Students who leave the college, breaking continuous enrollment, will be placed under the IGETC plan in effect for the year that they return.

COURSES COMPLETED AT OTHER COLLEGES: Courses that are completed at any **accredited** college can be used in the IGETC certification. Students should be aware, however, that coursework from other California community colleges will be applied in the IGETC category determined by the original college. Students may petition in the Graduation Office to use courses taken at UC, CSU, private or out of state schools. Petitions will be evaluated to determine if courses are equivalent to those on the Pierce IGETC plan.

AP SCORES: AP scores of 3 or higher can be used to satisfy any IGETC subject area except the Critical Thinking/English composition and the communication requirement. Even though credit for more than one course can be awarded by Pierce for AP scores of 3 higher, only one course in the subject for which the AP test was taken can be used on the IGETC. Some universities do not award course credit for AP scores. STudents should check with a counselor and/or the institution to which they plan to transfer.

DOUBLE-COUNTING: UC will allow requirements completed as preparation for the major to be used in the IGETC wherever they appear.

PROFICIENCY IN A LANGUAGE OTHER THAN ENGLISH: Verification of this requirement will be based on official records (either high school or college) indicating completion of coursework (with grades of "C" or better) equivalent to two years in high school of the same foreign language. Students can also meet this requirement by providing evidence of appropriate scores on AP exams (scores of 3 or more are acceptable) or by earning a minimum score to 500 on the College Board Achievement Test.

COURSES TAKEN AT FOREIGN INSTITUTIONS: These courses will **NOT** be permitted for certification on the IGETC.

Some ITV course work may be used - see a counselor.

The following list is for students beginning the academic year 1996-97 or after:

AREA 1 - ENGLISH COMMUNICATION

CSU - 3 courses required, one from each group below. UC - 2 courses required, 1 each from Group A & B.

Group A: English Composition, 1 course, 3 semester units, or 4-5 quarter units
English 101

Group B: Critical Thinking - English Composition, 1 course, 3 semester units, or 4-5 quarter units.
Prior to completing either of these courses, a student must have completed English 101 with a grade of "C" or higher.
English 102
English 103
Philosophy 201.

Group C: Oral Communication **(CSU requirement only)**
1 course, 3 semester units, or 4-5 quarter units
Speech Communications 101 or 104.

AREA 2 -MATHEMATICAL CONCEPTS and QUANTITATIVE REASONING

1 course, 3 semester units, or 4-5 quarter units

Mathematics 227 (225)**, 238**, 239**, 245**, 255**, 260**, 261**, 262**; Statistics 1**.

AREA 3 - ARTS and HUMANITIES

3 courses required, at least 1 from each group below. 9 semester units, or 12-15 quarter units

Group A: Arts
Art 101, 102, 103, 111, 137-139, 500**, 501**, 502**; Music 111, 112, 121, 122; Cinema 3, 18; Photography 27; Physical Education 802, 803, 804

Group B: Humanities;
Anthropology 104 (same as Linguistics 1), 105, 121, 123; English 203, 204, 205, 206, 207, 208, 209, 211**, 212**, 213 (same as Theater Arts 125), 214, 215, 216, 219, 239, 240**, 250, 252, 270; French 3, 4, 5, 6; History 1, 2, 7; Humanities 3, 6, 11, 12, 13, 14, 30, 31, 60; Italian 3, 4, 5, 6; Japanese 3; Linguistics 1 (same as Anthropology 104); Philosophy 1-4, 19, 20, 22, 24, 25; 41, Sociology 11, 15; Spanish 3, 4, 5, 6, 12, 15, 25; Speech Communications 130; Theater Arts 100, 110, 115, 125 (same as English 213).

AREA 4 - SOCIAL and BEHAVIORAL SCIENCES

3 courses from at least 2 disciplines. 9 semester units, or 12-15 quarter units

Anthropology 102, 103, 112, 132; Economics 1, 2, 10 (same as History 15); Environmental Science 17 (same as Geography 14); Geography 2, 5, 7, 8, 10, 12, 14 (same as Environmental Science 17); History 3, 4, 5, 6, 8, 11***, 12***, 13***, 14***, 15 (same as Economics 10), 20, 21, 30, 41***, 42***, 43, 44, 50, 52*, 77, 86, 87; Law 3; Political Science 1*, 2, 7, 14, 30*, 35 (American Foreign Policy); Psychology 1**, 6**, 11, 13, 14, 18, 41, 52, 66; Sociology 1, 2, 4**, 6, 13, 18**, 30. Spanish 10; Speech Communications 121.

AREA 5 - PHYSICAL and BIOLOGICAL SCIENCES

2 courses, 1 from each group, at least 1 must include a laboratory.

Lab courses are underlined. 7-9 semester units, or 9-12 quarter units. The lab selected must correspond to the lecture course used.

Group A: Physical Sciences

Astronomy 1**, 2**, 3** ; Chemistry 51** , 60** , 70** , 101, 102, 201, 211** , 221** ; Environmental Science 1, 7 (same as Geology 10), 18 (same as Geography 9); Geography 1, 3 (same as Meteorology 3), 9 (same as Environmental Science 18), 15 , 17 ; Geology 1, 2**, 6 , 7** , 10 (same as Environmental Science 7), 22ABCD (3 unit minimum); Meteorology 3 (same as Geography 3), 4 ; Oceanography 1, 10 ; Physical Science 1**, 4** , 14** ; Physics 6** , 7** , 11** , 12** , 37AB**, 38AB**, 39AB**.

Group B: Biological Sciences

Agriculture 901** (same as Environmental Science 5); Anatomy 1; Anthropology 101, 111; Biology 3**, 6, 7, 10, 11**, 25**; Environmental Science 2**, 5** (same as Agriculture 901**); Microbiology 1**, 20**; Oceanography 2** or 12** (these courses are the same), 14**; Physiology 1**, 8**, 9**; Psychology 2.

LANGUAGE OTHER THAN ENGLISH (UC Requirement Only)
Proficiency equivalent to 2 years of high school foreign language study in the same language with a grade of "C" or better. At Pierce, this requirement can be satisfied by completion of level 2 in a foreign language. Choose from: French 2; Italian 2; Japanese 2; Spanish 2.

If language level 3 or higher is used to satisfy this requirement, it may not be used in Area 3 Group B: Humanities.

Courses designated with one asterisk are listed in two subject areas, but may be counted in one area only.

Indicates that UC course credit may be limited. Please see Pierce College Counseling Office for UC limit checksheet.

****Indicated course may be counted in one area only and UC course credit may be limited.***

NOTE: Underline indicates that a course is a lab course.

CSU GRADUATION REQUIREMENT IN U.S. HISTORY, CONSTITUTION and AMERICAN IDEALS (Not part of IGETC, but may be completed prior to transfer.) 2 courses, 1 from each group. 6 semester units (12 quarter units). Courses used to meet this requirement may not be used to satisfy requirements for IGETC.

Group A: Political Science 1, 30

Group B: History 11, 12, 13, 14, 41, 42, 52.

The IGETC Plan is subject to periodic revisions. Consult Counseling Office for current information.

Admission To The University Of California

1. **Without high school deficiencies**
   Even if a student is eligible from high school, it has become exceedingly difficult to transfer from a community college without having completed 60 transferable units. Students should follow the IGETC or when appropriate the UC general education pattern, and where specified, complete the prerequisites of their designated major. The minimum grade point average to be eligible is a 2.4, but many of the campus look for a much higher grade point average.
2. **With high school deficiencies**
   Applicants who were not eligible to enroll at the time of high school graduation may make themselves eligible.

   If applicants were not eligible at the time of high school graduation because of low scholarship or low scholarship and a lack of required subjects, they will become eligible with advanced standing if they have earned a 2.4 average in 60 units of college-level work transferable to the University of California and have completed one of the following options:

   Option 1: One UC Transferable course in mathematics**, English 101, and one course selected from U.S. History, a laboratory science, or a foreign language, all with grades of "C" or higher.

   The course in mathematics must assume a proficiency level equivalent to three years of high school mathematics (i.e. elementary algebra, advanced algebra, and geometry). The course may be trigonometry or a more advanced course in mathematics or statistics for which advanced algebra is a prerequisite. These mathematics courses may not be transferable. However, all of the other courses discussed above must be transferable to the University.

   Option 2: Appropriate college courses, with grades of "C" or higher, in the a-f subjects an applicant was lacking. Up to 2 units of high school work in a-f subjects** will be waived, but transfer applicants must have satisfied the freshman admission requirements in English and mathematics.**A unit is equivalent to a one-year course.

Admission To The Independent California Colleges And Universities

California's fully accredited independent colleges and universities provide a host of options at undergraduate, graduate and professional levels for students planning to continue their education beyond community college.

Admission Policies
Students who transfer to independent colleges or universities find they are given academic credit for most, if not all, of their community college studies.

Some colleges and universities stipulate a certain number of completed units before considering students eligible for transfer. Others do not and will accept students at any time. The requirements are outlined in the college catalogs, available upon request from the respective college's Office of Admissions. Many of these catalogs are available in the Pierce Career Center library. The Counseling Office has some advisement sheets available outlining the requirements for various schools including:

Art Center College of Design
California Lutheran College
Pepperdine University, L.A. and Malibu Campuses
U.S.C. - Letters and Sciences and Business Administration

Independent institutions invite you to make an appointment with their Offices of Admissions in order to discuss your transfer opportunities on a personal basis.

Requirements For Students Planning To Transfer To A Four-Year Institution

Two principal types of requirements should be met in order to attain full junior standing at the University of California or other institutions maintaining equivalent standards to which the student expects to transfer. These are:

1. The completion of the lower division prerequisites for upper division majors and minors. These vary according to the institution of higher education in which the student expects to enroll.
2. The completion of a general education pattern required by the receiving institution.
   a) The patterns for UCLA are listed later in this section.
   b) Patterns for California State Universities and Colleges are as follows:
      i) The **PIERCE COLLEGE GENERAL EDUCATION CERTIFIED PLAN** authorized by state legislation for students transferring to the California State University and Colleges is presented below. (How to meet 39 units of General Education)

Certification will be provided upon request for the student who completes all or a portion of this pattern. The State Universities and Colleges will accept this certification.

ii) Students may elect to complete the general education plan of the particular California State College or University which they plan to attend.

a. For institutions other than the above, information is available in the Counseling Office.

In addition to examining the information offered in this catalog, students expecting to transfer to four-year institutions should consult the catalog of these institutions regarding specific requirements for upper division standing and should consult a counselor. **RECOMMENDATION! If you plan to transfer to a four-year school, see a counselor each semester.**

How To Meet 39 Units Of General Education - Breadth Requirements For Students Transferring To The California State University And Colleges

Certified Plan

Students intending to transfer to the CSU system have a choice of general education plans. The IGETC plan is accepted at both CSU and UC schools. The Certified Plan is accepted only at CSU schools. Students who are certain they will transfer to a CSU school should follow the Certified Plan. Students uncertain about whether they will transfer to a CSU or a UC school, or who want to keep their options open, should follow the IGETC Plan. Transferring students may consult a counselor for further information.

All students who are currently following a CSU Certification Plan are now obligated to follow the 1993-94 Plan or subsequent plans.

CSU Certification Plans prior to Fall 1993 are no longer useable. There have been changes and additions to the Plan. This was done by the Board of Trustees to the California State University System. Courses taken on previous plans, but not found on the Fall 1993 Plan (or subsequent plans), will be honored in the category taken. To be certified, a student must comply with the new regulations/ format of the Fall 1993 Plan or subsequent plans.

The CSU system requires a minimum of 48 units of general education, 9 units of which must be completed during the last two years of studies for a baccalaureate degree. Pierce College can certify up to 39 units. Certification of these units is NOT automatic. It must be requested at the time a student completes the requirements.

Partial or complete certification must be accomplished under the following regulations and must be requested as outlined below.

a) Requests for certification should be submitted to the Graduation Office when the student is qualified to transfer to the California State University system (CSU).

b) At the time a certification request is submitted a request for a transcript must be submitted in the Graduation Office.

c) Coursework completed at other California community colleges is applied in the same area of the certified pattern in which it was used at the school where it was completed. For coursework completed at all other accredited colleges or universities, up to 18 units may be used anywhere in the certified pattern. Approval is obtained by filing a petition for "Pass-Along" certification in the Graduation Office.

d) Certification of specific areas is possible (partial certification) if all requirements of that area are met.

e) A student is eligible to be certified after completing a minimum of 12 certifiable units in the LACCD.

Courses required for the major may also be used for meeting the general education breadth requirements.

ONLY TWO COURSES in any one discipline, excluding laboratory only courses, may be used in meeting the Certified Plan requirements.

AREA "A" 9 UNITS - COMMUNICATION/CRITICAL THINKING

One course from each category.

A-1 ORAL COMMUNICATION - Speech 101

A-2 WRITTEN COMMUNICATION - English 101

A-3 CRITICAL THINKING - Philosophy 6, 7, 9, 201, English 103, Speech 104, Psychology 66.

AREA "B" 9 UNITS - PHYSICAL UNIVERSE & LIFE FORMS

One course from each category. Laboratory course is required. Lecture and lab must match.

B-1 PHYSICAL UNIVERSE

Agri 103, **Astro** 1, 2*, 3*, **Chem** 51*, 60*, 70*, 101*, 102*, 211*, 212, 221*, **Env. Sc.** 1, 7, **Geog** 1, 3, (same as Meteor 3), 9, 15*, 17* **Geology** 1, 2, 4*, 6*, 7*, 10, 11, 22, **Meterology** 3 (same as Geog 3) **Ocean** 1, 10*, **Phys. Sc.** 1, 4*, 14*, **Physics** 6*, 7*, 11*, 12, 37*, 38*, 39*.

B-2 LIFEFORMS

Agri 511, 512*, 901, 940, 950; **Anatomy** 1*; **Anthro** 101, 111*; **Biol** 3*, 6*, 7*, 10*, 11, 12, 18, 25, 39, 40; **Env. Sc.** 2; **Microbio.** 1*, 20*; **Ocean** 12, 14*; **Physiology** 1*; **Psych** 2.

B-3 LABORATORY ACTIVITY

One of the courses chosen from B-1, B-2 or B-4 must be a lab course - designated by an asterisk and must be matched with the appropriate lecture course..

B-4 MATHEMATICAL CONCEPTS

Math 215, 227, 230, 238, 239, 240, 245, 255, 260, 261, 262, **Statistics** 1.

AREA "C" 9 UNITS - ARTS, LITERATURE, PHILOSOPHY FOREIGN LANGUAGE. AT LEAST ONE COURSE FROM ARTS (C-1) AND ONE FROM HUMANITIES (C-2). THE THIRD COURSE MAY BE FROM EITHER CATEGORY.

C-1 ARTS
Art 101-103, 111, 137-139, 201, 300, 400, 500, 501, 502, 700, 706, 708, 721, 805, **Cinema** 3, 18, **Humanities** 6, 11-14, 30, 31, 60, 61, 89, **Indus. Tech.** 323, 325, **Music** 111, 112, 121, 122, 226, 241, 251, 299, 321-324, 341, 411-414, 501, 521, 561, 571, 601, 611, 621, 651, 705, 721, 731, 741, 755, 775, **Photo** 9-12, **Phys. Ed.** 802-804, 812, 814, 818, **Theater** 100, 110, 115, 125, 270, 271, 273.

C-2 HUMANITIES
Anthro 104, 121, 123; **English** 102, 127, 203-207, 208, 209, 211-216, 219, 239-241, 250, 252, 270; **French** 1-6; **History** 1, 2, 7, 77, 86, 87; **Humanities** 2, 6, 11-14, 30, 31, 60, 61, 89; **Italian** 1-6; **Japanese** 1-4, 8; **Philos** 1-4, 19, 20, 22, 24, 25, 29; **Photo** 27; **Spanish** 1-6, 12, 15, 25, 27.

AREA "D" 9 UNITS - SOCIAL, POLITICAL & ECONOMIC INSTITUTIONS

U.S. HISTORY, FED. STATE & LOCAL GOV'T REQUIREMENT. **SELECT ONE COURSE FROM A AND ONE COURSE FROM B.**

A. **HISTORY** 11, 12, 13, 14, 41, 42, 52.
B. **POL. SCI.** 1, 30.

SELECT ONE ADDITIONAL COURSE, NOT TAKEN FROM D-A or D-B ABOVE, FROM D-1 THROUGH D-0.

D-1 ANTHROPOLOGY AND ARCHAEOLOGY
Anthro 102, 103, 132, 141.

D-2 ECONOMICS
Econ 1, 2, 10.

D-3 ETHNIC STUDIES
History 43, 44, **Spanish** 10, 26

D-4 GENDER STUDIES
History 52

D-5 GEOGRAPHY
Env. Sci. 17, **Geog.** 2, 5, 7, 8, 10, 12, 14.

D-6 HISTORY
Hist 3-6, 8, 11-15, (same as Spanish 10), 27, 40-44, 50, 52, 86, 87.

D-7 INTERDISCIPLINARY SOCIAL OR BEHAVIORAL SCIENCE
Journalism 100, **Speech** 121, 122.

D-8 POLITICAL SCIENCE, GOV'T AND LEGAL INSTITUTIONS
Law 3, **Poli. Sci.** 1, 2, 7, 14, 30, 35.

D-9 PSYCHOLOGY
Psych 1, 3, 6, 11-14, 16-18, 40-42, 51, 52, 66.

D-0 SOCIOLOGY
Soc 1-3, 4, 6, 7, 10, 11, 13-15, 28.

AREA "E" 3 UNITS - LIFELONG UNDERSTANDING AND SELF DEVELOPMENT

Biology 25, 39; **Environ. Sci.** 1, 18; **Geog** 9; **Health** 9, 10, 11; **Phys. Ed.** 90, 91, activity courses (maximum of 1 unit total); **Psych** 3, 4, 18, 36, 37, 40, 41, 52, 60; **Philos** 19; Soc 17, 28, 30.

Associate Degrees with Certified Plan

Students who wish to receive an Associate Degree from Pierce College while following the Certified Plan should request evaluation according to Plan A, (see Graduation requirements in previous section) when petitioning for graduation.

Admission To California State University, Northridge

Applicants who were eligible for admission at the time of high school graduation may apply for advanced standing at the university in accordance with admission requirements in effect at the time they were graduated, if they were full-time students in an accredited college and earned at least a "C" average in college work. Those who do not complete 56 units of CSU transferable college work may be required to take the SAT or ACT entrance examination as a condition of admission. If they were not full-time college students, they may be required to meet the admission requirements applied to recent high school graduates.

Applicants who were not eligible to enroll at the time of high school graduation may make themselves eligible. In order to qualify for junior standing at California State University, Northridge, an applicant must have completed a minimum of 56 transferable units at accredited institutions with a "C" average in all work undertaken. As of Fall 1986 all students new to college must also have the equivalent of four years of high school English and two years of high school mathematics (algebra and geometry or higher).

Students intending to work for a degree at the California State University, Northridge should plan their work to meet the lower division requirements.

California State University, Northridge Lower Division Major Requirements

Lower division requirements for all majors at CSUN are available upon request in the Counseling Office.

College Of Letters And Science University Of California Los Angeles

Students who were ineligible for admission to UCLA College of Letters and Science directly from high school may become eligible by completing 60 UC transfer units with a 2.4 grade point average at Pierce and satisfying either 1) high school A-F course deficiencies with two requirements waived; (except the English and Mathematics requirements) with grades of "C" or better OR 2) completing English 101, one math course which has a prerequisite of Mathematics 125 and one United States history, foreign language, or lab science course with grades of "C" or better. *Consult with a counselor about clearing*

this requirement. A maximum of 70 units from Pierce will be accepted towards graduation from UCLA. Students are advised that the above are minimum requirements, and that entering students often have a much higher grade point average.

To obtain an Associate Degree from Pierce College as well as prepare for transfer to UCLA, see Graduation Requirements listed in previous section.

1. **General University of California Requirements**
   American-History-and-Institutions: Any course used to meet this requirement may also apply on the general college requirements listed below. This requirement may be met in one of the two following ways:
   a. Completion of two semesters in high school of American History or American Government or a combination, with a "B" average.
   b. Completion of one course chosen from the following with a grade of "C" or better: Economics 10, English 207, 208; History 5, 6, 8, 11*, 12*, 13*, 14, 15, 20, 41*, 42*; Political Science 1*.

   **These courses also meet the government requirement for the Pierce AA degree.*
2. **General Education Requirements**

   Students are encouraged to complete the IGETC.

BASIC PROFICIENCY LEVELS

ENGLISH COMPOSITION: English 101 or 102 with a grade of at least "C", or AP score of 4 or 5.

QUANTITATIVE REASONING: One course from: Computer Science 506, 513; Mathematics 227, 235, 236, 255, 261, 262, 263, 270, 275; Statistics 1; Philosophy 9 with a grade of "C" or better or Mathematics SAT score of 600 or a CEEB Mathematics score of 550. CR/NC unacceptable.

FOREIGN LANGUAGE: Prior to Fall 1989, through course 2 or above in any language; Fall 1989 and after, Language 3 or ETS (AP) score of 3 or above in French, German, or Spanish. Repetition of high school foreign language coursework will count toward the 60 units for admission to UCLA and toward the Bachelor's Degree.

GENERAL EDUCATION REQUIREMENTS

A minimum of 32 semester units must be completed. *Courses from the major department are not applicable.* Required major preparatory courses from departments other than the major may be applied. To find which grouping contains your major please check the section that follows.

PHYSICAL SCIENCES: *Three courses or eight semester units* (for Physical Science majors, only one course is required). Students are "required" to include a lab course and have at least five units in one discipline. Astronomy 1 and 2 or 3; Chemistry 51, 101, 102, or 60; Environmental Science 9 or Physical Science 5; Geography 1; Geology 1, 2, 6, 7; Mathematics 236, 255, 261-263, 270, 275; Meteorology 3 or Geography 3; Oceanography 1, 10; Physics 37, 38, 39, 6, 7, 11, 12.

LIFE SCIENCES: *Three courses or eight semester units* (for Life Science majors, only one course is required). Students are required to include a lab course. Anatomy 1; Anthropology 101; Biology 3 or 25, 6, 7, 10, 11; Environmental Science 18 or Geography 9; Microbiology 1 or 20; Oceanography 12; Physiology 1, 6; Psychology 2.

SOCIAL SCIENCES: Four courses: Two from Historical Analysis and two from Social Analysis.

Historical Analysis (Historical Analysis majors are not required to satisfy this area.) History 1-7, 11 or 41, 12 or 42, 13; History 43, 44, 86, 87, Spanish 10.

Social Analysis (Social Analysis majors are not required to satisfy this area.) Anthropology 102, 103, 112; Economics 1, 2, 10 or History 15; Geography 2; Political Science 1, 2, 7, 30; Psychology 1; Sociology 1.

HUMANITIES: Four courses: One from Literature. No more than two from any other subgroup. (Humanities majors are required to take one literature course, and one additional course, for a total of two courses). Literature majors are not required to take a literature course.

Literature: English 203-208, 211, 212, 215, 216; Theater 125 or English 213; Spanish 12, 15, 25.

Philosophy: Philosophy 2-4, 20, 22, 24, 25.

Language & Linguistics: One semester foreign language course 4 or above; Anthropology 104.

Culture & Civilization: Anthropology 123; English 250; Humanities 6, 11-14, 30, 31; Spanish 26.

Arts: Art 101, 102, 111; Cinema 3; Music 111, 112, 121, 122; Theater 110, 115.

GENERAL EDUCATION GROUPINGS BY MAJOR

(A) HUMANITIES

A1: Literature
African Languages
Arabic
Chinese
English
English/Greek
English/Latin
French
German
Greek
Hebrew
Italian (including Italian and Special Fields)
Japanese
Latin
Portuguese
Russian Language and Literature
Scandinavian Languages
Slavic Languages and Literatures
Spanish
Spanish and Portuguese

A2: Philosophy
Philosophy

A3: Language and Linguistics
French and Linguistics
Linguistics (including all Linguistics and Special Fields majors)
Spanish and Linguistics

A4: Culture and Civilization
Ancient Near Eastern Civilizations
Classical Civilization
Iranian Studies
Jewish Studies
Near Eastern Studies
Religion, Study of Russian Studies

A5: The Arts
Art History
Musicology
World Arts and Cultures

(B) PHYSICAL SCIENCES
- Applied Mathematics
- Astrophysics
- Atmospheric Sciences
- Biochemistry
- Chemistry
- Chemistry/Materials Science
- Cybernetics
- Earth Sciences
- Economics/System Science
- General Chemistry
- General Mathematics
- General Physics
- Geology (including all specialization options)
- Geochemistry
- Geophysics (including all specialization options)
- Mathematics
- Mathematics/Applied Science
- Mathematics of Computation
- Physics

(C) SOCIAL SCIENCES

C1: Historical Analysis
- History
- History/Art History

C2: Social Analysis
- Afro-American Studies
- Anthropology
- Chicano Studies
- Communication Studies
- Development Studies
- East Asian Studies
- Economics (including all specialization options except Economics/System Science)
- Geography
- Geography/Environmental Studies
- Latin American Studies
- Political Science
- Sociology
- Women's Studies

(D) LIFE SCIENCES
- Biology
- Cell and Molecular Biology
- Cognitive Science
- Microbiology and Molecular Genetics
- Neuroscience
- Physiological Science
- Psychobiology
- Psychology

Requirements for College of Letters and Science Majors

Requirements for the majors are available upon request in the Counseling Office.

School Of Engineering And Applied Science Criteria For Admission

Completion of at least 9 of the 11 required courses listed below in Chemistry, Physics and Mathematics. Chemistry 101 and 102 are not required for the Computer Engineering option.

Chemistry 101 & 102
Mathematics 261-263, 270 & 275
Physics 37-39
And completion of English 101.

The School of Engineering and Applied Science offers a Bachelor of Science degree in the following areas: Aerospace Engineering, Chemical Engineering, Civil Engineering, Computer Science and Engineering, Electrical Engineering, Engineering, Materials Engineering, and Mechanical Engineering. Students are advised to check with a counselor regarding specific requirements pertinent to their major choice and the general education requirements peculiar to engineering.

University Of California At Los Angeles School Of The Arts And Architecture

Majors: Architecture, Art, Dance, Design, Ethno-musicology, Music, and World Arts and Cultures. Call (310) 825-9708 for more information.

The department of Architecture and Urban Design offers Masters and Ph.D. degrees only. Call (310) 825-0525.

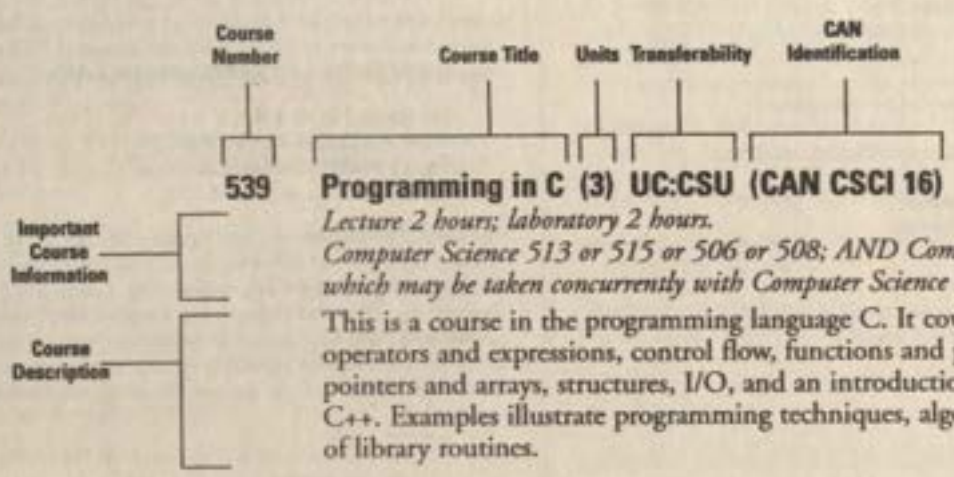
School Of Theater, Film And Television

Majors: Film and Television, and Theater
Call (310)825-5761 for more information

It is highly recommended that students follow the IGETC transfer plan for either the School of the Arts or the School of Theater, Film and Television. Please see a counselor for preparation for these majors. Admission is very selective. Students should consult with a counselor as soon as possible.

How to Read the **Course Descriptions**

SAMPLE COURSE DESCRIPTION



Key To Transfer Credit Codes

UC This course is acceptable for credit at all branches of the University of California.

†UC The granting of transfer credit by a UC campus for fieldwork or directed study courses is contingent upon a review of the course outline after transfer. A UC student must submit a petition to initiate this process.

A UC campus will accept a maximum of 3 semester units of directed study or field work in any one semester and a total of 6 units maximum in any and all appropriate subject areas combined.

For further clarification, please consult a counselor.

CSU This course is acceptable for credit at all branches of the California State University System.

NDA Non-Degree Applicable. Some courses which are offered for college credit, but which cannot be applied toward graduation requirements for the Associate Degree are designated by the code NDA. All courses which meet the major requirements of the educational programs listed in the catalog may be applied towards graduation requirements for the Associate Degree. All transfer courses may be applied to the Associate Degree.

CAN The California Articulation Number System identifies some of the transferable, lower division, introductory (preparatory) courses commonly taught on California college campuses. The system assures students that CAN courses on one participating campus will be accepted "in lieu of" the comparable CAN courses on another participating campus.

Accuracy Statement

The Los Angeles Community College District and Los Angeles Pierce College have made every effort to make this Class Schedule accurate and may, without notice, change general information, courses, or programs offered. The reasons for change may include student enrollment, level of funding, or other issues decided by the district or college. The district and college also reserve the right to add to, change, or cancel any rules, regulations, policies and procedures as provided by law.

Accounting

1 Introductory Accounting I (5) UC:CSU (CAN BUS 2)
Lecture 5 hours.
Introduces the fundamental principles and concepts of accounting as a basis for financial communication in business. Includes the study of the procedures in maintaining records of business transactions and the preparation of financial statements for the sole proprietorship service or merchandising firm. Topics in cash, receivables and temporary investments, inventories, plant assets and intangible assets, payroll, notes payable and other current liabilities, concepts and principles.

2 Introductory Accounting II (5) UC:CSU (CAN BUS 4)
Lecture 5 hours.
Prerequisite: *Accounting 1 with a grade of "C" or better.*
Continues the introductory phase of accounting. Topics in partnership formation, income division and liquidation, corporate organization and equity rights, earnings, dividends, long-term liabilities, investments in stocks and bonds, consolidated statements, international operations, statement of cash flows, financial statement analysis, annual reports, managerial accounting principles, cost systems, cost behavior, budgeting, cost-volume-profit analysis, accounting for decentralized operations, transfer pricing, differential analysis, product pricing, and capital investment analysis.

15 Tax Accounting I (3) CSU
Lecture 3 hours.
Prerequisite: *Accounting 1 with a grade of "C" or better.*
Deals with tax laws, accounting procedures, and preparation of individual Federal and California income tax returns.

17 Payroll Accounting (2)
Lecture 2 hours.
Prerequisite: *Accounting 1 with a grade of "C" or better.*
Concerns methods and procedures in accounting for payrolls and in the preparation of Federal and State payroll tax returns using up-to-date Computer Software Packages. Techniques surveyed vary from the manual to current automated payroll procedures. Also acquaints students with the various phases of the Social Security benefits and taxes and State and Federal laws relating to the payment of wages and salaries.

20 Managerial Accounting (3) CSU
Lecture 3 hours.
Prerequisite: *Accounting 1 with a grade of "C" or better.*
Covers the preparation and analysis of accounting reports and statements for the purposes of aiding management in the decision-making processes, in planning and in financial control. Emphasis is on the utilization of accounting data by business management. Includes budgeting, analysis for business finance, cost accounting analysis, source and application of funds statement, statement analysis and direct costing techniques.

21 Bookkeeping and Accounting I (3) *UC:CSU
Lecture 3 hours.
Note: *Accounting 21 and 22 are equal to Accounting 1. Credit cannot be given for Accounting 21 or 22 and Accounting 1.*
Reviews the fundamentals of bookkeeping and accounting, the accounting cycle, the journals and ledgers, the work-sheet and financial statements, and the year-end adjustments and closing entries. Problems and a practice set are integral parts of this course.

22 Bookkeeping and Accounting II (3) *UC:CSU
Lecture 3 hours.
Prerequisite: *Accounting 21.*
Note: *Accounting 21 and 22 are equal to Accounting 1. Credit cannot be given for Accounting 21 or 22 and Accounting 1.*
The voucher system; payroll accounting; accounting for notes, drafts, bad debts, inventories, cost of goods sold, fixed assets, depreciation, adjustments, and interim statements. Students complete a practice set.

Cooperative Education - Work Experience
See Business - Cooperative Education.
UC Credit Limit: *Maximum 5 units.*

Accounting - Computerized

See course listings under Office Administration.

Agriculture

General Agriculture -	**Agriculture 100-199**
Animal Health Technology -	**Agriculture 400-499**
Animal Science-	**Agriculture 500-590**
Horse Science -	**Agriculture 600-699**
Horticulture -	**Agriculture 700-899**
Natural Resources Management -	**Agriculture 900-999**

103 Introduction to Soils (3) UC:CSU
Lecture 2 hours; laboratory 2 hours.
Normally offered in the Fall semester only.
Considers the origin, formation, structure, and composition of soils. Includes the effects of tillage, drainage, and irrigation upon soil productivity. Examines the effect of laboratory and field work dealing with the maintenance and improvement of soil fertility upon various crops and farm systems. Analyzes the effect of organic and inorganic fertilizers upon soil productivity, control of soil moisture, and the problems of alkali and dry land management.

110 Food and Society (3) CSU
Lecture 3 hours.
A general education course which reviews the role and impacts of food, and food production, on the development of civilization. The biological and ecological impacts of food production will be covered as well as the economic, political, and social dimensions of modern Agri-business. World hunger and food policies will explore the future.

112 Fertilizers and Plant Nutrition (3) CSU
Lecture 2 hours; laboratory 2 hours.
Studies the formation of soils with their physical and biological properties. Gives practical applications in effectively using soil as the foundation of plant growth and in improving soils by physical soil amendments.

120 Ethical Issues of Using Animals (3) CSU
Lecture 3 hours.
Considers the ethical issues of using animals in research, education, for food production and as companions. Class discussions include the animal welfare/rights movements, the use of IACUCS, and the Animal Welfare ACT.

180 Animal Care Experience (2)
Lecture 1 hour; laboratory 2 hours.
This course is designed to provide veterinary science students with knowledge, skills, and abilities in animal care. Areas of study will include sanitation, housing, nutrition, grooming, restraint, training, and environmental enrichment requirements for both livestock and companion animals.

181 Field Work (10)
Laboratory 30 hours.
Supervised job experience extending occupational learning in the classroom at an on-the-job learning station related to the students' occupational goals.

213 Computer Applications in Agriculture (2) CSU
Lecture 1 hour; laboratory 2 hours.
Use of computer programs available for agriculture and of auxiliary equipment available at computer centers. Statistical and other computer programs applied to agriculture problems.

305 Farm Machinery (2) CSU
Lecture 1 hour; laboratory 3 hours.
Examines the structure, operation, and utilization of tillage, seeding, harvesting, pest control, and pumping equipment. Considers the construction, operation and maintenance of farm tractors and the application of electric power to agricultural needs.

309 Surveying for Agriculture and Natural Resource Management (3) CSU
Lecture 1 hour; laboratory 4 hours.
Presents principles, field practices, calculations, linear measurements, theory and adjustments of level and transits, field operations with level and transit, traverse computation, elevations and angles, plane table mapping, and earth yardage for land farming.

401 Orientation to Veterinary Science (1)
Lecture 1 hour.
Directs student exploration of Animal Health Technology and Veterinary Medicine as a career choice. Includes job tasks, job market possibilities, preview of current legislation and medical terminology.

402 Topics in Veterinary Technology (2)
Lecture 2 hours.
Prerequisite: *Agriculture 401.*
Normally offered in the Fall semester only.
Orients students into the Animal Health Technology Program. Includes medical terminology, veterinary ethics and discussion of the role of the technician in veterinary medicine.

410 Animal Nursing I (2)
Lecture 2 hours.
Prerequisite: *Approval to enter Animal Health Technology Program.*
Studies the symptoms and treatments of diseases affecting small animals, vaccination protocol, pharmacology, first aid procedures, and veterinary dentistry.

411 Animal Nursing I Laboratory (1)
Laboratory 2 hours.
Corequisite: *Agriculture 410.*
Provides for practical experience in performing specific skills involved with animal nursing.

412 Animal Nursing II (2)
Lecture 2 hours.
Prerequisite: *Agriculture 410.*
Studies emergency procedures, care of critically ill patients, and an introductory study of birds and reptiles.

413 Animal Nursing II Laboratory (1)
Laboratory 2 hours.
Corequisite: *Agriculture 412.*
Continues Animal Nursing I Laboratory in providing practical experience in performing new technical skills involved in animal nursing.

420 Clinical Procedures in Animal Care I (2)
Lecture 2 hours.
Prerequisite: *Approval to enter the Animal Health Technology Program.*
Prepares the student to perform common clinical procedures in the animal hospital or laboratory under the supervision of a veterinarian.

421 Clinical Procedures in Animal Care I Laboratory (1)
Laboratory 2 hours.
Corequisite: *Agriculture 420.*
Provides for practical experience in various clinical procedures needed by the animal health technician.

422 Clinical Procedures in Animal Care II (2)
Lecture 2 hours.
Prerequisite: *Agriculture 420 and 421.*
Prepares the student to perform additional clinical procedures with emphasis on surgery and anesthetics.

423 Clinical Procedures in Animal Care II Laboratory (1)
Laboratory 2 hours.
Corequisite: *Agriculture 422.*
Provides for practical experience in anesthesiology, surgical assistance and other aspects of clinical procedures.

430 Veterinary Clinical Pathology (2)
Lecture 2 hours.
Prerequisite: *Approval to enter Animal Health Technology program.*
Provides a comprehensive introduction to modern practical methods in veterinary clinical laboratory analysis. Includes blood, urine, feces and skin scrapings tests with emphasis on small animal species.

431 Veterinary Clinical Pathology Laboratory (1)
Laboratory 2 hours.
Corequisite: *Agriculture 430.*
Provides practical experience in per-forming various clinical analysis examinations and procedures.

435 Veterinary Radiography (2)
Lecture 2 hours.
Prerequisite: *Approval to enter the Animal Health Technology program.*
Considers radiological terms, safety, and techniques needed by the animal health technician to assist the veterinarian.

436 Veterinary Radiography Laboratory (1)
Laboratory 2 hours.
Corequisite: *Agriculture 435.*
Provides practice in radiological techniques and film developing as well as safe use of equipment.

441 Large Animal Nursing Laboratory (2) RPT 1
Laboratory 4 hours.
Prerequisite: *Approval to enter Animal Health Technology program.*
Provides hands-on practical experience in performing procedures and husbandry practices common to large and laboratory animal species. Extensive practice in handling and restraint also provided.

450 Introduction to Animal Facilitated Therapy (1)
Lecture 2 hours, field trips or labs to be announced.
The role of animals, including both large and small animal species, in animal-assisted therapy. Issues such as selection, training, care and maintenance, facilities and personnel required, as well as costs and liability issues will be discussed. The class will emphasize practical issues and hands-on experience.

460 First Aid for Companion Animals (2)
Lecture 2 hours.
Presents an overview of first aid situations and their treatments in dogs and cats, relative to animal facility employees and/or pet owners.

461 Companion Animal Management (2)
Lecture 2 hours.
Provides a fundamental understanding of the basic physical and psychological requirements of companion animals. Topics include housing, nutrition, restraint, behavior and development.

466 Avian Care and Husbandry (1)
Lecture 1 hour.

This course provides the students with information and practical training about pet birds. Topics include basic management principles such as housing and diet, common avian ailments, breeding techniques and behavior. Included will be aspects of aviary set-up and management.

470 Laboratory Animal Care (2)
Lecture 2 hours; Laboratory 1 hour.
***Prerequisite:** Approval to enter Veterinary Technology Program.*

Presents an introduction to laboratory animal care and husbandry. Topics include care and restraint of rabbits, guinea pigs, rodents and other pocket pets. Career opportunities will also be addressed.

480 Clinical Experience for Animal Technicians (3) RPT 2
Laboratory 9 hours.
***Prerequisite:** Agriculture 420 and/or Agriculture 422 with a grade of "C" or better.*
Offered every semester.

Provides an opportunity to obtain specialized experience in a veterinary clinic through an internship program. During this internship program, students will be given varied practical experience in all aspects of veterinary assistance and will be able to coordinate this experience with their classroom instruction.

489 Animal Health Technician Practicums (12)
Lecture 12 hours.
***Prerequisite:** Be a professional animal health technician.*

Designed primarily for practicing animal health technicians. Discusses selected topics of current interest. Taught in modules of one or two units.

501 Principles of Animal Science (3) UC:CSU
Lecture 3 hours.
Offered every semester.

Provides a broad perspective of livestock management problems and decisions that must be made in livestock production. Covers the following class of livestock: beef cattle, dairy cattle, sheep, swine, horses and poultry. Topics include breeds, feeding, and reproduction as well as other management activities.

505 Animal Nutrition (3) CSU
Lecture 3 hours.
Offered every semester.

Includes a general study of the constituents of feed (carbohydrates, proteins, fats, minerals, vitamins and water), their utilization by the animal body, the digestive system, the processes of digestion and assimilation of the various feed constituents. Course includes ration balancing and feed identification.

506 Urban Farm Animal Health and Nursing Techniques (2)
Lecture 1 hour; laboratory 2 hours.

Provides practical aspects of urban animal health and related care of farm livestock. Course encompasses the various preventative health programs, as well as nursing techniques for back-yard producers. Provides "hands-on" experience in performing husbandry practices common to each species.

510 Animal Health and Disease Control (3) CSU
Lecture 3 hours.
Offered every semester.

Relates the physiology of animals to animal health. Includes common animal diseases, their causes, prevention and control, the treatment of wounds and the relation of sanitation to disease prevention.

511 Anatomy and Physiology of Animals (3) CSU
Lecture 3 hours.
Offered every semester.

Provides a basic study of the facts and principles of animal life. Includes detailed reference to the anatomy and physiology of domestic animals. Comparative anatomy and physiology is included.

512 Anatomy and Physiology of Animals Laboratory (1) CSU
Laboratory 3 hours.
***Corequisite:** Agriculture 511.*

Provides practical experience discovering principles and structures associated with the anatomy and physiology of animals. Microscope work and dissection of the cat are included.

596 Agricultural Enterprise Projects (10)
Laboratory 30 hours.
***Prerequisite:** Agriculture 540.*

Involves the planning, development and completion of an individual or group animal science or crop production project under the guidance of a faculty advisor on the College farm. Usually the project will involve purchase of animals or crops, associated production costs, and eventual profit at time of sale.

601 Horse Production (3) UC:CSU
Lecture 3 hours.
Offered every Fall semester.

Examines the history of the horse, including anatomy, conformation, predisposing factors to unsoundness, selecting, housing, and use.

602 Horse Husbandry (3) CSU
Lecture 3 hours.
Offered every Spring semester.

Presents in advanced and detailed form breeding, mare and stallion selection, foaling of the mare, feeding and management of light horses, diseases, sanitation, and prevention of disease.

603 Equine Management Techniques (10)
Lecture 5 hours; laboratory 10 hours.

Practical application of the management aspects of the horse industry, including participation in the management decisions associated with the College herd and facilities.

611 Farrier Science (2)
Lecture 1 hour; laboratory 2 hours.
***Prerequisite:** Agriculture 601 and 602.*

Anatomy, physiology, and conformation of the horse's feet and legs. Basic principles of conformation and gait analysis in relation to hoof balance. Fundamentals of trimming, fitting and applying shoes.

615 Introduction to Rodeo (1)
Lecture 1 hour.

Familiarizes the student with the fundamentals of the sport of rodeo and changes occurring in the sport. Surveys the opportunities for a professional career.

616 Horse Show Activities (2) CSU RPT 3
Lecture 1 hour; laboratory 2 hours.

Introduces and familiarizes students with the development of show horses. Organization and management of horse shows. Skills required for a professional career in the field of performance horses.

617 Intercollegiate Rodeo Activities (2) CSU RPT 3
***Activity:** 10 hours.*
Offered every semester.

Trains students for competition intercollegiate rodeo. Provides intensive practice in the various intercollegiate rodeo events. Familiarizes the student with fundamental rodeo arena procedures. Develops the physical dexterity and coordination necessary for participation in the sport of rodeo at college level. Students from this course will be selected to represent Los Angeles Pierce College at intercollegiate competitions.

620 Basic Equitation (1) CSU
Lecture 1 hour.
***Corequisite:** Agriculture 621.*
Offered every semester.

Provides instruction for those interested in training to ride and handle horses. Includes grooming, saddling, bridling, parts and care of the equipment of horses, and riding techniques.

621 Horseback Riding Laboratory (1) CSU RPT 3
Laboratory 2 hours.
Prerequisite: *Agriculture 620 or con-current enrollment in Agriculture 620. Beginning, intermediate, and advanced levels offered, but not necessarily every semester.*
Fundamental class in western and English riding designed to teach horseback riding to students with varying degrees of experience.

630 Beginning Equine Training (2)
Lecture 1 hour; laboratory 2 hours.
Prerequisite: *Agriculture 601 and 602.*
Beginning equine training in the schooling and training of young horses for riding. Emphasis will be placed on controlling and conditioning the young horse in a manner safe for the student and the horse.

631 Advanced Equine Training (2)
Lecture 1 hour; laboratory 2 hours.
Prerequisite: *Agriculture 630.*
Expands the concepts learned in Agriculture 630. Emphasis will be placed on horse and rider as a team.

640 Horseshow Organization and Management (2)
Lecture 1 hour; laboratory 2 hours.
Prerequisite: *Agriculture 601.*
A comprehensive study of horseshow organization and management, with particular emphasis on accounting, insurance, labor management, marketing and advertising. Emphasizes adequate planning and preparation for success.

650 Equine Health and First Aid (2)
Lecture 1 hour; laboratory 2 hours.
Prerequisite: *Agriculture 601.*
Creates an awareness among horse owners, trainers, and stable managers of a healthy or sick animal; studies the cause and control measures which may be practiced. Helps the horse owner and the veterinary scientist communicate.

701 Retail Floral Design and Practices I (2) CSU
Lecture 1 hour; laboratory 2 hours.
Offered every semester.
Teaches students the flowers and plants in Southern California used primarily in the florist trade. Includes the use and care of equipment used in the trade and shop practice in flower care and corsage making.

702 Retail Floral Design and Practices II (2) CSU
Lecture 1 hour; laboratory 2 hours.
Prerequisite: *Agriculture 701.*
Offered every semester.
Continues Agriculture 701. As laboratory work, includes bowl arrangements for home and hospital, baby novelty arrangements, and anniversary arrangements. Studies foliage and flowering plant trimming, green planters, and the use of plastic flowers.

703 Retail Floral Design and Practices III (2) CSU
Lecture 1 hour; laboratory 2 hours.
Prerequisite: *Agriculture 702.*
Offered every semester.
Continues Agriculture 702. Studies floral designing of memorial offerings, floral sprays, set pieces such as wreaths, hearts, crosses, and blankets. Includes a study of general shop techniques. As part of the course requirements, requires students to spend some time in local floral shops.

704 Advanced Retail Floral Design and Practices (2)
Lecture 1 hour; laboratory 2 hours.
Prerequisite: *Agriculture 703.*
Offered every semester.
Presents advanced demonstration in floral arrangements for special occasions, including complete coverage of wedding bouquets and corsages, church decorations, ballroom and banquet decor.

708 Floristry Projects (6)
Laboratory 12 hours.
Offered every semester
Involves planning, developing, and completing an individual floricultural production project under the guidance of a faculty advisor, on or off the college campus.

711 Botany for Horticulture (4) UC:CSU
Lecture 3 hours; laboratory 3 hours.
Considers the fundamentals of botany, including a study of the main external parts and functions of flowering plants, the basic plant cell, composition and functions, and various specialized tissues and their functions. Discusses plant reproduction, both sexual and asexual, including the basics of plant breeding and selection of new varieties for landscape horticulture. Emphasizes recognition, proper utilization, and maintenance of ornamental plants.

712 Botany of Ornamental Plants (3)
Lecture 2 hours; laboratory 2 hours.
Emphasizes recognition, utilization and maintenance of ornamental plants. Consideration of the basic botany of plants and a comprehensive study of the morphology and anatomy of ornamental plants. Discusses growth patterns, environmental relationships and plant relationships and plant reactions to the environment.

713 Plants and Civilization (1)
Lecture 1 hour.
Emphasizes the origin of agriculture. Discusses various traditional botany crops and commercial uses of plants. Views agriculture of the future with an emphasis on agriculture continuing to meet the needs of world food production.

714 Principles of Horticulture (3) CSU
Lecture 3 hours.
Offered every Spring and Fall semesters, even years.
Concerns the maintenance work commonly done in home and estate gardens as well as parks and other public areas. Gives attention to lawn care, techniques of watering, fertilization and weed control.

715 Therapeutic Horticulture (1)
Lecture 1 hour.
Provides instruction to persons teaching horticulture to the handicapped. Discusses planning, facilities design, equipment and supplies and projects necessary. Covers instruction methods and selection of plant materials for use in instruction and for patient projects.

716 Arboriculture I (Care of Trees and Shrubs) (1)
Lecture 1 hour.
Basic methods of tree and shrub care. Selection, planting and maintenance of trees and shrubs from youth to specimen maturity. Emphasizes cultural aspects as well as selection criteria. Extensive instruction in pruning and shaping.

717 Arboriculture II (Tree Surgery) (1)
Lecture 1 hour.
Introduces tree surgery including care and maintenance of diseased trees. Diagnosing problems, treatment and surgical practices are included. Discusses micro-injection, tree inventory and tree appraisal. Emphasizes care of trees as part of the urban forest.

720 Tropical Fruits and Nuts (1)
Lecture 1 hour.
Introduces tropical horticulture. Discusses major crops such as coffee, tea, bananas, cocoa and other crops. Deals with cultural aspects, harvesting and processing of tropical crops and economic importance in world and U. S. agriculture.

721 Organic Gardening (1)
Lecture 1 hour.
Introduces natural methods of food production. Different organic gardening methods; discussion of organic types of fertilizers, composting and pest control methods; sources of natural gardening supplies and natural food cooperatives are covered.

722 Care of Horticulture Equipment I (1)
Lecture 1 hour.

Studies the selection, storage, maintenance, and care of horticultural tools and equipment with emphasis on hand operated types. Includes sources of equipment, adjustment, service, sharpening, and repair.

723 Care of Horticulture Equipment II (1)
Lecture 1 hour.
***Prerequisite:** Agriculture 722.*

Studies the selection, storage, maintenance and care of horticultural tools and equipment with emphasis on mechanized types (i. e. lawn mowers, chain saws, rototillers). Includes sources of equipment, adjustment, service, sharpening, repair and overhaul.

724 Drip Irrigation Techniques (1) CSU
Lecture 1 hour.

Studies the design, installation and maintenance of drip irrigation systems with emphasis on both theory and practical application to ornamental horticulture and food crop production.

725 Vegetable Production (1) CSU
Lecture 1 hour.

Discusses production of garden vegetables, preparation of the seed bed, planting, watering and fertilization. Pest control methods, selection of varieties and gardening equipment and tools are topics of instruction.

726 Agricultural Genetics (1) CSU
Lecture 1 hour.

Introduces the basics of plant and animal genetics. Discusses formations of hybrids and clones, gene interactions and utilizations of mutations. Prepares students for plant breeding and animal production.

727 Plant Breeding Techniques (1) CSU
Lecture 1 hour.
***Prerequisite:** Agriculture 711 or 726.*

Application of principles of plant improvement through selection, hybridization and utilization of hybrid vigor. Demonstrates breeding techniques necessary to hybridize plants.

728 Apiculture (Bee-Keeping) (1)
Lecture 1 hour.

Care and management of bees. Discusses principles of effective establishment and maintenance of apiaries. Pollination and value of bees to agriculture. Recognition and control of bee diseases. Laws and regulations pertaining to bee-keeping.

729 Viticulture Practices (3) UC:CSU
Lecture 2 hours; laboratory 2 hours.

A comprehensive study of grape growing utilizing the College plantings for field practice in planting, training and maintaining the vineyard. Varietal identification and use. Commercial production practices, mechanization and processing are covered.

730 Introduction to Enology (1) CSU
Lecture 1 hour.

History of wine and the wine production regions of the world. Emphasis on grapes and wine in California's historic Los Angeles area. Considers wine production and techniques. Theoretical aspects only. Wine not tasted or made.

731 Agricultural Measurement Techniques (1) CSU
Lecture 1 hour.

Provides instruction on methods of measuring and evaluating horticultural plantings, applications and treatments. Deals with experimental design, interpretation of results and application to horticultural and business practices.

732 Urban Farming Techniques (1) CSU
Lecture 1 hour.

Basic horticulture practices for the urban farmer. Discusses growth habits, reactions and patterns of plants. Discusses gardening in limited spaces both indoors and outdoors. Provides guidance necessary for home production of ornamental plants for both apartment dwellers and homeowners.

740 California Fruit Growing (3) CSU
Lecture 2 hours; laboratory 2 hours.

Deals with the selection and care of various fruit, nuts and berries grown in California and suitability for urban landscapes. Discusses pest control, planning, management, selection pruning, and environmental effects. Discusses both common and exotic fruits. Emphasizes uses in home landscapes.

742 Practicum in Horticulture (5) CSU
Lecture 5 hours.
See schedule of classes for specific topics.

Designed to present specific subjects to meet the needs of the horticulture industry and the community-at-large. Also meets the requirement for continuing education for various horticulture industries as dictated by the Agriculture Code of California.

756 Greenhouse Plant Production (3) CSU
Lecture 2 hours; laboratory 3 hours.

Studies the status of the flower and pot plant growing industry. Considers all types of forcing structures, including their parts, maintenance, and use. For both greenhouse and field situations, studies soil and container mixes, nutrition, light, temperature, moisture, and pest and disease problems. Identifies flowering and foliage plants in common usage, which are grown in laboratory practice. Includes field trips for observation of industry facilities, methods, and problems.

757 Plant Propagation (3) CSU
Lecture 2 hours; laboratory 3 hours.

Provides practice in plant propagation for commercial or home use. Requires students to propagate plant materials during laboratory hours. Discusses propagation methods, structures, diseases, and insect prevention and control of the plants being propagated. Provides laboratory work which includes seeding, transplanting, cutting, budding and grafting, potting and canning.

758 Nursery Practices and Management (3) CSU
Lecture 2 hours; laboratory 2 hours.

Meets the needs of students planning to enter the nursery industry or the fields of landscaping and maintenance. Includes the study of wholesale and retail nursery operations and their relationships to the homeowner and the professional landscape operator. Consists of the actual practices in running the school nursery. Includes field trips to observe commercial nurseries in operation.

759 Techniques of Greenhouse Management (3) CSU
Lecture 2 hours; laboratory 2 hours.
***Prerequisite:** Agriculture 756.*

Management of facilities, cultural operation, crop rotation, scheduling and record keeping. Provides practical experience in greenhouse management.

760 Indoor Plant Care and Maintenance I (1)
Lecture 1 hour.

Watering, fertilization, staking, pruning and planting the house plant. Discusses soil, light and humidity relationships. Discusses how and where to purchase plants.

761 Indoor Plant Care and Maintenance II (1)
Lecture 1 hour.
***Prerequisite:** Agriculture 760.*

A continuation of Agriculture 760. Discusses general plant care, pest control and troubleshooting plant problems. Instruction of the plant maintenance business to include all aspects of customer relations and plant maintenance technician operations.

762 Interior Plantscaping (1)
Lecture 1 hour.

Economic and managerial aspects of plantscaping. Introduces technical aspects of interior design and planting. Emphasis on foliage plant selection and installation and client relationships.

764 Hydroponic Techniques (1)
Lecture 1 hour.

Production of vegetables and other plants hydroponically. Discusses all aspects of hydroponic growing, including soil, fertilizers, nutrient testing, suitable plants and climatic control. Deals with various hydroponic systems and methods.

765 Greenhouse/Nursery Marketing and Sales Techniques (1)
Lecture 1 hour.

Marketing and selling plant products. Discusses aspects of wholesaling and retailing to include pricing, quality, advertising, and displays. Discusses general operations, associations and local personnel practices.

766 Garden Center Management (1)
Lecture 1 hour.

Managerial aspects of a garden center operation. Covers the particulars of establishing, designing and maintaining a garden center. Emphasizes practical functioning of such a center.

800 Plant Identification and Use I (3) UC:CSU
Lecture 2 hours; laboratory 2 hours.
***Recommended:** Agriculture 711 or Botany 1.*

Presents a general course in plant identification, including woody and non-woody kinds. Emphasizes ornamental trees, shrubs, and vines, with some attention to annuals, perennials, flowers, succulents, and grasses. Is planned chiefly for students entering the fields of nursery practices, landscaping, and maintenance.

801 Plant Identification and Use II (3) CSU
Lecture 2 hours; laboratory 2 hours.

Continues Agriculture 800, considering plants used in landscaping and nursery occupations not included in Agriculture 800. Requires a number of field trips for observation of plants and their uses.

802 Plant Identification and Use III (3) CSU
Lecture 2 hours; laboratory 2 hours.

Includes the basic botany, habits, habitats, and culture of ornamental and fruit trees. Emphasizes identification, selection, training, correct placement, planting, and all-around care of trees. Considers problems of pruning, fertilization, pests and diseases and their treatment. Uses demonstrations and field trips largely within the school facilities.

803 Native Plants for the Landscape (3) CSU
Lecture 2 hours; laboratory 2 hours.

Teaches California native plant materials suitable for landscape use. Includes some drought tolerant species as well. Emphasizes recognition, selection for specific uses, cultural requirements, and ecology.

804 Landscape Drafting and Graphics (1)
Lecture 1 hour.

Basic landscape drafting practices, lettering, line work, symbols, sheet composition and dimensioning. Provides brief introduction to landscape design.

805 Basic Planting Design (1)
Lecture 1 hour.
***Prerequisite:** Agriculture 800 and 801 and 804.*

Design and preparation of landscape planting plans. Emphasizes ecological and aesthetic considerations.

806 Landscape Planning and Design (4) *UC:CSU
Lecture 2 hours; laboratory 4 hours.

Includes the fundamental principles of landscape design, drafting, mapping techniques, basic design concepts as applied to residential and commercial developments, and practice in preparing landscape plans for small properties. Students must provide their own drawing equipment.

807 Advanced Landscape Planning and Design (4) *UC:CSU RPT 3
Lecture 2 hours; laboratory 4 hours.
***Prerequisite:** Agriculture 806.*

Continues Agriculture 806 with special emphasis on planting design oriented to commercial aspects, grading plans, construction drawings, specifications, cost estimates, and client relationships. Affords practice in solution of more difficult problems.

808 Residential Landscape Design (3) CSU
Lecture 3 hours.

Concentrates on home landscaping and the identification and selection of plant materials suitable for the average small house. Considers tree placement, lawn and ground covers, floral and shrub borders, foundation planting, the outdoor living space, play areas, and service yards. Requires students to complete a landscape plan of their choosing.

809 Planting for Garden Color (1)
Lecture 1 hour.
***Prerequisite:** Agriculture 804.*

Design, selection and plant installation methods for color in the garden. Includes use of trees, shrubs, ground covers, with emphasis on use of annuals and perennials.

810 Container Planting Design (1)
Lecture 1 hour.

Fundamentals of container gardening including selection of containers, construction of containers, and selection of appropriate plant materials.

811 Landscape Construction Design (1)
Lecture 1 hour.
***Prerequisite:** Agriculture 804.*

Design of basic garden elements (i. e. walls, overheads, pools, steps, fences, decks, and paving). Reviews construction materials and their inherent qualities. Preparation of construction drawings.

812 Landscape Installation and Maintenance I (3) CSU RPT 1
Lecture 2 hours; laboratory 2 hours.

Teaches how to install the landscape work commonly done at commercial and residential job sites. Includes sod installation; soil preparation; turf renovation, tree moving equipment; pruning and surgery; injection feeding; lawn header board construction; vertical mulching techniques; planting of shrubs, trees, flowers, and ground covers. Covers use and care of operative equipment used by landscaping and maintenance crews, rototillers, edgers, mowers, sod cutters, chainsaws, and use of instruments (transit, builders level, etc.).

813 Landscape Installation and Maintenance II (3) RPT 1
Lecture 2 hours; laboratory 2 hours.
***Prerequisite:** Agriculture 812.*

A continuation of skills and practices in the installation and maintenance of landscape projects. Emphasis will be on maintenance and business aspects.

814 Landscape Maintenance Management (3)
Lecture 2 hours; laboratory 2 hours.
***Prerequisite:** Agriculture 812.*

Organization of materials, equipment, and labor for the development of landscape maintenance projects. Emphasis given to records, bidding projects, and management procedures.

815 Blueprint Reading and Cost Estimating (2)
Lecture 1 hour; laboratory 2 hours

Interpretation of construction drawings and specifications for landscaping, to include quantity counts of material items and estimating costs of labor and materials.

816 Grading and Drainage Planning (1) CSU
Lecture 1 hour.

Proper grading and drainage methodology in the landscape construction industry. Emphasis will be given to industry standards and practices.

817 Landscape Contracting Practices (1) CSU
Lecture 1 hour.
Licensing requirements, testing procedures, and responsibilities of operating as a licensed landscape contractor.

818 Basic Construction Techniques (Landscape Construction) (3) CSU
Lecture 2 hours; laboratory 3 hours.
Note: *Due to the nature of the class, strenuous activity is necessary on occasion.*
Includes fundamental concepts, materials and methods of working with earth, wood, concrete, concrete block, brick and stone, and irrigation and drainage as they apply to construction. Includes projects, blueprint reading, budget information, use of construction equipment and instruments as related to projects. Includes operation of power equipment.

819 Advanced Construction Techniques (3)
Lecture 2 hours; laboratory 3 hours.
Prerequisite: *Agriculture 818.*
Installation of landscape projects with a minimum of instruction and supervision. Emphasis on responsibility and decision making.

820 Irrigation Design and Installation (3) CSU
Lecture 2 hours; laboratory 2 hours.
Studies the importance of irrigation to plant growth as well as the various methods of irrigation with special emphasis on sprinklers and irrigation management procedures.

821 Advanced Irrigation Design (3) CSU RPT 2
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Agriculture 820.*
Design of large irrigation system, including multisystem operation, satellite programming, loop systems, pump systems, and installation procedures

822 Turf and Ground Cover Management (3) CSU
Lecture 2 hours; laboratory 2 hours.
Studies turfgrasses, their characteristics, uses, and management. Covers soils, soil preparation, irrigation, fertilization, insects, weeds, disease, and special management factors. Requires field trips to supplement class work.

823 Advanced Turf and Ground Cover Management (3) CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Agriculture 822.*
Includes study of the following topics: equipment used with turfgrass management; soil aerification and thatch control irrigation, including drainage requirements and the use of wetting agents; sprinkler system design, checking and repair; disease, insect and weed identification and control; landscape shrubs and tree maintenance; record keeping and budgeting; personnel management and public relations.

824 Turf Equipment Use and Maintenance (1)
Lecture 1 hour.
Types of equipment used to maintain commercial turf areas (i. e. golf courses, parks, condominiums). Emphasis is on selection, operation and maintenance.

825 Estate and Grounds Care (1)
Lecture 1 hour.
Techniques of planning and controlling estate and grounds maintenance and care programs. Discusses formal gardens, hedges, screens and special pruning. Equipment maintenance and scheduling, programming and report writing are discussed.

840 Introduction to Pest Management (3) CSU
Lecture 2 hours; laboratory 2 hours.
Covers the identification and control of insect pests common to agricultural crops inclusive of ornamentals, the identification and the knowledge and control of common rodents and their effect upon agricultural production. Requires identifi-cation collection of insects by each student, and field work to supplement class and laboratory work.

841 Insect Pest Control (3)
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Agriculture 840.*
Presents detailed study of economically important insect pests destructive to plant life in Southern California. Carefully reviews life histories of pests, oriented to efficient control techniques, especially on a commercial level. Discusses the latest information on insecticides and practical field problems. Requires identification collections of insects, and field trip to supplement class work.

842 Plant Disease (3)
Lecture 2 hours; laboratory 2 hours.
Comprehensive study of the causes and effects of diseases in plants, discusses the nature of fungi, bacteria, virus and physiological plant problems and their control.

843 Weed Control (3) CSU
Lecture 2 hours; laboratory 2 hours.
Identification, life histories and controls of common, noxious and poisonous weeds; weed control methods for landscapes, nurseries, parkways and for various crops.

844 Integrated Pest Management (3) CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Agriculture 840 and 841.*
Integrated approach to plant protection utilizing all methods of pest control, selection criteria for controls accepted, problem solving and recommendation writing.

845 Biological Pest Control (1)
Lecture 1 hour.
Natural approach to pest management based on understanding agro-eco systems. Control of insects, mites and weeds using parasites and predators. Insectary operations, collection and release methods.

848 Training for Pest Control License (3)
Lecture 3 hours.
Covers the subject matter of the examination for Agricultural Pest Control Advisers License.

849 Nematode Control (1)
Lecture 1 hour.
Parasitic nematodes, their identification, classification and structure. Nematode sampling, damage, diseases and control measures.

850 Plant Growth Regulations (1) CSU
Lecture 1 hour.
Natural and synthetic substances used to control the growth of economic plants, chemical characteristics, plant responses, use and methods of application.

851 Vertebrate Pest Control (1)
Lecture 1 hour.
Vertebrate pests injurious to agricultural crops. Identification, life histories, and control methods. Covers gophers, ground squirrels, mice, rats, and others.

852 Residential Pest Control (1)
Lecture 1 hour.
Identification of and control methods for common pests found around the homestead, including indoor and outdoor pests, ornamental, fruit, and vegetable pests.

854 Pest Control Equipment (1)
Lecture 1 hour.
Pest control equipment, types, maintenance, care and sources.

896 Horticulture Projects (6) CSU
Laboratory 12 hours.
Offered every semester.
Involves planning, developing, and completing an individual horticultural production project under the guidance of a faculty advisor, on or off the college campus.

901 Natural Resources Conservation (3) *UC:CSU
Lecture 3 hours.
Same as Environmental Science 5
***Corequisite:** Agriculture 902 for all NRM majors.*
Surveys the development of the conservation ethic in the United States and abroad and human populations in relation to natural resources. Examines the ecological basis of conservation, major ecosystems, their energy flow and resource relationships. Discusses plant and animal population dynamics, pollution, and pest control. Covers current government programs, legislation, and activities of conservation organizations. Studies practical conservation procedures and research applicable to improving environmental resources including soil, water, forests, fisheries, wildlife (including endangered species), air, and open spaces.

902 Natural Resources Laboratory (1) CSU
Laboratory 2 hours.
***Corequisite:** Agriculture 901.*
Involves practical field work in the Nature Center and a study of natural plant and animal communities of California. Includes maintenance, planting pro-cedures, and conservation concepts practiced in local, state, and national parks. Field trips required.

905 Introduction to Outdoor Recreation (2) CSU
Lecture 2 hours.
Studies the development and management of rural and urban recreational enterprises. Includes a study of national and state parks, forests and historical sites. Covers practical recreational practices, including the development and operation of rural and urban picnic, swimming, boating, horseback riding, hunting preserves, and fishing waters.

906 Outdoor Recreation Management Laboratory (1) CSU
Laboratory 2 hours.
***Corequisite:** Agriculture 905.*
Involves field trips to various local agencies to observe and discuss recreational development, facilities, and people management. Includes urban, rural, and private recreation operations. Covers career and job opportunities.

920 Natural Resources Construction Techniques (2) CSU
Lecture 2 hours; laboratory 2 hours
Includes concepts of basic plumbing and working with concrete, wood, and earth as applied to wildland use and recreational facilities. Trail layout and construction, stream modification and check-dam construction included. Teaches plans, materials, and cost analysis of projects. Covers use of hand tools and power equipment. Nature Canyon and agricultural areas will be utilized for projects.

930 Maps/Aerial Photos (2) CSU
Lecture 1 hour; laboratory 2 hours.
Basic concepts and principles of resource maps and the interpretation of aerial photographs. Includes computation of land areas, soil and plant cover, and the identification of objects by symbol or image. Covers the use of these tools as applied to field work and resource management techniques.

931 Natural Resource Measurement (2) CSU
Lecture 1 hour; laboratory 2 hours.
Techniques of field data collection for the natural resources, including soil, water, plants, and animals. Covers tools, sampling techniques, data collection methods, and the organization and presentation of field data.

940 Introduction to Forest Management (2) UC:CSU
Lecture 2 hours.
Presents the history of forestry and the lumber industry, the development of the profession, forest legislation, and the forest resources, its management and utilization. Studies the various disciplines and sciences involved in forest management, forestry as related to environment and society, and explores job opportunities.

941 Forest Management Laboratory (1)
Laboratory 2 hours.
***Corequisite:** Agriculture 940*
Involves practical work, forest nursery procedures, tree identification, tree planting techniques. Also covers forest measurements and other aspects of the forest as a multiple-use resource. Field trip to selected locations. Includes career and job opportunities.

942 Urban Forestry (2)
Lecture 1 hour; laboratory 2 hours.
Studies the emerging interest in developing and managing urban forests. Includes the environmental uses and benefits of trees in the urban environment; street tree and park plantings; windbreaks and climate moderating effects. Covers the use of trees as an energy source including recycling and fuelwood concepts. Field trips required.

944 Global Forestry (2)
Lecture 2 hours.
Examines the world's forests, their extent, status, and values. Discusses the cultural and social values of forests, and their value in world economic development. Includes current issues of deforestation, global warming, and agroforestry. Covers career opportunities.

950 Introduction to Wildlife Management (2) CSU
Lecture 2 hours.
Presents the history of wildlife management and current wildlife problems, including the ecology of wildlife, migrational patterns, and population dynamics. Considers the emerging national interest in wildlife and reviews wildlife literature and careers.

951 Wildlife Management Laboratory (1)
Laboratory 2 hours.
Animal species life history study and field identification. Field trips to various wildlife management agencies and areas. Practical work in habitat analysis and improvement procedures. Career and job opportunities.

960 Wildland Fire Science (2) CSU
Lecture 2 hours.
Provides the NRM major with a fundamental knowledge of the factors affecting wildland fire prevention, fire behavior, and control techniques. Covers fire ecology, effects on other resources, and the use of prescribed fire.

961 Wildland Fire Science Laboratory (1)
Laboratory 2 hours.
***Corequisite:** Agriculture 960.*
Combines field trip and the application of wildland fire science and control procedures to the development of a fire control plan. Emphasizes the use of maps and analysis of vegetation, terrain, and land use as applied to fire protection and control.

970 Range Management (3) CSU
Lecture 2 hours; laboratory 2 hours.
Applies principles of range management to the utilization and conservation of land resources. Undertakes a study of range vegetation, soil conditions, and evaluation of livestock grazing problems and practices. Emphasizes California land conditions. Includes several field trips for observation work.

975 California Native Plants (3) CSU
Lecture 2 hours; laboratory 2 hours.
Native plants of Southern California. Emphasizes identification, plant community concepts, and native plant ecology. Covers the use of identification keys, classification concepts, and management implications of the various vegetation types. Intended primarily for NRM majors.

185 Directed Study - Agriculture (1) CSU RPT 2

285 Directed Study - Agriculture (2) CSU

385 Directed Study -Agriculture (3) CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Agriculture on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - Agriculture (1) CSU RPT 3

921 Cooperative Education - Agriculture (2) CSU RPT 3

971 Cooperative Education - Agriculture (3) CSU RPT 3

981 Cooperative Education - Agriculture (4) CSU RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals. ***Limits to transfer credits:*** *See Cooperative Education Credit Guide.*

**UC Credit Limit: Maximum of one course.*

American Sign Language/ Interpreting

1 American Sign Language I (4) UC:CSU
Lecture 4 hours.
Normally offered in the Fall semester only.
Develops basic vocabulary and grammar of American Sign Language. Emphasis is placed on receptive skills. Incorporates vital aspects of the Deaf culture and community.

2 American Sign Language II (4) UC:CSU
Lecture 4 hours.
Prerequisite: *American Sign Language 1 with a grade of "C" or better or equivalent.*
Normally offered in the Spring semester only.
Completes the study of elementary vocabulary and grammar. Increased development of inflectional and nonmanual behavior patterns. Incorporation of selected aspects of Deaf culture and community within receptive and expressive conversations.

3 American Sign Language III (4) UC:CSU
Lecture 4 hours.
Prerequisite: *American Sign Language 2 with a grade of "C" or better or equivalent.*
Suggested concurrent enrollment in American Sign Language 30.
Normally offered in the Fall semester only.
Continued development of American Sign Language grammar, with special emphasis on idiomatic constructions. Provides further development of conversational techniques focusing on expressive skills. Expanded study of Deaf cultural issues.

4 American Sign Language IV (4) UC:CSU
Lecture 4 hours.
Prerequisite: *American Sign Language 3 with a grade of "C" or better.*
Suggested concurrent enrollment in American Sign Language 31.
Normally offered in the Spring semester only.
Advanced study of American Sign Language grammar. Further development and refinement of American Sign Language skills and fluency. Accentuates aspects of Deaf culture and community through spontaneously generated conversations.

5 Introduction to Interpreting (3) CSU
Lecture 3 hours.
Prerequisite: *American Sign Language 3 with a grade of "C" or better.*
Suggested concurrent enrollment in American Sign Language 4.
Normally offered in the Spring semester only.
Surveys the basic theories, guidelines, principles, and practices of interpreting/transliterating, including an historical overview, role of the interpreter, and analysis of various sign systems.

6 Voice to Sign Interpreting I (4) CSU
Lecture 3 hours; laboratory 2 hours.
Prerequisite: *American Sign Language 4 and 5 with a grade of "C" or better.*
Suggested concurrent enrollment in American Sign Language 10.
Normally offered in the Fall semester only.
Lecture: Development of voice-to-sign interpreting/transliterating skills on a beginning level.
Laboratory: Provides the interpreter education student with "hands-on" experience in the interpreting situation. Students will have directed practice in interpreting a variety of communication settings, dialogues, narratives, and lectures.

7 Voice to Sign Interpreting II (4) CSU
Lecture 3 hours; laboratory 2 hours.
Prerequisite: *American Sign Language 6 with a grade of "C" or better.*
Suggested concurrent enrollment in American Sign Language 11.
Recommended: *English 101.*
Normally offered in the Spring semester only.
Lecture: Continues development of voice-to-sign interpreting/transliterating skills on an intermediate level.
Laboratory: Provides the interpreter education students with "hands-on" experience in the interpreting situation. Students will have directed practice in interpreting a variety of communication settings, dialogues, narratives, and lectures.

10 Sign to Voice Interpreting I (4) CSU
Lecture 3 hours; laboratory 2 hours.
Prerequisite: *American Sign Language 4 and 5 with a grade of "C" or better. Suggested concurrent enrollment in American Sign Language 6.*
Normally offered in the Fall semester only.
Lecture: Development of sign-to-voice interpreting/transliterating techniques and principles on a beginning level.
Laboratory: Provides practical application of sign-to-voice techniques and experiential development of sign-to-voice skills.

11 Sign to Voice Interpreting II (4) CSU
Lecture 3 hours; laboratory 2 hours.
Prerequisite: *American Sign Language 10 with a grade of "C" or better.*
Recommended: *Speech Communication 101.*
Suggested concurrent enrollment in American Sign Language 7.
Normally offered in the Spring semester only.
Continues development of sign-to-voice interpreting/transliterating skills on an advanced level.

12 Specialized Interpreting (3) CSU
Lecture 3 hours.
Prerequisite: *American Sign Language 6.*
Normally offered in the Spring semester only.
Develops student's knowledge in various specialized areas of interpreting, for example; educational, religious, legal, and medical.

15 Linguistics for Interpreters (3) CSU
Lecture 3 hours.
Prerequisite: *American Sign Language 2; and Anthropology 104 or Linguistics 1 or equivalent.*
Provides the student with information and research concerning the phonetic, morphological, syntactic, and semantic properties of American Sign Language. Covers neurolinguistics, psycholinguistics, and sociolinguistics, as well as comparative studies of natural signed languages.

16 Creative Signing (2) CSU
Lecture 2 hours.
Prerequisite: *American Sign Language 2.*
Suggested concurrent enrollment in American Sign Language 3.
Normally offered in the Fall semester only.
Studies techniques of facial expression, characterization, body movement, and spatialization as it relates to American Sign Language. Development of expressive sign language skills through the use of poetry, songs, and skits.

17 Ethics and Professional Standards of Interpreting (3) CSU
Lecture 3 hours.
***Prerequisite:** American Sign Language 5.*
Suggested concurrent enrollment in American Sign Language 6.
Normally offered in the Fall semester only.
Discussion and application of the Code of Ethics published by Registry of Interpreters for the Deaf. Provides experience in appropriately solving ethical problems related to the professional environment.

25 American Sign Language Laboratory (1) CSU RPT 1
Laboratory 3 hours.
***Corequisite:** American Sign Language 1.*
Provides opportunities for practical conversation on everyday topics, cultural material, and expansion of vocabulary according to student interest or need.

30 Fingerspelling I (1) CSU
Laboratory 2 hours.
***Prerequisite:** American Sign Language 1 or equivalent.*
Normally offered in the Fall semester only.
Develops skills in expressive and receptive use of the Manual Alphabet. Deals with specific individual problems and techniques for corrections.

31 Fingerspelling II (1) CSU
Laboratory 2 hours.
***Prerequisite:** American Sign Language 30 with a grade of "C" or better or equivalent.*
Normally offered in the Spring semester only.
Continued development of expressive and receptive Manual Alphabet skills.

40 Introduction to Deaf Culture (3) UC:CSU
Lecture 3 hours.
***Prerequisite:** American Sign Language 2 and suggested concurrent enrollment in American Sign Language 3.*
Normally offered in the Fall semester only.
Covers historical, philosophical, educational, psychological and social aspects of the deaf and hearing impaired. Emphasizes Deaf culture and the social processes affecting and influencing its member.

185 Directed Study - American Sign Language (1) RPT 2

285 Directed Study - American Sign Language (2)

385 Directed Study - American Sign Language (3)
Conference 1 hour per unit.
***Prerequisite:** American Sign Language 1 or equivalent.*
Allows students to pursue Directed Study in American Sign Language on a contract basis under the direction of a supervising instructor.

Anatomy

See also **Physiology**

1 Introduction to Human Anatomy (4) UC:CSU (CAN BIOL 10)
Lecture 3 hours; laboratory 3 hours.
***Prerequisite:** Biology 3 or 6 with a grade of "C" or better.*
***Note:** An anatomy and physiology requirement can also be satisfied by Physiology 8 followed by Physiology 9. (See Physiology).*
Provides a basic course in human anatomy. Includes lectures and demonstrations on human organs and organ systems. Requires each student to dissect mammalian organs that are comparable in structure to the human organs, and to work with a dissected human cadaver.

Anthropology

101 Human Biological Evolution (3) UC:CSU (CAN ANTH 2)
Lecture 3 hours.
Explores the field of Biological Anthropology emphasizing the evolution of the human species. Topics include human heredity, mechanisms of evolutionary change, human variation, and the reconstruction of human evolutionary history through examination of the fossil record and comparative studies of our closest biological relatives, the living monkeys and apes.

102 Human Ways of Life: Cultural Anthropology (3) UC:CSU (CAN ANTH 4)
Lecture 3 hours.
Presents a broad survey of human culture including the study of human society, language, religion, political and economic organization, with examples drawn from contemporary preliterate, peasant, and urban societies.

103 Archaeology: Reconstructing the Human Past (3) UC:CSU
Lecture 3 hours.
Considers Archaeology as an integral part of the larger field of Anthropology. Course deals with the methods the archaeologist uses to view the world of the past. The methods discussed illustrate the techniques used by the archaeologist to gather and interpret the data recovered from excavation.

104 Human Language and Communication (3) UC:CSU
Lecture 3 hours.
Same as Linguistics 1. Credit not given for both courses.
This introductory course in linguistics surveys the great variety of ways humans communicate, both verbally and non-verbally. Focuses on the structure, function, and history of language, with selections on the sociology and psychology of language, language learning, and the origins and evolution of language.

105 Prehistoric Peoples (3) UC:CSU
Lecture 3 hours.
A survey of world prehistory from the earliest evidence of the origin of culture to the development of urbanization. The prehistoric process and sequence for various parts of the world will be examined, including Europe, the Americas, Africa, and Asia.

111 Laboratory in Human Biological Evolution (2) UC:CSU
Lecture 1 hour; laboratory 2 hours.
***Prerequisite:** Anthropology 101, or concurrent enrollment.*
Offers laboratory exploration of selected topics in biological anthropology including genetics, human variation, the living primates, and human paleontology.

113 Field Archaeology (3) CSU RPT 1
Lecture 1 hour; laboratory 6 hours.
Normally offered in the Spring semester only.
Presents an introduction to the theory and method of field work in Archaeology. This is a class in archaeological excavation and related data gathering methods. The course emphasizes field techniques through actual student participation in excavation, survey and related field methods.

121 Anthropology of Religion, Magic, and Witchcraft (3) UC:CSU
Lecture 3 hours.
An anthropological examination of the phenomenon of religion. Emphasis will be placed upon how religion is integrated into culture. The course includes an examination of the ideas that have been developed by anthropologists about how humans relate to their notion of the supernatural.

132 North American Indians (3) UC:CSU
Lecture 3 hours.
Offers a broad survey of the American Indians living north of Mexico. Special emphasis is placed on the Indians of California. The various aboriginal groups surveyed are viewed as they existed at the time of historical contact.

141 Medical Anthropology (3) CSU
Lecture 3 hours.
By comparing a wide range of different kinds of health/healing systems in ancient as well as modern nations, this course examines how medicine reflects changing attitudes, religious beliefs, politics and technology. Practices in China, India, Egypt, Peru, Mexico, and Canada will be compared. However, focus is on the U. S., and includes current issues such as environmental and social causes of disease, rights to live/die, preventive holistic care, religious healings, genetic engineering and federally paid insurance programs.

150 Current Topics in Anthropology (3) †UC:CSU
Lecture 3 hours.
Discusses selected topics of current interest in the fields of Biological Anthropology, Cultural Anthropology, Archaeology, and Linguistics.

185 Directed Study - Anthropology (1) †UC:CSU RPT 2

285 Directed Study - Anthropology (2) †UC:CSU

385 Directed Study - Anthropology (3) †UC:CSU
Conference 1 hour per unit.
Prerequisite: *Any two of the following courses: Anthropology 101, 102, 103, 104.*
Allows students to pursue Directed Study in Anthropology on a contract basis under the direction of a supervising instructor.

Architecture

UC Credit Limit: Maximum of 17 units.

1 Introduction to Architecture (1) UC:CSU RPT 1
Lecture 1 hour.
UC Credit Limit: *Maximum one unit.*
Introductory course exploring the fields of architecture and construction technology. Students will gain an understanding of architecture and construction technology programs. Visits to architects' offices, building sites, and advanced schools of architecture.

5 Architectural Drawing I (3) CSU
Lecture 1 hour; laboratory 5 hours.
Teaches the techniques of architectural drafting, its conventions and symbols through the preparation of simple construction details and drawings. Surveys the scope and personal requirements of the architectural profession and related building trades.

6 Architectural Drawing II (3) CSU
Lecture 1 hour; laboratory 5 hours.
Prerequisite: *Architecture 5 with a grade of "C" or better.*
Develops drafting skill and fundamental understanding of building by preparing working drawings with necessary details for wood frame construction.

7 Architectural Drawing III (3) CSU
Lecture 1 hour; laboratory 5 hours.
Prerequisite: *Architecture 5 or 6.*
Offers a study of construction methods, materials, and building ordinances. Requires students to prepare detail drawings for commercial buildings in concrete and steel or similar problems.

8 Architectural Drawing IV (3) CSU
Lecture 1 hour; laboratory 5 hours.
Prerequisite: *Architecture 6 or 7.*
Offers a study of construction methods, materials, and building ordinances. Requires students to prepare design and preliminary drawings for small commercial-type building or similar problems.

9 Elements of Design Theory (4) UC:CSU
Lecture 1 hour, laboratory 5 hours.
Introduces the principles of two dimensional design common to architecture and visual arts. Integrates the theory of architectural design with historical and cultural foundations. Develops analytical skills in visual perception and critical awareness.

10 Freehand Drawing I (2) UC:CSU RPT 1
Lecture 2 hours; laboratory 2 hours.
Corequisite: *Architecture 12.*
Drawing ability as developed primarily by pencil, ink, and watercolor. Study is made of composition, form, value, and scale, and centers mainly on drawing development employing architectural forms.

12 Architectural Rendering (2) CSU
Lecture 1 hour; laboratory 3 hours.
Corequisite: *Architecture 10.*
Teaches the techniques of graphic rendering using various media. Stresses both freehand drawing and drafting board methods.

15 Applied Descriptive Geometry (2) CSU
Lecture 1 hour; laboratory 3 hours.
Same as Industrial Technology 218. Credit not given for both courses.
Prerequisite: *One semester of architecture.*
Provides training in the analysis and solution of orthographic projection problems. Emphasis is placed on solving three-dimensional space problems by exposure to and interpretation of points, lines, and planes in primary, secondary, and successive auxiliary views. Theory and practice are included that involve visualization and graphic representation of intersections, angles, parallelism, perpendicularity, and revolutions. Orthographic and pictorial abstract examples are taken from engineering disciplines related to design and industrial technology.

18 Strength of Architectural Materials I (3) CSU
Lecture 3 hours.
Includes material relative to the strength, mechanical principles and design (stresses, tension, compression, shear, and bending) of building materials, and their uses in foundations, floors, walls, columns, and roofs.

20 Methods of Construction (2) CSU
Lecture 2 hours.
Emphasizes methods of construction in wood, steel and concrete.

21 Materials of Construction (3) CSU
Lecture 3 hours.
Prerequisite: *Architecture 5 and 20.*
Studies the nature and characteristics of materials, along with their appropriate uses for given construction purposes.

22 Equipment of Buildings (3) CSU
Lecture 3 hours.
Prerequisite: *Architecture 5 and 20.*
Applies the basic principles of design, selection and operation of equipment in buildings to water, plumbing, heating, air conditioning, lighting and acoustics.

23 Construction Estimating (3) CSU
Lecture 3 hours.
Studies methods used in determining quantities and costs of labor and materials as related to construction.

30 Residential Planning (3) CSU RPT 3
Lecture 1 hour; laboratory 5 hours.
Prerequisite: *Architecture 5.*
Offers a study of the single family residence, its layout, liveability, size, orientation, cost, furnishings, equipment and decoration.

33 Basic Architectural Design I (3) UC:CSU
Lecture 1 hour; laboratory 5 hours.
Prerequisite: *Architecture 5 and 9.*
Explores the nature and limitations of materials using two-dimensional studies of form and composition in black and white and color.

34 Basic Architectural Design II (3) UC:CSU
Lecture 1 hour; laboratory 5 hours.
Prerequisite: *Architecture 9 or 33.*
Extends the theory of color and the use of various materials in three-dimensional compositions.

37 Computer Aided Design and Drafting (3)
Lecture 1 hour; laboratory 5 hours.
Prerequisite: *Architecture 5 and 6.*
An introduction to computer design and drafting for architecture. Provides a survey of current CAD systems plus hands-on experience.

41 Architectural Model Building (2) UC:CSU
Lecture 1 hour; laboratory 3 hours.
Acquaints students of architecture with the techniques and materials for constructing architectural study models.

52 Concrete Construction Design and Practice (3) CSU
Lecture 3 hours.
Offers a practical introduction to modern concrete design theory and construction practices as employed in the construction of buildings, roads, flood control works, and miscellaneous structures.

185 Directed Study - Architecture (1) CSU RPT 2

285 Directed Study -Architecture (2) CSU

385 Directed Study -Architecture (3) CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Architecture on a contract basis under the direction of a supervising instructor.

911 Cooperative Education -Architecture (1) CSU RPT 3

921 Cooperative Education -Architecture (2) CSU RPT 3

931 Cooperative Education -Architecture (3) CSU RPT 3

941 Cooperative Education -Architecture (4) CSU RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Limits to transfer credit: *See Cooperative Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

Art

101 Survey of Art History I (3) UC:CSU (CAN ART 2)
Lecture 3 hours.
A survey of architecture, sculpture, and painting from the prehistoric, ancient, classical and medieval periods.

102 Survey of Art History II (3) UC:CSU (CAN ART 4)
Lecture 3 hours.
Note: *Art 101 is not a prerequisite for 102.*
A survey of painting, sculpture, and architecture of the Western tradition from the fourteenth century to the twentieth century. Study is given to style, iconography, and the social, political, and economic context that accompanies a work of art.

103 Art Appreciation I (3) UC:CSU
Lecture 3 hours.
Furthers the understanding and appreciation of the visual arts. Recommended for the non-Art major. Recommended but not required of Art majors.

111 History of Contemporary Art (3) UC:CSU
Lecture 3 hours.
Covers major trends in art from 1900 to the present day. Works of art are presented through slide presentations, class discussion and field trips to museums, galleries and artists' studios.

132 Technical Illustration I (4)
Lecture 2 hours; laboratory 4 hours.
This course may not be offered each semester. Check your current Schedule of Classes.
Offers production illustration with particular attention to the principles of isometric drawing and includes the transposition of orthographic views to three dimensional isometric representation.

133 Technical Illustration II (4)
Lecture 2 hours; laboratory 4 hours.
Prerequisite: *Art 132.*
This course may not be offered each semester. Check your current Schedule of Classes.
Continues Technical Illustration I with extended projects, and introduces students to areas of schematics, charts and graphs, industrial posters, and various types of visual aids.

134 Production Illustration I (4) CSU RPT 4
Lecture 2 hours; laboratory 4 hours.
Prerequisite: *Art 133.*
This course may not be offered each semester. Check your current Schedule of Classes.
Further explores areas covered in Art 133. In addition applies the use of orthographics and two point perspective to the Technical field. Freehand illustration techniques are developed. Rendering methods of technical art for specialized reproduction are studied. Introduction to Apple-Macintosh computer fundamentals with basic projects in orthographic format.

135 Production Illustration II (4) CSU
Lecture 2 hours; laboratory 4 hours.
Prerequisite: *Art 134.*
This course may not be offered each semester. Check your current Schedule of Classes.
Covers advanced projects isometric, dimetric, trimetric, and perspective illustration. Expands students' knowledge of the source of technical illustration. Major illustrations are executed in the areas of exploded views, section-cuts, and art for slide and overhead transparencies. Students will create 2 and 3 dimensional drawings on state of the art Apple-Macintosh equipment.

137 Architectural History I: Prehistory to the Middle Ages
This course may not be offered each semester. Check your current Schedule of Classes.
Covers the history of architecture from prehistory to the Middle Ages. Stresses development of typology as well as an examination of the influence of social cultural, religious, political, and economic conditions that influenced changes in form and style.

138 Architectural History II: Late Middle Ages to Modern
This course may not be offered each semester. Check your current Schedule of Classes.
Covers the history of architecture from the Late Middle Ages to the modern period. Focuses on changing types, as well as on technological advancements in building materials. Literary movements as well as social, economic, religious, and political influences will be stressed.

139 Architectural History III: Modern Architecture
This course may not be offered each semester. Check your current Schedule of Classes.
Covers the modern period of architecture, examining the changing range of architectural types, the influence of Bauhaus, the theoretical school literary movements, and the sociopolitical impact on the look of buildings.

201 Drawing I (3) UC:CSU (CAN ART 8)
Lecture 2 hours; laboratory 2 hours
Involves a variety of media, emphasizing visual perception, critical analysis, art fundamental, and cultural history of drawing.

202 Drawing II (3) UC:CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Art 201.*
Extends the experiences of basic drawing with special emphasis upon pictorial organization. Stresses historical cultural evolution of drawing.

204 Life Drawing I (3) UC:CSU
Lecture 2 hours; laboratory 2 hours.
Studies construction of and composition with the human figure. Stresses critical analysis of the use of the figure in historical context.

205 Life Drawing II (3) UC:CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Art 204.*
Continuation of Life Drawing I, emphasizing figure construction and composition applying a variety of media and concepts.

206 Life Drawing III (3) UC:CSU
Prerequisite: *Art 205.*
Lecture 2 hours; laboratory 2 hours. Continuation of figure construction and composition applying a variety of media concepts.

207 Life Drawing IV (3) UC:CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Art 206.*
Continuation of figure construction and composition applying a variety of tools and techniques. Independent projects are stressed.

209 Perspective Drawing I (3) UC:CSU
Lecture 2 hours; laboratory 2 hours.
Develops the understanding and manual skills necessary in the making of drawings which accurately represent three-dimensional forms in one-, two- and three-point perspective, with multiple secondary vanishing points.

300 Introduction to Painting (3) UC:CSU (CAN ART 10)
Lecture 2 hours; laboratory 2 hours.
Stresses variety of techniques in use of medium. Emphasis on cultural history and criticism in field of painting.

301 Watercolor Painting I (3) UC:CSU
Lecture 2 hours; laboratory 2 hours.
This course may not be offered each semester. Check your current Schedule of Classes.
Offers experience in a variety of techniques. Emphasis on cultural history and criticism in field of watercolor painting.

302 Watercolor Painting II (3) UC:CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Art 301*
This course may not be offered each semester. Check your current Schedule of Classes.
Continuation of Watercolor I. Emphasis on composition through perceptual and conceptual approaches. Theory, history, and criticism in field of watercolor painting.

304 Acrylic Painting I (3) UC:CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Art 300 with a grade of "C" or better.*
Continuation of Art 300.

305 Acrylic Painting II (3) UC:CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Art 304*
Continuation of Art 304.

306 Acrylic Painting III (3) UC:CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Art 305*
Continuation of Art 305.

307 Oil Painting I (3) UC:CSU
Laboratory 6 hours.
This course may not be offered each semester. Check your current Schedule of Classes.
Stresses skills and techniques in the medium. Both traditional and contemporary approaches to ideas and materials are explored as a means of developing personal and/or professional expression.

400 Introduction to Printmaking (3) UC:CSU
Lecture 1 hour; laboratory 5 hours
This course may not be offered each semester. Check your current Schedule of Classes.
Introduces students to basic printmaking processes such as etching, silkscreen, lithography, wood block and linoleum block printing.

401 Etching I (3) UC:CSU
Lecture 1 hour; laboratory 5 hours.
This course may not be offered each semester. Check your current Schedule of Classes.
Provides instruction in traditional and contemporary forms of etching and related intaglio processes.

402 Etching II (3) UC:CSU
Prerequisite: *Art 401.*
Lecture 1 hour; laboratory 5 hours.
This course may not be offered each semester. Check your current Schedule of Classes.
Provides further exploration of etching and related intaglio processes such as embossed prints, collagraphs and engraving. Emphasizes color printing.

403 Lithography I (3) UC:CSU
Lecture 1 hour; laboratory 5 hours.
Recommended: *Art 201*
This course may not be offered each semester. Check your current Schedule of Classes.
Introduces students to traditional methods of lithography. Covers a history of prints. Integrates theory and practice in a historical foundation.

404 Lithography II (3) UC:CSU
Lecture 1 hour; laboratory 5 hours.
Prerequisite: *Art 403.*
This course may not be offered each semester. Check your current Schedule of Classes.
Continues study in lithography by introducing students to contemporary processes. Discusses marketing of prints.

405 Silkscreen Printmaking I (3) UC:CSU
Lecture 1 hour; laboratory 5 hours.
Recommended: *Art 400 and 501.*
This course may not be offered each semester. Check your current Schedule of Classes.
Introduces students to the basic silkscreen processes.

406 Silkscreen Printmaking II (3) UC:CSU
Lecture 1 hour; laboratory 5 hours.
Prerequisite: *Art 405.*
This course may not be offered each semester. Check your current Schedule of Classes.
Students further explore the possibilities of the silkscreen process, gain an enhanced critical awareness, and learn about the marketing of prints.

407 Relief Printmaking I (3) UC:CSU
Lecture 1 hour; laboratory 5 hours.
***Recommended:** Art 400.*
This course may not be offered each semester. Check your current Schedule of Classes.

Student learns traditional relief printing techniques such as wood and linoleum block printing.

408 Relief Printmaking II (3) UC:CSU
Lecture 1 hour; laboratory 5 hours.
***Prerequisite:** Art 407.*
This course may not be offered each semester. Check your current Schedule of Classes.

Introduces contemporary and experimental forms of relief printing such as collagraphs, embossed prints, plaster prints, and paper making. Further develops analytical skills and critical analysis.

500 Introduction to Design (3) UC:CSU
Lecture 2 hours; laboratory 2 hours.
Planned to satisfy the General Education Requirement in Art for non-Art majors; also recommended for Art majors.
This course may not be offered each semester. Check your current Schedule of Classes.

Provides an introduction to art. Integrates the theory of design with historical and cultural foundations. Applies basic design techniques to problems in visual perception and critical analysis.

501 Beginning Two-Dimensional Design (3) UC:CSU (CAN ART 14)
Lecture 2 hours; laboratory 2 hours.

A minimum of 5 hours per week outside preparation is required. Introduces the elements and principles of two-dimensional design common to the visual arts. Integrates the theory of design with historical and cultural foundations. Applies basic design techniques to problems in visual perception and critical analysis.

502 Beginning UC:CSU (CAN ART 16)
Lecture 2 hours; laboratory 2 hours.

Introduces the principles of three-dimensional design utilizing a variety of techniques. Integrates the theory of design with historical and cultural foundations. Develops analytical skills and critical awareness.

604 Graphic Design I (3) CSU
Lecture 2 hours; laboratory 2 hours.
Advisory Prep. Art 501

Introductory graphic design: the field, its terminology, tools and working methods. The problem/projects consist of graphic design assignments for selected media. Introduction to computer graphics on the Mac.

605 Graphic Design II (3) CSU
Lecture 2 hours; laboratory 2 hours.
Advisory Prep. Art 201
***Prerequisite:** Art 604*

A continuation of the principles of Art 604. Projects in advertising, publication design, packaging and corporate identity. Continuation of computer graphics on the Mac.

606 Graphic Design III (3) CSU
Lecture 2 hours; laboratory 2 hours.
***Prerequisite:** Art 605*

Continuation of principles of Art 605. Graphic design workshop including computer graphics. Emphasis on corporate identity (logos, letterheads and promotional communications.) Portfolio preparation and evaluation.

613 Graphic Design (3)
Lecture 2 hours; laboratory 2 hours.
***Recommended:** Art 501 and 201.*
This course may not be offered each semester. Check your current Schedule of Classes.

A course introducing visual communication with emphasis on design, layout, typography and Mac computers. Problems consist of graphic design assignments for selected media.

614 Graphic Communications I (4)
Lecture 2 hours; laboratory 4 hours.
***Recommended:** Art 501, 201, and 613.*
This course may not be offered each semester. Check your current Schedule of Classes.

Introduces visual communication with emphasis on advertising art and design. Included are principles of advertising, advertising media, layout, lettering, and the preparation of artwork for printing. Introduction to Mac computers, and graphic applications. Pagemaker, Freehand, and Photoshop.

615 Graphic Communications II (4)
Lecture 2 hours; laboratory 4 hours.
***Prerequisite:** Art 614.*
This course may not be offered each semester. Check your current Schedule of Classes.

Continues Art 614 with greater emphasis upon graphic design skills and knowledge of contemporary processes in layout, preparation of artwork, and printing processes as they relate to the work of the advertising designer. Further refining of computer skills with Pagemaker, Freehand, and Photoshop.

616 Graphic Communications III (4)
Lecture 2 hours; laboratory 4 hours.
***Prerequisite:** Art 615.*
This course may not be offered each semester. Check your current Schedule of Classes.

Continues studies in advertising, graphic design and layout, illustration, photography, and the operation of a graphic computer workstation that would be used in a job situation.

617 Graphic Communications IV (4)
Lecture 2 hours; laboratory 4 hours.
***Prerequisite:** Art 616.*

Reviews and extends the factual material and practical skills included in previous courses. Includes preparation of a portfolio of student's work for use in obtaining employment.

620 Illustration I (3) CSU
Lecture 2 hours; laboratory 2 hours.
***Prerequisite:** Art 201, 209.*

Applies basic drawing techniques and design principles to problems in advertising and editorial illustration. Students will explore a variety of media and approaches oriented to contemporary demands in the field.

621 Illustration II (3)
Lecture 2 hours; laboratory 2 hours.
***Prerequisite:** Art 620.*

Continues Art 620 with additional emphasis on the use of markers for the production of full color comprehensive drawings and illustrations. Introduces the use of computers for illustration.

622 Illustration for the Graphic Artist (3)
Lecture 2 hours; laboratory 2 hours.
***Prerequisite:** Art 621.*

Extends basic principles and practices of advertising illustration to problems in graphic design and layout. Projects include the coordination of illustration with photography and other visual media. Computers are used in preparation for camera-ready art and graphics.

700 Introduction to Sculpture (3) UC:CSU
Lecture 1 hour; laboratory 5 hours.

Provides experiences in designing and executing sculptural form; technical experiences include modeling, casting and fabricating with sculptural media. Historical and cultural antecedents are discussed with emphasis on developing sculptural awareness.

701 Sculpture I (3) UC:CSU
Lecture 1 hour; laboratory 5 hours.
***Prerequisite:** Art 700 with a grade of "C" or better.*

Continues Art 700.

702 Sculpture II (3) UC:CSU
Lecture 1 hour; laboratory 5 hours.
***Prerequisite:** Art 701 with "C" or better.*
Continuation of Art 701.

703 Sculpture III (3) UC:CSU
Lecture 1 hour; laboratory 5 hours.
***Prerequisite:** Art 702 with "C" or better.*
This course may not be offered each semester. Check your current Schedule of Classes.
Continuation of Art 702.

708 Introduction to Ceramics (3) UC:CSU (CAN ART 6)
Lecture 1 hour; laboratory 5 hours.
***Recommended:** Art 501 or 502.*
Presents basic ceramic design and construction techniques including handbuilding, wheel forming, surface enrichment, glazing, and firing. Emphasizes design and craftsmanship. Surveys the historical significance of ceramic art.

709 Ceramics I (3) UC:CSU
Lecture 1 hour; laboratory 5 hours.
***Prerequisite:** Art 708 with a grade of "C" or better.*
Continuation of Introduction to Ceramics with increasing emphasis on wheel forming, glaze formulation, and kiln management. Stresses further the concepts of design.

710 Ceramics II (3) UC:CSU
Lecture 1 hour; laboratory 5 hours.
***Prerequisite:** Art 709 with a grade of "C" or better.*
Continuation of Art 709 with emphasis on individually planned projects.

711 Ceramics III (3) UC:CSU
Lecture 1 hour; laboratory 5 hours.
***Prerequisite:** Art 710 with a grade of "C" or better.*
Continuation of Art 710 with an increased emphasis on individually planned projects.

721 Introduction to Jewelry (3) CSU
Lecture 1 hour; laboratory 5 hours.
Presents the construction and/or fabrication of jewelry as study of three-dimensional design. Introduces varied experiences in working with precious and other metals. Emphasis is on individuality, craftsmanship, and design. Historical significance of jewelry design and its traditional technique are also studied.

722 Jewelry I (3) CSU
Lecture 1 hour; laboratory 5 hours.
***Prerequisite:** Art 721 with a grade of "C" or better.*
Continues the study and construction of jewelry and metal design as well as the history of jewelry as an art form. Emphasis is upon individual awareness, expression, craftsmanship, and experimentation with three-dimensional form.

23 Jewelry II (3) CSU
Lecture 1 hour; laboratory 5 hours.
***Prerequisite:** Art 722 with a grade of "C" or better.*
Continues the exploration of various facets of functional and non-functional jewelry and metal expression. Provides experience in enameling, repousse, forming, etching, and other methods of surface decoration and metal fabrication.

724 Jewelry III (3) CSU
Lecture 1 hour; laboratory 5 hours.
***Prerequisite:** Art 723 with a grade of "C" or better.*
Continues advanced techniques and design concepts relative to jewelry fabrication and form. Encourages the use of new materials with the traditional. Provides further experience in a variety of historical and contemporary expression of jewelry forms.

185 Directed Study - Art Honors(1) †UC:CSU RPT 2

285 Directed Study - Art Honors(2) †UC:CSU

385 Directed Study - Art Honors(3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Art on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - Art (1) CSU RPT 3

921 Cooperative Education - Art (2) CSU RPT 3

931 Cooperative Education - Art (3) CSU RPT 3

941 Cooperative Education - Art (4) CSU RPT 3
***Prerequisite:** Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
***Limits to transfer credit:** See Cooperative Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

Astronomy

1 Elementary Astronomy (3) UC:CSU
Lecture 3 hours.
Astronomy 1 with 2 same as Astronomy 3
Surveys the material contents of the universe at an introductory level designed primarily for non-science majors. Emphasizes the physical principles essential to fundamental understanding in astronomy. Discusses the tools of the astronomer, stars and stellar evolution, galaxies and quasars, cosmology, the solar system, and extra-terrestrial life.

2 Elementary Astronomy Laboratory (1) UC:CSU RPT 1
Laboratory and discussion, 2 hours.
Astronomy 1 with 2 same as Astronomy 3
***Prerequisite:** Astronomy 1.*
Supplements the material of Astronomy 1. Includes use of astronomical instruments, motions of the sky, the celestial sphere, star charts, constellation study, lunar and planetary orbits, spectra of stars, and classification of galaxies. Telescopic observations will be made whenever possible and will include occasional field trips to nearby astronomy facilities.

3 Introductory Astronomy (4) UC:CSU
Lecture 3 hours; laboratory 2 hours.
Same as Astronomy 1 with 2
Combines lecture and laboratory content of Astronomy 1 and Astronomy 2. For further information see course descriptions of Astronomy 1 and Astronomy 2.

185 Directed Study - Astronomy (1) †UC:CSU RPT 2

285 Directed Study - Astronomy (2) †UC:CSU

385 Directed Study - Astronomy (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Astronomy on a contract basis under the direction of a supervising instructor.

Automotive Service Technology

1 Automotive Engines (5) CSU
Lecture 3 hours; laboratory 5 hours.
Presents a study of automotive engines. Encompasses cooling and lubricating systems. Students overhaul engines in the laboratory, including boring, pin-fitting, valve seat replacement, valve grinding, and other engine rebuilding procedures.

2 Suspension Brakes and Power Systems (5)
Lecture 3 hours; laboratory 5 hours.
Introduces wheel, brake, and suspension systems and service, including instruction on power brakes, power steering systems, and anti lock braking systems. Provides training and supervised repair on automobiles under actual shop conditions.

3 Engine Diagnosis and Tune-Up (5)
Lecture 3 hours; laboratory 5 hours.
Prerequisite: *Automotive Service Technology 4 or 14 strongly recommended.*
Emphasizes automotive engine diagnosis and tune-up problems pertaining to fuel, ignition, starting and charging systems. Shop training in ignition, emission control, and fuel systems on automobiles.

4 Starting and Charging Systems/ Automotive Electrical Circuits (5)
Lecture 3 hours; laboratory 5 hours.
Same as Automotive Service Tech-nology 14. Credit not given for both courses.
Deals with the theory and maintenance of charging and starting systems. Provides a working understanding of the electrical systems used on automotive machinery. Lab work includes repair work on starters, alternators, and trouble shooting components of the electrical system. Includes practice with the latest diagnostic equipment.

5 Standard Transmissions, Clutches, Drive Lines and Differentials (3)
Lecture 2 hours; laboratory 2 hours.
Examines manual shift type transmission including front drive transaxles. Discusses drive line problems including clutch, differential, and axle systems. Provides laboratory practice on these assemblies.

6 Automatic Transmissions (5)
Lecture 3 hours; laboratory 5 hours.
Provides lecture and laboratory work in the theory and servicing of several types of automatic transmissions currently in use.

7 Air Conditioning (3)
Lecture 2 hours; laboratory 2 hours.
Presents the latest information in air conditioning systems and servicing. Has shop practice in repair and servicing of air conditioning systems.

20 Automotive Electronic Computer Control Systems (3)
Lecture 3 hours.
Prerequisite: *Automotive Service Tech-nology 3 with a grade of "C" or better.*
The theory, operation, and repair systems of automotive engine computer systems.

21 Computer-Controlled Electronic Fuel Injection Systems (3)
Lecture 3 hours.
Prerequisite: *Automotive Service Tech-nology 20 with a grade of "C" or better.*
The theory, operation, and repair of computer controlled electronic fuel injection systems.

23 The Clean Air Car (3)
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Automotive Service Technology 3, 4, 20*, and 21* with a grade of "C" or better.*
(Class meets for a State mandated 120 hours when combined with Automotive Service Technology 20 and 21.)
May be taken concurrently with Automotive Service Technology 23.
A State of California mandated course covering operation and repair of emission systems. Upon satisfactory completion of the course, students can obtain a letter for permission to take the state licensing exam.

25 Fundamentals of Auto Mechanics (4)
Lecture 3 hours; laboratory 3 hours.
Provides a comprehensive introduction to the design, operation, and repair of various automotive systems. Emphasis is placed on owner-operator vehicle maintenance.

32 Automotive Service Technology Projects Laboratory: Chassis and Suspension Systems (1)
Laboratory 3 hours.
Prerequisite: *Automotive Service Technology 2.*
Provides increased laboratory experience in the diagnosis and repair of automotive chassis and suspension systems.

34 Automotive Service Technology Projects Laboratory: Electrical Circuits (2)
Laboratory 6 hours.
Prerequisite: *Automotive Service Technology 4.*
Provides increased laboratory experience in the diagnosis and repair of automotive electrical circuits.

36 Automotive Service Technology Projects Laboratory: Standard Transmissions, Clutches, Drive Lines and Differentials/ Air Conditioning (1)
Laboratory 3 hours.
Prerequisite: *Automotive Service Technology 5.*
Provides increased laboratory experience in the diagnosis and repair of standard transmissions, clutches, drive lines and differentials/air conditioning.

185 Directed Study - Automotive Service Technology (1) RPT 2

285 Directed Study - Automotive Service Technology (2)

385 Directed Study - Automotive Service Technology (3)
Conference 1 hour per unit.
Allows students to pursue Directed Study in Automotive Service Technology on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - Automotive Service Technology (1) RPT 3

921 Cooperative Education - Automotive Service Technology (2) RPT 3

931 Cooperative Education - Automotive Service Technology (3) RPT 3

941 Cooperative Education - Automotive Service Technology (4) RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

Biology

See also Anatomy, Microbiology, Oceanography, and Physiology.

3 Introduction to Biology (4) *UC:CSU
Lecture 3 hours; laboratory 3 hours.
Closed to students who have completed Biology 6.
This course presents a comprehensive study of the major principles of biology. It covers topics such as cell structure and physiology, bioenergetics, development, genetics, basic ecology, population biology and evolution. This course meets the general education laboratory experience requirement. This course is not intended for life science, biology, or pre-professional (medical, dental) majors.

6 General Biology I (5) UC:CSU (CAN BIOL SEQ A)
Lecture 3 hours; laboratory 6 hours.
***Prerequisite:** Chemistry 60 or 101.*
***Note:** This class meets off campus several times during the semester.*
Biology 6 represents half of a one-year course designed for Life Science majors and those preparing for careers in medicine, pharmacy, and dentistry. The lecture focuses on the fundamental processes associated with living organisms, particularly those at the cellular and molecular levels of organization. The laboratory explores the biology of plants, protists, and invertebrate animals.

7 General Biology II (5) UC:CSU (CAN BIOL SEQ A)
Lecture 3 hours; laboratory 6 hours.
***Prerequisite:** Chemistry 60 or 101.*
***Note:** Biology 6 is not a prerequisite for Biology 7.*
***Note:** This class meets off campus several times during the semester.*
Designed to complete the study of the basic principles of biology. Deals with embryology and development of vertebrates, structure and physiology of vertebrate organ systems, evolution of vertebrates. Examines populations and their relationships to biological communities.

10 Natural History I (4) UC:CSU
Lecture 3 hours; laboratory 3 hours.
***Note:** surveys of the local ecosystems are done during off-campus field trips.*
Biological principles including evolution, adaptation and scientific methods are examined using the local environment. Includes the role of climate in the distribution of plant and animal species and a systematic survey of the common local plants, invertebrates, birds and mammals.

11 Natural History II (3) **UC:CSU
Lecture 2 hours; laboratory 2 hours.
***Note:** This course is taught in 1-unit modules. No credit for repeated modules.*
Deals with the biology of the environment and the interrelationship of climate, animals, plants, and humans. Course will include an in-depth ecological and systematic survey of a few selected ecosystems of the world.

12 Natural History and Field Biology I (3) **UC:CSU
Lecture 2 hours; laboratory 2 hours.
***Note:** This course is taught in 1-unit modules. No credit for repeated modules.*
Deals with the biology of the environment and the interrelationship of climate, animals, plants, and humans. Course will include an in-depth ecological and systematic survey of a few selected ecosystems of the world.

18 Natural History and Field Biology II (3) **UC:CSU
Lecture 2 hours; laboratory 2 hours.
***Note:** This course is taught in 1-unit modules. No credit for repeated modules.*
Deals with the biology of the environment and the interrelationship of climate, animals, plants, and humans. Course will include an in-depth ecological and systematic survey of a few selected ecosystems of the world.

25 Human Biology (3) *UC:CSU
Lecture 3 hours.
Closed to students who have completed Biology 6.
Examines the biology of Homo sapiens including its origin, development and future on earth. Contemporary concepts such as genetics, embryology, contraception and environmental problems are examined with Homo sapiens as the focal point. This course is not intended for Life Science majors.

39 Sexually Transmitted Diseases (3) UC:CSU
Lecture 3 hours.
This course presents a broad overview of the nature and causes of the sexually transmitted diseases, and approaches to prevention and control. This course also explores issues raised by these diseases in fields of law, public health, economics and research.

40 The Science of Biotechnology (3) UC:CSU
Lecture 2 hours; laboratory 2 hours.
***Prerequisite:** Biology 6 and Chemistry 101.*
This course provides a comprehensive introduction to the science of biotechnology by providing both the theory and hands-on experience with laboratory protocols that parallel the isolation, purification, and cloning of a gene.

185 Directed Study - Biology (1) †UC:CSU RPT 2

285 Directed Study - Biology (2) †UC:CSU

385 Directed Study - Biology (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Biology on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - Biology (1) CSU RPT 3

921 Cooperative Education - Biology (2) CSU RPT 3

931 Cooperative Education - Biology (3) CSU RPT 3

941 Cooperative Education - Biology (4) CSU RPT 3
***Prerequisite:** Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
***Limits to transfer credit:** See Cooperative Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

**UC Credit Limit:* Maximum one course.
***UC Credit Limit:* Maximum 3 units needed to transfer.

Business Administration

Business Administration courses are listed separately under the following headings:

Accounting
Business
Escrow
International Business
Management
Marketing
Real Estate
Supervision

Business

1 Introduction to Business (3) UC:CSU
Lecture 3 hours.
Designed to introduce or review the basic areas of any business or organization. Topics covered include: Accounting, International Business, Finance, Marketing, Management, Business Law, Business Organization, and Careers.

5 Business Law I (3) *UC:CSU (CAN BUS 8)
Lecture 3 hours.
Includes a general overview of law and society and specifically the law of contracts, personal property and bailments, consumer protection, real property and the environment, estates and wills. Gives attention to logical reasoning and the application of rules of law to everyday business activities.

6 Business Law II (3) *UC:CSU
Lecture 3 hours.
Includes the study of agency and employ-ment, sales, insurance, partnerships, corporations, commercial paper, bankruptcy, and the inter-relationship of government and business. Discusses cases stressing the application of the principles of law in the above-named fields in order to apply the rules to everyday business activities.

185 Directed Study - Business (1) CSU RPT 2

285 Directed Study - Business (2) CSU

385 Directed Study - Business (3) CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Business on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - Business (1) CSU RPT 3

921 Cooperative Education - Business (2) CSU RPT 3

931 Cooperative Education - Business (3) CSU RPT 3

941 Cooperative Education - Business (4) CSU RPT 3
***Prerequisite:** Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
***Limits to transfer credit:** See Cooperative Education Credits Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

**UC Credit Limit: Maximum one course.*

Business Communications

See course listings under Office Administration

Business Computer Applications

See course listings under **Office Administration**

Business Education

See course listings under **Office Administration**

Business English

See course listings under **Office Administration**

Cabinetmaking

See course listings under **Industrial Technology-Woodworking**

Chemistry

Students whose native language is other than English must qualify for or be enrolled in ESL 86 before enrolling in all Chemistry laboratory courses. Knowledge of and functional capability in written and spoken English are a determinant not only of a student's ability to profit from instruction offered, but also the safe and successful completion of chemistry laboratory courses.

45 Human and Environmental Chemistry (3) CSU
Lecture 3 hours.
Formerly Chemistry 24
Prerequisite: *None*

Designed for nonscience majors. Examines basic principles, applications to health and daily life, and societal, economic and environmental implications of chemistry. Covers such topics as nutrition, food additives, medicines, drugs, ozone hole, greenhouse effect, energy alternatives, pollution, household chemicals.

51 Fundamentals of Chemistry I (5) *†UC:CSU (CAN CHEM 6)
Lecture 4 hours; laboratory 3 hours.
Formerly Chemistry 3
Prerequisite: *Mathematics 115 or one year of high school algebra.*
Recommendations: *Eligibility for English 28.*

Provides a basic introduction to chemistry for the student with no previous background in chemistry. Emphasizes the principles of inorganic chemistry and provides an introduction to elementary organic chemistry. It is intended for nursing, home economics, physical therapy, elementary education, animal health technology, terminal 2-year agriculture, and liberal arts students who need a one semester physical science laboratory course. For many students it is a terminal course in chemistry, but it serves also as the most appropriate prerequisite to Chemistry 70. It is not intended for students planning to take Chemistry 101.

60 Introduction to General Chemistry (5) *†UC:CSU
Lecture 3 hours; laboratory 4 hours.
Formerly Chemistry 10
Prerequisite: *A minimum of 1 year of high school algebra or Mathematics 115 with a grade of "C" or better.*
Recommendation: *Eligibility for English 28.*

Presents the elementary principles of general chemistry with special emphasis on problem solving and the development of a basic chemical vocabulary. It is an introductory course for science majors who have not taken high school chemistry or who need a refresher course. This course serves to prepare students for Chemistry 101.

70 Introductory Organic and Biochemistry (4) **UC:CSU
Lecture 3 hours; laboratory 3 hours.
Formerly Chemistry 9
Prerequisite: *Chemistry 51 or 60 with a grade of "C" or better.*

Introduces the student to the essential principles of organic chemistry, the chemistry of biological molecules, and the functioning of biological systems. It is especially suited to the needs of students majoring in nursing, home economics, physical therapy, and other health-related fields.

101 General Chemistry I (5) UC:CSU (CAN CHEM 2)
Formerly Chemistry 1
Lecture 3 hours; laboratory and discussion 6 hours.
Prerequisite:
1. Chemistry 60 or equivalent with a grade of "C" or better.
2. Two years of high school algebra, or completion of Mathematics 125, or its equivalent.

Deals with the principles and laws of chemistry as related to the structure of matter. Topics covered include a comparison of the states of matter; atomic structure and the periodic table; stoichiometry; thermochemistry and introductory thermodynamics; chemical bonding; solutions; solubility; acids and bases; introductory chemical equilibrium; oxidation-reduction; and phase changes.

CHEMISTRY 101 READINESS TEST

The Chemistry 101 readiness test is necessary for students who wish to enroll in Chemistry 101 as their first course in Chemistry at Pierce College. Results from the test will be used to advise and assist students in enrolling in a class where they are most likely to succeed. The prerequisites for Chemistry 101 are not waived on the basis of any assessment test scores. Students without the appropriate prerequisites seeking authorization to enroll in Chemistry 101 must meet with the Department Chair. Students who wish to enroll in Chemistry 40, 51, or 60 do not need to take this test. For an appointment and information sheet contact the Assessment Center. Phone: 719-6499.

102 General Chemistry II (5) UC:CSU (CAN CHEM 4)
Lecture 3 hours; laboratory and discussion 6 hours.
Formerly Chemistry 2
Prerequisite: *Chemistry 101 or its equivalent with a grade of "C" or better.*

A continuation of Chemistry 101. Topics covered include a detailed study of chemical equilibrium as applied to analytical chemistry including solubility, complex ion, and redox equilibria, pH, buffers, weak acids, weak bases, monoprotic and polyprotic systems; thermodynamics; electrochemistry; the solid state; the relationship between structure and properties; kinetics; coordination chemistry including introduction to M. O. and ligand field theory; visible spectroscopy; and the chemistry of selected metals and nonmetals.

211 Organic Chemistry for Science Majors I (5) **UC:CSU
Lecture 3 hours; laboratory 6 hours.
Formerly Chemistry 14
Prerequisite: *Chemistry 102 or its equivalent with a grade of "C" or better.*

Introduces the student to the structure, nomenclature and properties of organic compounds as well as the mechanisms of organic reactions and syntheses. Laboratory deals with the techniques of preparation, isolation, and analysis of organic compounds employing modern instrumental methods.

212 Organic Chemistry for Science Majors II (5) **UC:CSU
Lecture 3 hours; laboratory 6 hours.
Prerequisite: *Chemistry 211 or its equivalent with a grade of "C" or better.*

This course will complete the study begun in Chemistry 211 of the organic functional groups of aldehydes, ketones, carboxylic acids and amines. It will also cover more specialized topics including the following: amino acids and peptides, mass spectrometry, difunctional compounds, polycyclic benzoid hydrocarbons, heterocyclic compounds, the organic chemistry of silicon, NMR techniques and strategies in modern organic synthesis. A mechanistic approach to reactions and a focus on multistep synthesis will be emphasized throughout the course.

221 Biochemistry for Science Majors (5) **UC:CSU
Lecture 3 hours; laboratory 6 hours.
Formerly Chemistry 15
Prerequisite: *Chemistry 211 or its equivalent with a grade of "C" or better.*
Normally offered in the Spring semester only.

This course is intended as a preparation for careers in the physical and biological sciences, medical and dental professions, veterinary and agricultural science, nutrition and food chemistry, and related fields. Its objective is twofold. The first is to complete the study begun in Chemistry 211 of the organic function groups of aldehydes, ketones, enolates, carboxylic acids and their derivatives, and amines and their derivatives. The second is to provide a thorough introduction to the principles, concepts and terminology of biochemistry, with an emphasis on amino acids, proteins, enzymes and intermediary metabolism. Laboratory deals with introductory biochemical techniques including spectroscopy, dipeptide analysis, protein purification, enzyme assays and various types of chromatography.

185 Directed Study - Chemistry (1) †UC:CSU RPT 2

285 Directed Study - Chemistry (2) †UC:CSU

385 Directed Study - Chemistry (3) †UC:CSU
Conference 1 hour per unit.

Allows students to pursue Directed Study in Chemistry on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - Chemistry (1) CSU RPT 3

921 Cooperative Education - Chemistry (2) CSU RPT 3

931 Cooperative Education - Chemistry (3) CSU RPT 3

941 Cooperative Education - Chemistry (4) CSU RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Limits to transfer credit: *See Cooperative Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

**UC Credit Limit: Maximum one course.*
***UC Credit Limit: Maximum two courses.*
^No credit if taken after Chemistry 101.

Child Development

1 Child Growth and Development (3) UC:CSU
Lecture 3 hours.
This course studies human development from conception through pregnancy, infancy, childhood and adolescence. Particular emphasis is placed on the process and theories through which a human being reaches physical, social, psychological and mental maturity.

2 Early Childhood Principles and Programs (3) CSU
Lecture 3 hours.
A survey of Early Childhood Programs including philosophies and components of a quality program. Developmentally appropriate practices will be discussed in depth. The role of the teacher will be emphasized in relation to attitudes, goals, values and the total development of the child.

3 Creative Activities for Children I (3) CSU
Lecture 3 hours.
In this class, the student will develop and implement a creative curriculum for young children in the areas of dramatic play, music/movement, blocks and art. Emphasis will be on environments that enhance creativity and diversity.

11 Home, School and Community Relations (3) CSU
Lecture 3 hours
A comprehensive study of the primary socializing agents in a young child's life. It will take an in-depth look at the family and it's interrelationships with the child, school, peers and community. All agencies will be studied within a multi-cultural context.

Cinema

3 History of Motion Pictures and Television (3) UC:CSU
Lecture 2 hours; laboratory 2 hours.
Examines television and film as communicative art forms. Analyzes representative films and television programs as to formats, aesthetics, societal impact, and evolution as entertainment media.

18 Main Currents in Motion Pictures (3) UC:CSU
Lecture 3 hours.
Presents a survey of feature film trends since World War II, utilizing a thematic approach which analyzes motion pictures as they reflect changing social values. Representative films are shown.

Computer Office Applications

See course listings under **Office Administration**

Computer Science And Information Technology

501 Introduction to Computers and Their Uses (3) UC:CSU
Lecture 3 hours.
An introduction to the uses, concepts, techniques, and terminology of computing. Places the possibilities and problems of computer use in historical, economic, and social contexts. Shows how computers can assist in a wide range of personal, commercial, and organizational activities. Provides familiarization with typical computer applications, which include word processor, spreadsheets, and databases. Included is the historical development of the internet and its methods and procedures.

506 Introduction to Programming (3) *UC:CSU (CAN CSCI 12)
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Mathematics 115 or 119 or one year of high school algebra and Computer Science 507 with a grade of "C" or better. Computer Science 507 may be taken concurrently.*
Introduction to computers and computer programming using PASCAL. Program structure, design, testing, and debugging are explored in a hands-on environment. Topics included are selection, repetition, data types, arrays, functions, procedures and file I/O.

507 Programming Logic (3) UC:CSU
Lecture 3 hours.
Prerequisite: *Mathematics 115 or 119 or one year of high school algebra with a grade of "C" or better.*
Recommended: *Concurrent enrollment in Computer Science 506.*
This course introduces the concepts necessary to successfully design, test and document computer programs using top-down, structured programming techniques. Topics included are: data types, data structures, control structures, algorithm and subalgorithm structures and parameter passing methods, and file interactive input/output. This class is intended as a machine and language independent first course in computer science logic. It is required of all computer science majors and desirable for all students wishing to study programming. A high level language such as PASCAL should be taken concurrently.

508 Visual BASIC (3) *UC:CSU (CAN CSCI 6)
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Computer Science (507 or 575) and 530 with grades of "C" or better.*

Introduces the programming language Visual BASIC as the host language to learn beginning to advanced structured programming concepts and techniques. Students are presented explicit instruction in structured programming principles, top-down design and modular programming methods, program debugging, testing, implementation and documentation procedures. Topics include data types, array and string structures, decision and repetition control structures, sequential and random file processing operations. Appropriate applications will be supplied to students as examples and exercises.

515 Beginning COBOL Programming (3) *UC:CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Computer Science 501 and 507 and one programming class from Computer Science 506, 508, 513, 516; with a grade of "C" or better.*

Presents COBOL (Common Business Oriented Language), a language which facilitates the programming of business applications on computers. Students will learn to program in structured COBOL. Includes hands-on programming in an interactive environment.

516 Beginning Mainframe Assembly Language and Architecture(3) *UC:CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *(Computer Science 507 and one programming class from Computer Science 506 or 513, with a grade of "C" or better), or CoSci 575.*

Computer architecture. Information representation and storage organization in computer systems. Computer hardware components. Typical computer architectures. Instruction formats, addressing modes, subprograms, parameter passing, stacks, and the instruction execution cycle. Assembly language instruction formats. Compiler translation to assembly language. Optimizing compilers. Disassemblers. Loaders and simulators. System interrupts. Memory allocation process with virtual memory. Boolean algebra and logic gates. Combinational logic and sequential devices.

530 Microcomputer Application Software (3) CSU
Lecture 2 hours; laboratory 2 hours.

A survey of business application software packages including operating systems, word processing, spreadsheets, and database management. Examples include common business applications. Current software includes Windows, Word, Excel, and Access.

532 Introduction to Databases (3) CSU
Lecture 3 hours.
Prerequisite: *Computer Science 536 with a grade of "C" or better.*

The organization of large files and databases is discussed. File structures are reviewed and analyzed. Sequential file updating, sorting and merging techniques are reviewed. Direct file processing using hashing methods are discussed. Indexed file processing with static and dynamic indexes are explored and multikey implementations are reviewed. The normalization process is defined.

533 Microcomputer Databases (3) CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Computer Science 530 with a grade of "C" or better.*

This course focuses on relational database management systems widely used by business to manage and use information for decision making. Uses Microsoft Office to present product integration.

534 Operating Systems (3)*UC:CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Computer Science 572 with a grade of "C" or better.*

The primary issues surrounding UNIX system administration are the focus of this course. An introduction to operating system concepts, structure, functions, performance and management is presented using the UNIX operating system. Review of computer hardware, software and operating system principles are also presented. The structure and command language interfaces are identified and discussed. Process control and management, scheduling methods, and interprocess communication techniques are studied. Memory management requirements and strategies are reviewed and allocation/scheduling algorithms are examined. System reliability, security, management and performance analysis are examined. Aspects of UNIX networking are also discussed.

535 Job Control Language and File Systems (3) CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Computer Science 513 or 515, either of which may be taken concurrently.*

The concepts and usage of data storage systems, data representations, and methods of organizing, accessing, sorting and searching data are introduced and discussed. File systems architecture, organization, operations and processing are reviewed. Applications of these systems are highlighted and discussed. The operating systems activities that support file systems are reviewed. Language translator software is identified and explored. The use of job control languages for operating systems communication and program utilities for file operations are discussed and utilized through lab assignments.

536 Introduction to Data Structures (3) *UC:CSU
Lecture 2 hours; laboratory 2 hours.
Computer Science 539

Introduction to data structures and their applications. The role of the abstract data type in programming design. The definition, implementation, and application of data structures: stacks, queues, linked lists, trees and graphs. Recursion. A comparative study of sorting and searching algorithms. Evaluation of algorithms using time complexity expressions.

539 Programming in C (3) *UC:CSU (CAN CSCI 16)
Lecture 2 hours; laboratory 2 hours.
Computer Science 513 or 515 or 506 or 508; AND Computer Science 507 which may be taken concurrently with Computer Science 539, or CoSci 575.

This is a course in the programming language C. It covers data types, operators and expressions, control flow, functions and program structure, pointers and arrays, structures, I/O, and an introduction to procedural C++. Examples illustrate programming techniques, algorithms, and the use of library routines.

540 Programming in C++ (3) UC:CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Computer Science 539 with a grade of "C" or better.*

Object-oriented programming method-ology such as encapsulation, message pas-sing, data hiding, inheritance and poly-morphism are introduced. C++ features include classes, constructors, destructors, friends, derived classes, virtual functions and operator overloading are studied and implemented with lab projects.

541 Advanced Database Programming For Windows (3) CSU
Lecture 2 hours; laboratory 2 hours.
Suggested: *Computer Science 533 and Computer Science 506 or 507.*

Advanced programming on microcomputers for database applications in a Windows environment. Includes input/output for reports and screens, menus and dialog boxes, OLE, and building complete applications.

545 Advanced COBOL Programming (3) *UC:CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Computer Science 515 with a grade of "C" or better.*

Presents a second course in COBOL programming concepts and file handling techniques. Includes tables, string handling, SORT and ISAM/VSAM files. Includes hands-on programming in an interactive environment.

546 Advanced Mainframe Assembly Language And Architecture (3) *UC:CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Computer Science 516 and 536 both with a grade of "C" or better.*

Introduction to the concept of multilevel machines. Several computer architectures are compared and evaluated. The digital logic level is discussed, system bus and memory organizations are reviewed. Microarchitecture chips and busses are evaluated. Microcode is defined and microprograms are analyzed. Conventional instructions for processor families are identified. Instruction formats and addressing modes are examined in depth. CISC, RISC and parallel processing architectures are discussed. The assembly language process, macro facility, linking/loading, and simulated execution is performed as a lab exercise.

551 Introduction to the Internet and the World Wide Web (1) CSU
A hands-on survey of the Internet, E-mail, information retrieval, interest groups, the World Wide Web, browsing the Web, introduction to Web publishing and the Hyper Text Markup Language (HTML).

570 Computer Fundamentals (3)
Lecture 2 hours; laboratory 3 hours.
Prerequisite: *One year of high school algebra or Mathematics 115 with a grade of "C" or better.*
Provides the foundation in the design of the electronic elements which are the basis of digital computers. DC and AC circuits; resistors, capacitors, diodes, transistors, basic amplifiers. Digital logic; gates, Boolean algebra, combinational circuits, Karnaugh maps, sequential logic, flip-flops, registers, counters, memories. The course stresses hands-on experiments and the use of test instrumentation.

572 Computer Systems and Networks I (3) CSU
Lecture 2 hours; laboratory 2 hours.
Introduces students to computer hardware, PC operating system, and network basics. A current operating system is studied in depth throughout the semester. Hardware topics range from floppy disks and drives, hard disks and controller cards, memory and memory management, expansion cards and busses (ISA, EISA, Micro-channel, Local Bus, PCI), input and out-put devices, and network hardware and software. Laboratory experiences include in depth operating system exercises, system configuration and documentation, partitioning and creating logical drives on the hard disk, and examining disk structure using a utility program (such as Norton Utilities).

575 Programming Concepts for Computer Technicians (4) CSU
Lecture 3 hours; laboratory 2 hours.
The fundamentals of programming for personnel involved in the design and maintenance of computer hardware. A High Order Language, such as BASIC is used to develop a variety of applications including technical and diagnostic programs. All aspects of the software development cycle (design, code, test, and debugging), as well as good programming practices such as top-down and modular design are stressed.

576 Local Area Network Management (3) CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Computer Science 572.*
This course provides the knowledge and skills required for network administration and system management. Topics include: planning, accessing and managing network file systems; system data and file security; server concepts, management and support; server maintenance and performance management.

578 Microcomputers Architecture (3) CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Computer Science 570 and 575 with a grade of "C" or better.*
This course covers in depth the architecture and programming of 8- and 16-bit microprocessors using assembly and machine languages. Control, data, and address busses are examined. Hands-on experiments include interfacing microprocessors to both digital and analog devices.

579 Wide Area Network Management (3) CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Computer Science 572.*
This course provides the knowledge and skills required in the global connectivity of networks. Topics include: managing the network directory services; network file and data security; user automation; network auditing; network maintenance and performance optimization.

581 Computer Systems and Networks Repair (4) CSU
Lecture 2 hours; laboratory 4 hours.
Prerequisite: *Computer Science 572 with a grade of "C" or better.*
The objective of this course is to teach the maintenance and repair of microcomputer systems and networks to the level required of a one-year certificate graduate. Topics will include software and hardware installation, maintenance and repair of floppy disks, printers, memory expanders, graphic terminals and network functional blocks and their various adapters. Manufacturers' manuals and diagnostic software are used for numerous service calls of increasing complexity involving electronics and mechanical failures and adjustments.

586 Computer Network Service and Support(4) CSU
Lecture 2 hours; laboratory 4 hours.
Prerequisite: *Computer Science 576 or 579, and 581 with a grade of "C" or better.*
A hands-on course intended to prepare students to service and support computers, peripherals and network systems. All aspects of equipment (both hardware and software) are introduced. Tasks include installations, upgrades and trouble-shooting of storage devices, application and system software, network hardware, microcomputer devices, printers and communication devices and software.

587 Introduction to Local Area Networks (3) CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Computer Science 572.*
Network terminology, topology, protocols, standards and concepts are discussed. Local and wide-area networks are analyzed. Lab activities are concerned with an examination of existing LAN/WAN hardware and software, internet browsers, and the use of HTML to develop a Web page.

588 Computer Projects (2) CSU
Lecture 1 hour; laboratory 3 hours.
Prerequisite: *Computer Science 577 and 578 with a grade of "C" or better.*
Requires the student, after consultation with the instructor, to design, build, evaluate and document a project involving digital electronics. Professional approaches toward funding a real project as either an employee or contractor are discussed along with cost estimating, scheduling and documenting.

589 Introduction to Data Communications (3) CSU
Lecture 2 hours; laboratory 2 hours.
Prerequisite: *Computer Science 572 with a grade of "C" or better.*
Studies the different techniques used to achieve the transfer of data between two devices. The course covers interface protocols, error detection and correction and the OSI international standard protocols.

185 Directed Study - Computer Science Information Technology (1) UC:CSU RPT 2

285 Directed Study - Computer Science Information Technology (2) UC:CSU

385 Directed Study - Computer Science Information Technology (3) UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Computer Science on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - Computer Science Information Technology (1) CSU RPT 3

921 Cooperative Education - Computer Science Information Technology (2) CSU RPT 3

931 Cooperative Education - Computer Science Information Technology (3) CSU RPT 3

941 Cooperative Education - Computer Science Information Technology (4) CSU RPT 3
Prerequisite: Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.
Limits to transfer credit: *See Cooperative Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

**UC Credit Limit: Maximum six courses.*

Cooperative Work Experience Education

The following courses provide Cooperative Work Experience Education credit. See Cooperative Work Experience Education in the Education Programs section of this catalog.

Cooperative Work Experience Education - Occupational

Cooperative Work Experience Education is offered in the subjects listed below. Please see 911-941 under the appropriate subject heading.

Agriculture	Journalism
Architecture	Music
Art	Nursing
Automotive Service	Office Administration
Biology	Photography
Business	Physical Education
Chemistry	Physics
Computer Science	Political Science
Economics	Psychology
Education	Recreation
Electronics	Sociology
English	Speech Communication
Health	Technology
Industrial Technology-General	Theater

Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Work Experience Education Advisor.*
Limits to transfer credit: *See Cooperative Work Experience Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's education goals.

Cooperative Work Experience Education - General

195 Work Experience - General I (1) RPT 1

295 Work Experience - General I (2) RPT 1

395 Work Experience - General I (3) RPT 1
Supervised training is provided in the area of general employment practices with emphasis on attitude, ethics, and integrity. On-the-job training need not be in the college major but must be educational.

Desktop Publishing

See course listings under **Office Administration**

Developmental Communications

22 Communications Laboratory (5) (NDA) RPT 2
Lecture 5 hours.
Prerequisite: *Satisfactory performance on the ESL Test.*
Provides students with the opportunity to improve academic skills. Recommended for students with deficiencies in specific areas such as reading, spelling, vocabulary, grammar, language skills and study skills. Provides individualized tutoring and programmed media instruction as prescribed.

Drafting - Mechanical

See **Industrial Technology - Drafting**

Earth Science

Earth Science courses are listed under the headings of:
Anthropology
Environmental Science
Geography
Geology
Linguistics
Meteorology
Oceanography

Economics

1 Principles of Economics I (3) UC:CSU (CAN ECON 4)
Lecture 3 hours.
Economics 1, Microeconomics, emphasizes price theory, consumer behavior, production costs, theory of the firm, market structures, and distribution of income. Other topics may include international trade, externalities, economic policy, and history of economic thought.

2 Principles of Economics II (3) UC:CSU (CAN ECON 2)
Lecture 3 hours.
Economics 2, Macroeconomics, emphasizes aggregative economic analysis, including national income determination, inflation, unemployment, investment, fiscal policy, money and banking, and monetary policy. Other topics may include economic growth and development, and urban problems.

10 Economic History of the United States (3) UC:CSU
Lecture 3 hours.
Same as History 15. Credit not given for both courses.
Stresses development and change in economic institutions. Considers the nature of American capitalism and the effects of industrialization on American economic life.

185 Directed Study - Economics (1) †UC:CSU RPT 2

285 Directed Study - Economics (2) †UC:CSU

385 Directed Study - Economics (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Economics on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - Economics (1) CSU RPT 3

921 Cooperative Education - Economics (2) CSU RPT 3

931 Cooperative Education - Economics (3) CSU RPT 3

941 Cooperative Education - Economics (4) CSU RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Limits to transfer credit: *See Cooperative Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

Education

1 Introduction to Teaching (3) CSU
Lecture 3 hours.
Note: *Not open to students with credit in Education 2 or 3.*
This is a pre-professional course intended for students considering a teaching career. Presents the issues and problems involved at all levels of American education. Includes such areas as the historical, social, philosophical and psychological foundations and organization of education, and examines the contributions of teachers to the profession, to students, and to the community.

6 Methods and Materials of Tutoring (1)
Lecture 2 hours.
A course offering instruction in tutoring techniques, group dynamics, interpersonal skills, record-keeping, organizational skills, and study skills. The course explores concepts of cultural differences and values, body language, gesture, and spoken language.

911 Cooperative Education - Education (1) CSU RPT 3

921 Cooperative Education - Education (2) CSU RPT 3

931 Cooperative Education -Education (3) CSU RPT 3

941 Cooperative Education -Education (4) CSU RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Limits to transfer credit: *See Cooperative Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

Electrical Construction And Maintenance

See **Industrial Technology**

Electronics

2 Introduction to Electronics (3) CSU
Lecture 3 hours.
Presents an overview of electronics and provides a general consumer understanding for the non-technical student. Emphasis is on the relationship of this field to other scientific fields, industry, business, the home, and other users. The course will include lectures, demonstrations, films. This course is designed for students not majoring in Electronics.

4A Fundamentals of Electronics IA (3) CSU
Lecture 3 hours.
Corequisite: *Electronics 4B.*
Designed for beginning electronics students without any previous experience with electricity or electronics. Covers fundamentals of atomic theory, basics of volt, OHM, ampere, energy and power, OHM's Law, resistive networks, application of Kirchoff's laws, Thevenin's and Norton's Theory, conductors, resistors, batteries, magnetism, electromagnetic induction, transient functions, and measuring instruments. Computer aided circuit analysis using PSPICE.

4B Fundamentals of Electronics IB (1) CSU
Laboratory 3 hours.
Corequisite: *Electronics 4A.*
Covers experimentation in basic concepts of OHM's Law, wiring practice from schematic to pictorial, use of laboratory instruments, construction of Volt-OHM-Milliammeter. Computer aided circuit analysis using PSPICE.

6A Fundamentals of Electronics IIA (3) CSU
Lecture 3 hours.
Prerequisite: *Electronics 4A and 4B, Electronics 10 and concurrent enrollment in Electronics 6B.*
Studies in detail alternating current theory and applications. Stresses the topics of reactance, impedance, resonance, trans-formers, coupling filters, and bandpass. Emphasizes the solution of alternating current circuit problems. Computer aided circuit analysis using PSPICE.

6B Fundamentals of Electronics IIB (1) CSU
Laboratory 3 hours.
Corequisite: *Electronics 6A.*
Covers practical application of theories presented in Electronics 6A through laboratory experimentation. Computer aided circuit analysis using PSPICE.

8A Electron Devices A (3) CSU
Lecture 3 hours.
Prerequisite: *Electronics 4A and 4B.*
Presents principles of operation of semi-conductor, diodes, bipolar transistors, field effect transistors, MOSFETS, and special purpose electron devices, such as SCRs, tunnel diodes, light emitting diodes, photo-transistors, DIACs, TRIACs, Zener diodes, UJTs, vacuum tubes, cathode ray tubes. Analysis of characteristic curves for semiconductor devices. Biasing and load lines. Introduction to common emitter, common collector and common base transistor configurations. Sample applications of semiconductor devices. Computer aided circuit analysis using PSPICE.

8B Electron Devices B (1) CSU
Laboratory 3 hours.
Prerequisite: *Electronics 8A or concurrent enrollment in Electronics 8A.*
Provides laboratory experience in the use of electron devices and associated test equipment including multimeters, oscilloscopes, generators and the transistor curve tracer. Lab work includes constructing, testing, analyzing, and troubleshooting a variety of semiconductor circuits. Circuit construction and experimentation is supplemented by computer aided circuit analysis.

10 Mathematics of Electronics I (3) CSU
Lecture 3 hours.
Presents principles of basic algebra, equations, factoring, fractional equations, solutions to systems of equations, basic logarithms, power of ten, and basic units of electronics. Emphasis on solutions of problems as applied to electronics. Requires an electronic calculator.

12 Mathematics of Electronics II (3) CSU
Lecture 3 hours.
Presents principles of trigonometry, vectors, logarithms, theory of steady state alternating current circuits. Emphasis on solutions of electronics problems. Requires an electronic calculator.

14 Mathematics of Electronics III (3) CSU
Lecture 3 hours.
Prerequisite: *Electronics 12.*
Presents an applied course in analytic geometry and calculus with emphasis on electronic problems. Covers functions, average rate notations, fundamental derivatives and integrals. Includes practical applications of differentiation, integration of trigonometric, logarithmic and exponential functions.

26 Linear Circuits (3) CSU
Lecture 3 hours.
Prerequisite: *Electronics 8 and concurrent enrollment in Electronics 27 or 63.*
Covers power supplies, AC and DC amplifiers, push-pull amplifiers, complementary symmetry, phase inverters and phase splitters. Analysis of distortion in amplifiers. Covers A, B, and C amplifiers and oscillators, multistage and large signal amplifiers, feedback, input and output impedance and frequency response. Computer aided circuit analysis.

27 Linear Circuits Laboratory (2) CSU
Laboratory 6 hours.
Corequisite: *Electronics 26.*
Note: *Equivalent to Electronics 63.*
Provides laboratory experience with power supplies, AC and DC amplifiers, push pull amplifiers, complementary symmetry. Class A, B, and C amplifiers and cascaded amplifiers are constructed and tested. Construction techniques, troubleshooting methods, and introductory analysis of a basic AM and FM radio.

28 Electronic and Electro-Mechanical Drafting I (2) CSU
Lecture 1 hour; laboratory 2 hours.
Covers techniques of lettering, signs, and symbols as applied to electronics. Includes wiring diagrams, printed circuits, and packaging techniques. Component layout, highway and airline-type diagrams and perspective are also included. Printed circuit board and schematic layout using computer aided design software.

44 Communications Electronics (3)
Lecture 3 hours.
Prerequisite: *Electronics 6 and 8.*
Provides a study of AM, FM and SSB transmitters and receivers. Crystal, ceramic and LC filtering. Oscillators, modulators, mixers, discriminators, and RF amplifiers. Frequency multipliers, limiters, and antennas. Audio and squelch circuits. Introduction to video systems. Implementation of phase locked loops in detectors, frequency synthesizers and FSK receivers. Dual gate MOSFETS, varactors, and integrated devices in RF circuitry. Introduction to digital communications modems, FSK, and frequency domain analysis. Discussion of the requirements for obtaining a Radio Telephone Operator License.

45 Communications Electronics Laboratory (1)
Laboratory 3 hours.
Corequisite: *Electronics 44.*
Provides laboratory experience for Electronics 44.

48 Integrated Circuits (4) CSU
Lecture 3 hours; laboratory 3 hours.
Prerequisite: *Electronics 26, 27, and 63.*
Covers theory and interface of linear and linear/digital interface integrated circuits. DC basic circuits, input/output resistance, drift, input offset/bias current, models, CMRR, open and closed loop gains and frequency response are covered. Application to differential, operational and video amplifiers. Covers voltage regulators, MOS interface, peripheral driver,line transmission circuits, and phase lock loop circuits. Computer aided circuit analysis.

60 Microwave Fundamentals (3)
Lecture 3 hours.
Prerequisite: *Electronics 6 and 8.*
Includes discussions of microwave applications and frequency bands. Trans-mission line principles and characteristics. Use of Smith chart in solving transmission line problems. Matching load to transmission line, VSWR and reflection coefficients, stubs and tuners. Microwave generators and amplifiers including gunn, klystron, travelling wave tubes, and magnetrons. Microwave components: wave-guides and operating modes, slotted lines, directional couplers, and power sensors.

61 Microwave Fundamentals Laboratory (1)
Laboratory 3 hours.
Prerequisite: *Electronics 60 or concurrent enrollment.*
Provides practical experience using modern measuring instruments including VSWR and power meters, spectrum analyzers, swept frequency systems and plotters. Experiments demonstrate electro-magnetic wave theory and measurement techniques to determine VSWR, reflection coefficient, load impedance, power, frequency and attenuation. Use of time domain reflectometry in analyzing transmission line faults.

63 Circuit Analysis Laboratory (1)
Laboratory 3 hours.
Corequisite: *Electronics 26.*
Provides laboratory experience with power supplies, AC and DC amplifiers, push pull amplifiers, complementary symmetry. Class A, B, and C amplifiers and cascaded amplifiers are constructed and tested. Construction techniques and trouble-shooting methods. Computer aided circuit analysis.

72A Digital Circuits IA (3) CSU
Lecture 3 hours.
Prerequisite: *Electronics 6 and 8. Corequisite: Electronics 72B.*
Presents principles of digital electronics and computer technology. Provides coverage of digital number systems, boolean algebra and simplification techniques including Karnaugh maps. Logic gates and the design of logic systems including adders and subtractors, encoders and decoders, code converters, comparators, multiplexers, drivers and displays, decade counting units, gate arrays and programmable logic devices are presented. The operation of multivibrators, and their applications to counters, registers, timers, and clock generators are discussed. RAM, ROM, EPROM, EEPROM, and other memories and memory organization are studied. Three state devices and introduction to buss organization. Introduction to synchronous sequential design and computer aided circuit design.

72B Digital Circuits Laboratory IB (1) CSU
Laboratory 3 hours.
Corequisite: *Electronics 72A.*
Provides practice in breadboarding and troubleshooting digital circuits using TTL integrated circuits. The circuits that are constructed and tested include logic gates, flip-flops, memories, counters, registers, and digital displays. Emphasis is placed on using manufacturers data sheets.

74A Digital Circuits IIA (3) CSU
Lecture 3 hours.
Prerequisite: *Electronics 72A and B.*
Corequisite: *Electronics 74B.*
A comprehensive study of a representative microprocessor, with an emphasis on the internal architecture, instruction set, and support chips. The fundamentals of micro and macro programming are covered. Input and output control and interfacing with a study of hardware and machine language programming techniques. Many programming examples and control ap-plications are discussed. A/D and D/A conversion, memory address decoding, buss organization, and timing are also covered.

74B Digital Circuits Laboratory IIB (1) CSU
Laboratory 3 hours.
Corequisite: *Electronics 74A.*
Machine and assembly language programming techniques are studied using a representative microprocessor. Data manipulation and arithmetic operations, timing, keyboard and display control, input and output port control, and hardware interfacing are performed in the laboratory. Analog to digital and digital to analog conversion and other instrument interfacing techniques are attempted.

81 Projects Laboratory (1) RPT 3
Laboratory 3 hours.
Requires the student, after consultation with the instructor, to design, assemble, and determine the characteristics of a project involving electronic systems. Includes such typical projects as hi-fi amplifiers, ham transmitters, FM tuners, test equipment, and communications equipment. Requires the student to write a report covering the characteristics, theory, repair, and operation of the project and do all research without direct supervision. All materials are supplied by the student.

185 Directed Study - Electronics (1) RPT 2

285 Directed Study - Electronics (2)

385 Directed Study - Electronics (3)
Conference 1 hour per unit.
Allows students to pursue Directed Study in Electronics on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - Electronics (1) CSU RPT 3

921 Cooperative Education - Electronics (2) CSU RPT 3

931 Cooperative Education - Electronics (3) CSU RPT 3

941 Cooperative Education - Electronics (4) CSU RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Limits to transfer credit: *See Cooperative Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

English

The results of the English Placement Test or Form must be presented at registration or included in the registration packet in order to enroll in English 20, 21, 28 or 101, English 81,82, or 84-87,.

All students planning to enroll in an English course for the first time are **expected** to take the English Placement Test at the Pierce College Assessment Center. Contact the Assessment Center at (818) 719-6499 for an appointment and sample test information. Placement results or prerequisite courses taken at other colleges may be presented to the Assessment Center to be substituted for the Pierce English Placement test.

Placement recommendations made by the English Placement Test are advisory and intended to assist students enrolling in classes where they are most likely to succeed. Upon completing the test, students are advised of their recommended placement and given their authorization to enroll.

English Writing Laboratory
Open to any regularly enrolled student in Pierce College.

20 College Reading Skills (6) (NDA)
Lecture 6 hours.
Prerequisite: *Appropriate score on Assessment examination.*
Offered in 3-unit modules.
Provides students with entry level opportunities to improve reading comprehension, critical thinking, vocabulary, and related skills necessary for success in college classes.

21 English Fundamentals (3) (NDA)
Lecture 3 hours.
Prerequisite: *English 20 or English 87 with a grade of "C" or better, or a satisfactory score on the English Place-ment Test.*
Emphasizes improvement of writing, particularly sentences and paragraphs, and supplements and reinforces basic communication skills including punctuation, spelling and sentence structure. Develops ability to read analytically and think logically.

22 Technical English (3)
Lecture 3 hours.
Prerequisite: *Eligibility for English 21 or higher.*
Includes training for students in the technical and industrial fields in writing, reading, listening, and speaking, with emphasis on the writing of technical reports, directives, memoranda, specifications. Includes preparation and presentation of oral reports and preparation of an occupational resume.

23 Advanced Vocabulary (3) (NDA)
Lecture 3 hours.
Teaches techniques of enlarging and enriching the individual's vocabulary. Includes a study of the history of language and a survey of the varied elements, including those of Greek and Latin, which make up the English language. Includes the study of semantics.

28 Intermediate Reading and Composition (3)
Partially satisfies reading and composition competency requirements for AA degree.
Lecture 3 hours.
Prerequisite: *English 21 with a grade of "C" or better, or a satisfactory score on the English Placement Test.*
Introduces the student to the elements of composition and critical reading. De-signed to assist the student to make a successful transition to English 101. Emphasizes grammar, sentence structure, paragraph and essay writing.

32 College Literary Magazine Editing (2) RPT 3
Lecture 2 hours.
This course studies the ways to process poetry and prose submitted to the editor of the literary magazine (Direction), in-cluding critical evaluation of short stories and poetry, rewriting, editing, and copy reading. In addition, it includes printshop experience doing makeup and proof-reading, study and evaluation of other college literary magazines, and training in magazine promotion and sales.

33 Basic Vocabulary (3) (NDA)
Lecture 3 hours.
Prerequisite: *English 20 with a grade of "C" or better or placement in English 21 or 86.*
Enlarges and enriches the student's vocabulary through a systematic study of word meanings, structure and origins. Introduces the study of semantics. Develops spelling ability. Teaches the use of dictionaries and other tools for building vocabulary.

81 Intermediate ESL Reading & Vocabulary (3) (NDA)
Lecture 3 hours.
Prerequisite: *Entry level score on assessment test.*
English as a Second Language Program. Academic reading for intermediate second language students. Development of skills leading to college reading proficiency.

82 Introduction to College English as a Second Language (5) (NDA)
Lecture 5 hours.
Prerequisite: *English 81 with a grade of "C" or appropriate placement on ESL Test.*
Intended for students whose native tongue is not English. Introduces students to English pronunciation patterns, basic sentence patterns, and elementary communication skills. Emphasizes reading improvement for comprehension, developing a sight vocabulary, and learning word-attack skills.

83 College Conversational English as a Second Language (3) (NDA) RPT 1
Lecture 3 hours.
Prerequisite: *Appropriate placement on ESL Test.*
Intended for students whose native tongue is not English. Emphasizes basic language acquisition skills, including intonation patterns, American idioms, sentence patterns, grammar as check for language correctness. Also included are listening skills, reading for vocabulary and compre-hension, and guided writing.

84 College English as a Second Language I (5) (NDA)
Lecture 5 hours.
Prerequisite: *Appropriate placement on ESL Test, or English 82 with a grade of "C" or better.*
Intended for students whose native tongue is not English. An intensive multi-skills course emphasizing basic aspects of English grammar, punctuation, spelling, sentence structure. Includes speaking and listening skills, reading for vocabulary and comprehension, and guided writing.

85 College English as a Second Language II (5) CSU
Lecture 5 hours.
Prerequisite: *Appropriate placement on ESL Test or English 84 with a grade of "C" or better.*
For students whose native tongue is not English. Includes drill in the construction of sentences and their word order, grammar, idioms, punctuation, capitalization, vocabulary, and spelling. Also includes reading for comprehension and practice in paragraph writing.

86 College English as a Second Language III (5) UC:CSU
Lecture 5 hours.
Prerequisite: *Appropriate placement on ESL Test or English 85 with a grade of "C" or better.*
For students whose native tongue is not English. Continues to work on the fundamentals of English as a second language. Places emphasis on writing, syntax, and reading.

87 Advanced ESL: Reading and Vocabulary (3) CSU
Lecture 3 hours.
Prerequisite: *Appropriate placement on ESL Test or English 86 with grade of "C" or better.*
A reading skills course designed for advanced ESL students. Includes reading for comprehension, skimming, scanning techniques, as well as exercises in critical reading and non-prose reading. Will improve vocabulary through various word study exercises.

101 College Reading and Composition I (3) UC:CSU (CAN ENGL 2)
Lecture 3 hours.
Prerequisite: *English 28 with a "C" or better, or a satisfactory score on the English Placement test.*
Develops proficiency in reading and writing through application of the principles of rhetoric and the techniques of critical thinking. Prerequisite is an understanding of the elements of grammar, punctuation, and sentence structure. Required for English majors.

102 College Reading and Composition II (3) UC:CSU (CAN ENGL 4)
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
See also Humanities 11, 12, 13, 14.
Introduces types of literature. Concentrates on reading for enjoyment, appreciation, and the development of critical judgment. Emphasizes written analysis of short stories, poetry, novels, and drama. Required for English majors.

103 Composition and Critical Thinking (3) UC:CSU
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
A course specifically designed to deal with the issues of critical thinking and written expression. It builds on the reading and writing skills developed in English 101. Papers of greater length and depth are required.

127 Creative Writing (3) **UC:CSU (CAN ENGL 6) RPT 3
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
Presents a workshop in creative writing. Class and instructor informally discuss and criticize students' plays, poems, short stories, and essays. Encourages student participation in campus literary publication.

203 World Literature I (3) UC:CSU
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better. English 102 recommended but not required.*
Introduces the great books of the world from Homer to the Renaissance.

204 World Literature II (3) UC:CSU
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better. English 102 recommended but not required.*
Continues the study of English 203, presenting great books of the world from the Renaissance to recent times. English 203 is not a prerequisite.

205 English Literature I (3) UC:CSU (CAN ENGL 8)
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better. English 102 recommended but not required.*
Surveys English literature from the Anglo-Saxon period through the 18th century. Required for English majors.

206 English Literature II (3) UC:CSU (CAN ENGL 10)
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
English 102 recommended but not required.
Continues the study of English 205, covering English literature from the 18th century to the 20th century. English 205 is not a prerequisite. Required for English majors.

207 American Literature I (3) UC:CSU (CAN ENGL 14)
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
English 102 recommended but not required.
Surveys American literature from its beginning to 1860.

208 American Literature II (3) UC:CSU (CAN ENGL 16)
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
English 102 recommended but not required.
Continues the study of English 207, covering American literature from 1860 to the 20th century. English 207 is not a prerequisite.

209 California Literature (3) UC:CSU
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
English 102 recommended but not required.
The course presents selected works by writers observing California life. Readings from sources as varied as Native-American legends and Hollywood memoirs will demonstrate such aspects of the study of literature as plot and structure, character, point of view, figurative discourse.

211 Fiction (3) *UC:CSU RPT 1 (CAN ENGL 18)
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
English 102 recommended but not required.
Emphasizes selected great novels and short stories from French, German, Russian, English, American, and Spanish literature.

212 Poetry (3) *UC:CSU (CAN ENGL 20) RPT 1
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
English 102 recommended but not required.
Emphasizes reading, discussion and analysis of selected poems. Designed to increase the student's understanding and appreciation of all forms of poetry.

213 Dramatic Literature (3) UC:CSU
Lecture 3 hours.
(Same as Theater 125. Credit not given for both courses.)
Prerequisite: *English 101 with a grade of "C" or better.*
English 102 recommended but not required.
Surveys dramatic literature from the beginnings to the present day with emphasis on the works of the major playwrights, such as Sophocles, Shakespeare, Moliere, Shaw, Ibsen, O'Neill, and Williams.

214 Contemporary Literature (3) UC:CSU
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
English 102 recommended but not required.
Concentrates on significant literature since 1920, primarily American and British. Includes lectures and discussions, oral and written reports. Emphasis is placed upon critical analysis of short story, novel, drama, and poetry.

215 Shakespeare I (3) UC:CSU
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
English 102 recommended but not required.
Introduces the life and works of William Shakespeare, with emphasis on Shakespeare's milieu. Emphasizes detailed study of several history plays, earlier comedies and tragedies.

216 Shakespeare II (3) UC:CSU
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
English 102 recommended but not required. May be taken before English 215.
Concentrates on the later comedies and tragedies, beginning with the problem comedies, and proceeding through major tragedies.

218 Children's Literature (3) CSU
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
A survey of literature suitable for children of different age levels. Emphasis will be placed on story telling, acquaintance with authors and the development in children of desirable attitudes toward literature. Recommended for prospective nursery, kindergarten, elementary and secondary teachers. Parents will find the course helpful in discovering what reading material is available.

219 Literature of American Ethnic Groups (3) UC:CSU
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
A study of the literature of American ethnic writers: stories, novels, plays, poems, essays, and other non-fiction prose works. Works are examined in the context of traditional and contemporary problems of American ethnic groups, each of which offers a unique contribution to American society.

239 Women in Literature (3) UC:CSU
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
English 102 recommended but not required.
Focuses on major plays and works of fiction from ancient times to the present which make women their central characters. This course considers the reflection of women's changing status given by the great writers.

240 Literature and the Motion Picture I (3) ΔUC:CSU
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
Examines the comparative arts of literature and the motion picture. Includes readings of literary classics, screenings of film classics based upon these literary sources, discussion, and writing of several critical papers.

241 Literature and the Motion Picture II (3) ΔUC:CSU
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
Continues the examination of the comparative arts of literature and the motion picture. Includes readings of literary classics, screenings of film classics based upon these literary sources, discussion, and writing of critical papers. Uses different materials than English 240. May be taken before English 240.

250 Mythology and Literature (3) UC:CSU
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
English 102 recommended but not required.
Introduces the mythology of Western and Near-Eastern civilizations, broadened to include such other elements of folk tale as marchen, fairy tale legend, etiological tale, fable, myth, and motif.

252 The English Bible as Literature (3) UC:CSU
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
English 102 recommended.
A study of the Bible with the Oxford Annotated Revised Standard Version with the Apocrypha as the basic text.

270 Science Fiction (3) UC:CSU
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
(English 102 recommended but not required.)
Presents science fiction as literature, with emphasis on the use of mythology, science fiction by scientists and nonscientists, political and philosophical oriented science fiction, and science fiction as fantasy and escape literature.

185 Directed Study - English (1) †UC:CSU RPT 2

285 Directed Study - English (2) †UC:CSU

385 Directed Study - English (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in English on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - English (1) CSU RPT 3

921 Cooperative Education - English (2) CSU RPT 3

931 Cooperative Education - English (3) CSU RPT 3

941 Cooperative Education - English (4) CSU RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Limits to transfer credit: *See Cooperative Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

**UC Credit Limit: Maximum one course.*
***UC Credit Limit: Maximum two courses.*
**UC Credit Limit: One course from English 240 and 241.*

English - Business

See course listings under **Office Administration**

Environmental Science

1 The Human Environment: Physical Processes (3) UC:CSU
Lecture 3 hours.
Examines the impacts of human activities on our physical life support system. The Scientific Method and technology, and basic principles of matter and energy provide the perspective to understand the nature of our environmental problems and what may be done to prevent future impacts and remediate those that have already occured. Topical environmental issues (e.g. climate modification, the Ozone layer, waste disposal, air pollution, energy issues, etc.) will be examined with careful consideration of the basic science which solutions to these problems must accommodate.

2 The Human Environment: Biological Processes (3) *UC:CSU
Lecture 3 hours.
Examines the impacts of human activities on the earth's biological systems and resources. This includes discussions of the scientific basics and principles of: ecology and ecosystem development and dynamics; population dynamics; and environmental toxicology. Careful examination will be made of the scientific basis for determination of impact of pollution, agriculture, and other human activities. Finally, what has been learned will be applied to understanding the problems of establishing meaningful environmental standards and regulations, with careful consideration and emphasis of the basic scientific realities they must reflect.

7 Introduction to Environmental Geology (3) UC:CSU
Lecture 3 hours.
Same as Geology 10. Credit not given for both courses.
Studies the impact that geologic processes have on the environment and human life. Topics creating special problems and limiting future opportunities, including geologic hazards (earthquakes, volcanism, flooding, downslope movement, coastal erosion and deposition), environmental health, earth resources(water, minerals, fossil fuels, wind and geothermal power, nuclear energy) will be discussed.

9 Introduction to Air Pollution (3) UC:CSU
Lecture 3 hours.
Same as Physical Science 5. Credit not given for both courses.
Introduces the student to the sources of air pollution and the technical problems of reducing air pollution. The course includes the physics of the atmosphere, the chemistry of air pollutants, analysis methods and possible methods of pollution control.

17 Geography of California (3) UC:CSU
Lecture 3 hours.
Same as Geography 14. Credit not given for both courses.
Covers the regions of California, their physical feature and resources in relation to patterns of population and settlement, economic activities, transportation routes and trade.

18 People and the Earth's Ecosystem (3) UC:CSU
Lecture 3 hours.
Same as Geography 9. Credit not given for both courses.
Examines the historical and contemporary roles of human societies as a major agent of biological change in the earth ecosystem. Provides the basis for a revised biophysical geography that avoids the view that man is an entity apart from the ecosystems (nature) and opens the door to an understanding of biophysical geography largely freed from the concept that ours was a planet virgin until the beginning of the industrial revolution.

31 Energy and Power (3) UC:CSU
Lecture 3 hours.
Introduces the student to sources of energy, from burning coal to nuclear fusion. Discusses the physical principles involved with each source of energy with emphasis on feasibility and potential pollution problems of each. Topics to be discussed include: fossil-fuel, nuclear, hydroelectric, tidal, geothermal, solar, and other energy forms. Energy used for transportation and residential living is discussed. The important role of conservation is examined and students are encouraged to formulate their own energy policies. This course is designed for the general education student.

185 Directed Study - Environmental Science (1) †UC:CSU RPT 2

285 Directed Study - Environmental Science (2) †UC:CSU

385 Directed Study - Environmental Science (3) †UC:CSU
Prerequisite: *A minimum of 3 units in Environmental Science.*
Conference 1 hour per unit.
Allows students to pursue Directed Study in Environmental Science on a contract basis under the direction of a supervising instructor.

**UC Credit Limit: Maximum one course.*

Equine Science

See **Agriculture** course listings 600-699

Finance

1 Principles of Finance (3) CSU
Lecture 3 hours.

Examines the principles of money, credit, banking, and the role of the Federal Reserve System. Studies business organization and financial policies, the financial system and types of financial instruments, interest rates, capital management, money and capital markets, and the effect of government policy on those financial markets.

2 Investments (3) CSU
Lecture 3 hours.

Emphasizes the study of the stock market from a practical viewpoint, including reading of the financial pages, analysis of industrial, railroad, public utility, mutual fund, tax free and government securities, and the proper procedure for buying and selling stocks, bonds, and options.

8 Personal Finance and Investments (3) CSU
Lecture 3 hours.

Contains lectures, discussions, and practice in applying the principles of accounting, banking, finance, office methods, management, production and merchandising to one's personal affairs. Stresses family budgeting, consumer credit, home ownership, life and property insurance, investment and savings plans, social security and retirement plans, and personal record keeping.

French

1 Elementary French I (5) UC:CSU (CAN FREN 2)
Lecture 5 hours.
Recommended: *Concurrent enrollment in French 101.*
Recommended: *Eligibility for English 28. Students with previous knowledge of French should not enroll in French 1, but in a higher level. Native speakers should enroll in French 4, 5, or 6.*

Introduces the fundamentals of pronunciation and grammar, practical vocabulary, and useful phrases. Emphasizes the ability to understand, speak, read, and write simple French. Exposes the student to the culture of France. English is used to explain grammatical concepts but otherwise the class is conducted as much as possible in French. Corresponds to the first year of high school French.

2 Elementary French II (5) UC:CSU (CAN FREN 4)
Lecture 5 hours.
Prerequisite: *French 1 or one year of high school French with a grade of "C" or better in either case.*
Recommended: *Concurrent enrollment in French 101.*
Recommended: *Eligibility for English 28. Students with previous knowledge of French should not enroll in French 2, but in a higher level. Native speakers should enroll in French 4, 5, or 6.*

Continues the study of basic French conversation using practical vocabulary and regular and irregular verbs in the present and past tenses. Embraces read-ings and dialogues based on French culture. Stresses oral communication and reading and writing for comprehension. The class is conducted entirely in French except for grammar clarification.

3 Intermediate French I (5) UC:CSU (CAN FREN 8)
Lecture 5 hours.
Prerequisite: *French 2 or two years of high school French with a grade of "C" or better in either case.*
Recommended: *Concurrent enrollment in French 101.*
Recommended: *Eligibility for English 28.*
Note: *Concurrent enrollment in French 8 is strongly recommended for non-native speakers.*

Completes the study of basic French grammar. Includes more challenging texts, and further amelioration of writing and speaking through written and oral dialogues. Teaches French culture as back-ground for conversation and reading. Class is conducted entirely in French except where grammatical concepts need English clarification.

4 Intermediate French II (5) UC:CSU (CAN FREN 10)
Lecture 5 hours.
Prerequisite: *French 3 or three years of high school French with a grade of "C" or better in either case.*
Recommended: *Concurrent enrollment in French 101.*
Note: *Concurrent enrollment in French 8 is strongly recommended for non-native speakers.*

Utilizes more advanced reading of texts and cultural material from France and French-speaking countries, in conjunction with conversation and discussion. Incorporates review of the basic structure and grammar of the French language. Emphasizes written composition as well as aural comprehension.

5 Advanced French I (5) UC:CSU
Lecture 5 hours.
Prerequisite: *French 4 with a grade of "C" or better.*
Recommended: *Concurrent enrollment in French 101.*
Note: *Concurrent enrollment in French 8 is strongly recommended for non-native speakers.*

Continues the study of grammar and of literature from France and French-speaking countries. Includes advanced composition, and the use of practical idioms. Stresses oral and written reports on France and French-speaking countries.

6 Advanced French II (5) UC:CSU
Lecture 5 hours.
Prerequisite: *French 5 with a grade of "C" or better.*
Note: *Concurrent enrollment in French 8 is strongly recommended for non-native speakers.*

Studies some important texts from the seventeenth century through the present day, with special emphasis on oral discussion and written analysis of the literature of France and French-speaking countries.

8 Conversational French (2) CSU RPT 3
Lecture 2 hours.
Prerequisite: *French 2 or equivalent with a grade of "C" or better.*
Recommended: *Concurrent enrollment in French 101.*

Develops conversational skill and fluency. Emphasizes idioms, correct use of tenses of French verbs, and fundamental sentence structure.

81 Practical French for Business (3)
Lecture 3 hours.
Prerequisite: *French 1 or equivalent.*
Normally offered in the Fall semester only.

This course consists of lectures in English and exercises and conversational practice in French, related to commercial and marketing environments. Students will acquire skills in business correspondence in French and familiarize themselves with business and social practice in French-speaking countries.

101 French Language Laboratory (1) CSU RPT 3
Laboratory 2 hours.
Note: *Recommended for all students enrolled in French 1, 2, 3, 4, 5, or 8.*

(This is a credit/no-credit course. Students receive one unit of college credit with no letter grade by spending at least 32 hours over the semester using the equipment and regularly handing in the lab workbook assignments to their instructor.)

This language workshop uses multi-media (video, audio and computers) to enhance instruction. The workshop meets on the first floor of the Library in The Learning Center (TLC), the Media Center, and/or in ML 2114.

185 Directed Study - French (1) †UC:CSU RPT 2

285 Directed Study - French (2) †UC:CSU

385 Directed Study - French (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in French on a contract basis under the direction of a supervising instructor.

Geography

1 Physical Geography (3) *UC:CSU (CAN GEOG 2)
Lecture 3 hours.
Studies the main features of man's physical environment with emphasis on earth-sun relationships, globes, maps, weather, climate, landforms, soils, natural vegetation, and their patterns of world distribution.

2 Cultural Elements of Geography (3) UC:CSU (CAN GEOG 4)
Lecture 3 hours.
Studies the basic human/cultural elements of geography and their correlation with the physical environment. Emphasis on population, cultural diversity, language, religion, means of livelihood, settlement patterns, political organization. Specific countries, areas, or cultural groups illustrating various topics are utilized as case studies.

3 Introduction to Weather and Climate (3) UC:CSU
Lecture 3 hours.
Same as Meteorology 3. Credit not given for both courses.
Studies the nature and causes of weather phenomena including winds, clouds, rain, lightning, tornadoes and hurricanes, solar energy, composition of the atmosphere, causes of air pollution, weather modification, the impact of weather on the human environment, and introduction to climate.

5 Geography of Resource Utilization (3) UC:CSU
Lecture 3 hours.
Develops the basic principles for the use and conservation of human and natural resources through a representative study of primitive livelihoods, world agri-culture, forestry, fishing, mining, manu-facturing, service industries, transportation, and trade.

7 World Regional Geography (3) UC:CSU
Lecture 3 hours.
A geographical survey of the world's major regions with emphasis on those features important to an understanding of current global concerns and problems.

8 Introduction to Urban Geography (3) UC:CSU
Lecture 3 hours.
Studies the origin, development, distribution, and regional variation of the world's cities, with particular emphasis on an analysis of the functions and patterns of the American cities.

9 People and the Earth's Ecosystem (3) UC:CSU
Lecture 3 hours.
Same as Environmental Science 18. Credit not given for both courses.
Examines the historical and contemporary roles of human societies as a major agent of biological change in the earth eco-system. Provides the basis for a revised biophysical geography that avoids the view that man is an entity apart from the ecosystems (nature) and opens the door to an understanding of biophysical geography largely freed from the concept that ours was a planet virgin until the beginning of the industrial revolution.

10 Geography of the Americas (3) UC:CSU
Lecture 3 hours.
Provides a regional study of Middle and South America, Canada, and the United States, with an examination of the phys-ical and cultural geographic backgrounds of the Americas and the current economic and land use patterns.

12 Geography of Africa, the Middle East And Oceania (3)UC:CSU
Lecture 3 hours.
Correlates the physical background with cultural, economic and political development of principal countries and peoples of Africa, Middle East, and Oceania.

14 Geography of California (3) UC:CSU
Lecture 3 hours.
Same as Environmental Science 17
Delineates the regions of California, their biophysical features and resources in relation to patterns of population and settlement, economic activities, trade, transportation, and environmental problems.

15 Physical Geography Laboratory (2) *UC:CSU
Lecture 1 hour; laboratory 2 hours.
***Prerequisite:** Geography 1.*
Covers plotting, interpolating, and interpreting of earth-sun relations; time, earth representation through globes and maps; temperature, moisture, pressure, climate, natural vegetation, soil groups, and landform evolution by tectonic forces, erosion, and deposition.

17 Physical Geography & Laboratory (5) *UC:CSU
Lecture 4 hours; laboratory 2 hours
Same as Geography 1 and 15 combined.
Studies earth-sun relations, time, earth representation through maps and globes, temperature, moisture, pressure, climate, vegetation, soil groups, landform evolution by tectonic and gradational forces, and air photo interpretation. Laboratory involves plotting interpolating, and interpreting data that is specifically linked to lecture topics.

20 Field Studies in California Geography (6) CSU
Lecture 6 hours.
Field surveys of people-land relations on the diverse physical and cultural landscapes of Southern California. These surveys ephance the understanding of past and present cultural environments that people superimpose on their natural environment.

185 Directed Study - Geography (1) †UC:CSU RPT 2

285 Directed Study - Geography (2) †UC:CSU

385 Directed Study - Geography (3) †UC:CSU
Conference 1 hour per unit.
***Prerequisite:** A minimum of 3 units in Geography.*
Allows students to pursue Directed Study in Geography on a contract basis under the direction of a supervising instructor.

**UC Credit Limit: Maximum 5 units.*

Geology

See also **Environmental Science** 1, 7; **Oceanography** 1, 10.

1 Physical Geology (3) UC:CSU (CAN GEOL 2)
Lecture 3 hours.
Introduces the student to the general field of geology, including a study of the work of rivers, winds, glaciers, oceans, vulcanism and seismology in shaping the earth, with emphasis upon the relation-ships existing between humans and the geological processes.

2 Earth History (3) UC:CSU
Lecture 3 hours.
Normally offered in the Spring semester only.
Studies the evolving earth through its rock and fossil record. Incorporates concepts of plate tectonics, age dating, rock correlation and evolution to reconstruct the ever changing patterns of features, environments and organisms on the earth's surface from the formation of the planet to present day.

4 Physical Geology & Laboratory (5) UC:CSU
Lecture 4 hours; laboratory 2 hours
Same as Geology 1 and 6 combined
A study of the work of rivers, winds, glaciers, oceans, vulcanism, and seismology in shaping the earth, with emphasis upon the relationships existing between humans and the geologic processes. Laboratory exercises in rock and mineral identification, and map interpretation.

6 Physical Geology Laboratory (2) UC:CSU (CAN GEOL 2)
Lecture 1 hour; laboratory 2 hours.
Prerequisite: *Geology 1 or concurrent enrollment.*
Laboratory exercises in identification of rock-making and ore minerals, igneous, metamorphic, and sedimentary rocks. Interpretation of topographic maps, geo-logic maps and aerial photographs. Geo-logy 6 is intended to satisfy physical science lab credits for all students concurrently enrolled in Geology 1.

7 Earth History Laboratory (2) UC:CSU
Lecture 1 hour; laboratory 2 hours.
Prerequisite: *Geology 2 or concurrent enrollment.*
Offers opportunities to learn techniques and skills used in deciphering earth history. Includes the identification of fossils, use of maps, exercises in age dating, correlation, and reconstruction of ancient environments.
Normally offered in the Spring semester only.

10 Introduction to Environmental Geology (3) UC:CSU
Lecture 3 hours.
Same as Environmental Science 7. Credit not given for both courses.
Studies the impact that geologic processes have on the environment and human life. Topics creating special problems and limiting future opportunities, including geologic hazards (earthquakes, volcanism, flooding, downslope movement, coastal erosion and deposition), environmental health, earth resources (water, minerals, fossil fuels, wind and geothermal power, nuclear energy) will be discussed.

11 Introduction to Geology: Our National Parks and Monuments (3) CSU
Lecture 3 hours.
Surveys the geological development and features of our National Parks and Monuments with emphasis upon those located in the western United States. Involves optional field trips.

12 Introduction to the Geology of California (3) UC:CSU
Lecture 3 hours.
Surveys the physical and historical geology of California. Gives consideration to the twelve geomorphic provinces into which the State is divided, and to the characteristic geological record, with particular reference to the later part of earth history.

17 The Age of Dinosaurs (3) UC:CSU
Lecture 3 hours.
Studies dinosaurian evolutionary patterns, including their origins, physiology, behavior, ecologic relationships, and extinction.

22 Geomorphology (4) UC:CSU
Lecture 3 hours; laboratory 2 hours.
Note: *This course is taught in 1 unit modules.*
Offers a basic course in the description, evolution, and classification of landforms. The student will have an opportunity to examine representative landforms through field trips.

185 Directed Study - Geology (1) †UC:CSU RPT 2

285 Directed Study - Geology (2) †UC:CSU

385 Directed Study - Geology (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Geology on a contract basis under the direction of a supervising instructor.

Health

7 Physical Fitness and Nutrition (3) *UC:CSU
Lecture 3 hours.
Considers the nature and importance of physical fitness and good nutrition in our personal and social development. Analyzes and evaluates various types of muscular activities in terms of students' needs and interests. Encourages the selection of nutritive foods for weight control, disease prevention, and general well-being.

9 Health for the Mature Individual (3) CSU
Lecture 3 hours.
Designed to meet the personal needs and interests of the mature and older students in the field of aging. Emphasis is placed on promoting and maintaining physical, emotional, and social good health, despite possible limitations of advancing years.

10 Health Education (2) *UC:CSU
Lecture 2 hours.
Not an activity class.
Note: *Credit given for either Health 10 or Health 11, but not both.*
No credit given for students who have completed Health 11.
Considers the nature and function of health in our social pattern. Conceptual analysis of major health problems designed to contribute to students' attitudes toward their roles as individuals physically, emotionally, and socially.

11 Principles of Healthful Living (3) *UC:CSU
Lecture 3 hours.
Not an activity class.
Note: Credit given for either Health 10 or Health 11, but not both.
Encompasses the same content as Health 10 but explores the material in greater depth.

12 Safety Education and First Aid (3) UC:CSU
Lecture 3 hours.
Does not meet health requirement for graduation.
Consists of instruction and practical application in the prevention of and care for common accidents and emergencies in the home, school, and community. Standard and advanced American Red Cross certificates may be granted upon satisfactory completion of the course. Recommended for physical education, recreation, and allied health majors.

185 Directed Study - Health (1) CSU RPT 2

285 Directed Study - Health (2) CSU

385 Directed Study - Health (3) CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Health Education on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - Health (1) CSU RPT 3

921 Cooperative Education - Health (2) CSU RPT 3

931 Cooperative Education - Health (3) CSU RPT 3

941 Cooperative Education - Health (4) CSU RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Limits to transfer credit: *See Cooperative Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

**UC Credit Limit: Maximum one course.*

History

1 Introduction to Western Civilization I (3) UC:CSU (CAN HIST 2)
Lecture 3 hours.
Teaches historically major elements in the Western heritage from the world of the Greeks to the Age of Absolutism in the 17th century. Furthers beginning students' general education, introducing them to the ideas, attitudes, and institutions basic to western civilization and acquaints them, through reading and critical discussion, with representative contemporary docu-ments and writings of enduring interest.

2 Introduction to Western Civilization II (3) UC:CSU (CAN HIST 4)
Lecture 3 hours.
Teaches historically major elements in the Western heritage from the world of the Age of Absolutism in the 17th century to the present. Furthers beginning students general education, introducing them to the ideas, attitudes, and institutions basic to western civilization and acquaints them, through reading and critical discussion, with representative contemporary docu-ments and writings of enduring interest.

3 History of England and Great Britain I (3) UC:CSU
Lecture 3 hours.
Surveys the political, economic, and cultural development of the British Isles and the Empire from the earliest times to the eighteenth century.

4 History of England and Great Britain II (3) UC:CSU
Lecture 3 hours.
Traces the political, economic, and cultural development of the British Isles and the Empire from the eighteenth century to the present time.

5 History of the Americas I (3) UC:CSU
Lecture 3 hours.
Teaches the political, social, and economic development of the American from pre-Columbian times to the beginning of the development of nationalism.

6 History of the Americas II (3) UC:CSU
Lecture 3 hours.
Surveys the development of the various national states with special consideration of the social and political affairs of the twentieth century.

7 The World's Great Religions (3) UC:CSU
Lecture 3 hours.
Offers a critical comparison of the world's great religions, as well as an appreciation of religion's contribution to humanity's cultural heritage.

8 History of the American West (3) UC:CSU
Lecture 3 hours.
Concerns the history of the evolving frontier from early explorations and the Western Movement to the late nineteenth century. Includes the consideration of the environmental factors that shaped the frontier, the people who occupy the frontier, and their customs. A study of the rise of democracy in the West and its influence on the rest of the United States.

11 Political and Social History of the United States I (3) *UC:CSU (CAN HIST 8)
Lecture 3 hours.
Surveys the history of the United States from pre-Columbian times to 1865. Devotes particular attention to the political and social development of this period. Surveys federal constitution.

12 Political and Social History of the United States II (3) **UC:CSU (CAN HIST 10)
Lecture 3 hours.
Surveys the political, social, and institutional changes in the history of the United States since the Civil War.

13 The United States in the Twentieth Century (3) **UC:CSU
Lecture 3 hours.
A historical survey of the major political, economic, intellectual, and cultural movements and events of the twentieth century.

14 Selected Issues of United States History (3) *UC:CSU
Lecture 3 hours.
Treats basic issues in United States history, including a study of the philosophy underlying the Declaration of Independence and the Constitution, the conflicting viewpoints of Hamilton and Jefferson, the causes of the Civil War, the impact of the Industrial Revolution, an evaluation of the Progressive Movement and the New Deal, and the significance of America's emergence as a world power.

15 Economic History of the United States (3) UC:CSU
Lecture 3 hours.
Same as Economics 10. Credit not given for both courses.
Stresses development and change in economic institutions. Considers the nature of American Capitalism and the effects of industrialization on American economic life.

20 History of California and the Pacific Coast (3) UC:CSU
Lecture 3 hours.
Surveys the history of the Pacific Coast of North America from the period of the explorations to the present. Emphasizes especially the cultural, political, economic, and social development of California.

21 History of the Russian People (3) UC:CSU
Lecture 3 hours.
Traces the political, social, economic, and cultural developments of the Russian people from their origins to the present day. Emphasizes in particular the expansion of Russia, the interrelations between Russia, Asia, and the West, and Soviet Russia since 1917.

27 History of Africa (3) UC:CSU
Lecture 3 hours.
Covers the history of Africa from ancient times to the present. Includes the historical ramifications of the African Diaspora to the Western Hemisphere and the special relationship of Africa to the United States.

30 History of Contemporary China (3) UC:CSU
Lecture 3 hours.
Explores contemporary China by examining traditional and post-revolutionary politics, economics, social structures, and ideas. The course raises questions about how China can accommodate elements of the past while building for the future.

40 American History in Film (3) UC:CSU
Lecture 3 hours.
Surveys American history from the Salem Witch trials in the Colonial period up to the Cold War, using both documentary and dramatized films to illustrate key events and ideas in American history.

41 The Afro-American in the History of the United States I (3) *UC:CSU
Lecture 3 hours.
Surveys U. S. history from the early Colonial Era through the Civil War with special emphasis on the contribution of the African-American. Provides a background in the political and social development of the United States for students majoring in the Social Sciences and, in addition, for those who wish to gain a better understanding of the African-American in American civilization. Includes a survey of the United States Constitution.

42 The Afro-American in the History of the United States II (3) **UC:CSU
Lecture 3 hours.
Surveys U. S. history from the end of the Civil War to the present time, with special emphasis on the African-American in the social and political development of American civilization.

43 The Mexican-American in the Political and Social History of the United States I (3) UC:CSU
Lecture 3 hours.
Traces the historical evolution of the Mexican and his culture and institutions to 1865, and surveys the contributions of the Mexican-American to the United States, with particular emphasis on the Southwest, and the causes and consequences of the Mexican-American War.

44 The Mexican-American in the Political and Social History of the United States II (3) UC:CSU
Lecture 3 hours.
Traces the historical evolution of the Mexican-American since 1850 and analyzes the aftermath of the Mexican-American War, immigration from Mexico, the "Bracero" program, the Civil Rights movement, and the contributions of the Mexican American to the American experience.

50 Twentieth Century Europe (3) UC:CSU
Lecture 3 hours.
Surveys the political, economic, social and cultural history of the European nations since 1900 with reference to their relations with the rest of the world.

52 The Role of Women in the History of the U. S. (3) UC:CSU
Lecture 3 hours.
Explores the political, economic, social, and intellectual history of women in the development of the United States from the early colonial era to the present day with special emphasis on their contributions as well as their problems.

77 Hebrew Civilization II (3) UC:CSU
Lecture 3 hours.
Traces the major phases and events in the historical-religious development of the Jewish People from their Mesopotamian origins to the present. The greatest emphasis will be on the last 250 years from the Enlightenment to the emergence of modern Israel.

86 Introduction to World Civilizations I (3) UC:CSU
Lecture 3 hours.
Traces the development and interrelationships of the major world civilizations and their cultural traditions and contributions from the earliest times to the beginning of the era of European expansion in the sixteenth century.

87 Introduction to World Civilization II (3) UC:CSU
Lecture 3 hours.
Traces the development and interrelationships of the major world civilizations and their cultural traditions and contributions from the era of European expansion in the sixteenth century to the present.

185 Directed Study - History (1) †UC:CSU RPT 2

385 Directed Study - History (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in History on a contract basis under the direction of a supervising instructor.

**UC Credit Limit: History 11 and 41 combined, maximum one course.*
***UC Credit Limit: History 12, 13 and 42 combined, maximum one course.*
†UC Credit Limit: No credit if taken after History 11 or 41.

Horticulture, Ornamental

See **Agriculture** course listings 700-899.

Humanities

1 Cultural Patterns of Western Civilization (3) UC:CSU
Lecture 3 hours.
An exploration of our possibilities as human beings and the creative process underlying our greatest achievements in art, music, craftsmanship, religion, literature, philosophy, and scientific exploration, as well as an attempt to see the place of each of these in a total perspective on the human condition.

2 Studies in Selected Cultures (3) †*UC:CSU RPT 1
Lecture 3 hours.
A study in depth of a particular culture such as Modern Great Britain, Imperial China, Southeast Asia, Renaissance Italy, etc. , including historical background, significant cultural trends, and key personalities.

3 The Arts of Contemporary Society (3) UC:CSU
Lecture 3 hours.
A cultural history, including literature, music, visual arts and film of the 20th century. Emphasis is on Western European and American culture and ideas basic to the development of contemporary art.

6 Great Men, Great Eras (3) *UC:CSU RPT 1
Lecture 3 hours.
An interdisciplinary program in the liberal arts, which covers an historical period such as the Renaissance from the perspectives of philosophy, art, music, literature, architecture, science, etc.
THE HUMANITIES CORE CURRICULUM HUMANITY AND WESTERN CULTURE
Humanities 11, 12, 13 and 14.
Designed to meet a large part of the general education requirements for the Associate in Arts degree and for students transferring to four-year institutions. These courses offer a unique opportunity for a comprehensive look at our cultural heritage. Different instructors present the art, history, literature, music, and philosophy of western civilization from prehistoric times to the present. There are no prerequisites, and each course may be taken separately.

11 The Ancient World (6) UC:CSU
Lecture 6 hours.

12 The Middle Ages and the Renaissance (6) UC:CSU
Lecture 6 hours.

13 From the Reformation to the French Revolution (6) UC:CSU
Lecture 6 hours.

14 The 19th and 20th Centuries (6) UC:CSU
Lecture 6 hours.

30 The Beginnings of Civilization (3) UC:CSU
Lecture 3 hours.
Introduces the general concepts of the humanities from ancient times to the Renaissance. Literature, ideas, and art are studied and compared in relation to their background, medium, organization, and style. Stress is placed on awareness of differences in cultural heritages, values, and perspectives as revealed in the Arts.

31 People in Contemporary Society (3) UC:CSU
Lecture 3 hours.
Surveys humanity's cultural development from the Renaissance to the present. Presents general information on the arts, literature, and ideas of the Renaissance, Baroque, Neoclassic, and Romantic periods. Concludes an examination of Twentieth Century culture in particular. Since Humanities 30 and 31 are independent of each other, they need not be taken in successive order.

60 People and Their World: Technology and the Humanities (3) UC:CSU
Lecture 3 hours.
Examines art, music, literature, drama, philosophy, and history in an exploration of the urban environment and society as it has been affected by technology.

61 People and Their World: The Creative Process (3) CSU
Lecture 3 hours.
Surveys humanity's creativity as expressed in myths and dreams and explores works of art and literature to discover the range of humanity's creative instinct. Involves art, music, literature, psychology, drama, philosophy, and history.

88 Cultural Heritage of Los Angeles (3) CSU
Lecture 3 hours.
Examines the unique qualities of the greater Los Angeles area through a study of its geography, archeology, history, art, architecture and ethnic contributions. Classroom presentations will be supplemented extensively with field trips to local sites.

89 Current Musical Dramatic and Art Events (2) CSU RPT 3
Lecture 1 hour; field trips 3 hours.
Enriches the academic experiences in art, dance, drama, and music. Expands cultural awareness of the student by providing opportunities to attend a wide variety of concerts, plays, dance, and art events; and to discuss these with faculty members and guest artists; to concentrate on one area, supplemented by the other three.

185 Directed Study - Humanities (1) †UC:CSU RPT 2

285 Directed Study - Humanities (1) †UC:CSU

385 Directed Study - Humanities (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in humanities on a contract basis under the direction of a supervising instructor.

**UC Credit Limit: Maximum one course.*

Industrial Technology

Industrial Technology courses are listed individually under sub headings, e.g., INDUSTRIAL TECHNOLOGY - MACHINE SHOP

Automotive Service - Listed separately
Drafting (includes CAD)
Electrical Construction and **Maintenance**
Machine Shop
Industrial Technology
Numerical Control (includes CAM)
(Computer Controlled Machine Tools)
Welding
Woodworking/Cabinetmaking

Industrial Technology classes are affiliated with the Society of Manufacturing Engineers and American Welding Society.

Industrial Technology Drafting - Mechanical

105 Blueprint Reading I (3) CSU
Lecture 2 hours; laboratory 2 hours.
Provides training in reading basic engineering blueprints widely used in contemporary manufacturing industries. Both the visualization and interpretation facets of reading are given extensive coverage. Exposure and analysis of common drawing types, views, lines, dimensions, tolerances, callouts, notes, symbology, and revision procedures are included.

112 Applied Technical Drafting I (4) CSU
Lecture 2 hours; laboratory 4 hours.
Instructs in the basic underlying principles and theories of mechanical drawing, the use and care of instruments and equipment, and blueprinting. Topics covered include freehand technical sketching, orthographic projection and basic multiview detail drawings, lettering, dimensioning standards, isometric pictorial drawing, sectional views, auxiliary views, and development of flat patterns.

212 Applied Technical Drafting II (4) CSU
Lecture 2 hours; laboratory 4 hours.
Prerequisite: *Industrial Technology 112.*
Applies the concepts and skills learned in basic drafting to the manufacturing industry. An intermediate level of intensity is engaged that includes oblique pictorial drawing, advanced sectioning, advanced auxiliary, basic assemblies, advanced sheet metal, and technical inking. Includes a study of dimensional tolerancing conventions and specification of screw thread callouts.

217 Applied Computer Drafting I (4)
Lecture 2 hours; laboratory 4 hours.
Prerequisite: *Industrial Technology 112.*
Provides basic training in the theory and practices of elementary computer-aided drafting. Emphasis will be placed on mechanical engineering drawings as they apply to industrial manufacturing disciplines. Analysis of computer types as well as hardware component use and care will be stressed. Both operating and application software is discussed and utilized to represent and specify simple detail drawings.

205 Technical Descriptive Geometry (3)
Lecture 2 hours; laboratory 2 hours.

Provides training in the analysis and solution of orthographic projection problems through application of the fundamental principles of descriptive geometry. Emphasis is placed on exposure to and interpretation of points, lines, and planes in primary, secondary, and successive auxiliary views. Theory and practice are included that involve visualization and graphic representation of intersections, angles, parallelism, perpendicularity, and revolutions.

312 Applied Technical Drafting III (4) CSU
Lecture 2 hours; laboratory 4 hours.

Emphasizes the advanced study of drafting industrial production parts. Includes the drawing of cast and machined details for comprehensive assemblies. Devotes special attention to surface texture specification, revision documentation, working drawings, ansi precision fits for functional holes and shafts, AWS welding symbology, detail assemblies, and geometric dimensioning and tolerancing.

317 Applied Computer Drafting II (4)
Lecture 2 hours; laboratory 4 hours.
Prerequisite: *Industrial Technology 217.*

Utilizes the principles and skills taught in basic computer drafting in the generation of technical drawings that feature an intermediate degree of difficulty. Areas of concentration include simple pictorial drawings, basic assemblies, and sheet metal layouts. Also included are assignments involving advanced multiview details with various sectional and auxiliary view requirements.

Cooperative Education - Work Experience
See listing under Industrial Technology General.

Industrial Technology - Electrical Construction And Maintenance

173 Electrical Codes and Ordinances (3) RPT 1
Lecture 3 hours.

Offers special training for electrical wiremen who desire to become thoroughly familiar with the various codes and ordinances under which they work. The student studies general codes, wiring methods and fittings, and circuit requirements specified in the various ordinances.

273 Electrical Codes and Ordinances II (3) RPT 1
Lecture 3 hours.

Continues codes and ordinances for electrical wiremen. Areas of study include code requirements on equipment installation, motor installations, various types of occupancies, and high voltage circuits.

Industrial Technology - Machine Shop

130 Technology of Metal Machining Processes I (3)
Lecture 1; laboratory 5 hours.
Prerequisites: *It is recommended that Industrial Technology 121 be taken concurrently. Industrial Technology 130 cannot be taken at the same hour in the same semester.*

An introduction to the fundamentals of metal-machining processes. Theory is supplemented with demonstrations and/or practice on: lathes, mills, grinders, drills. The course conveys concepts of metal-machining to: drafterpersons, engineers/

designers, NC programmers/ operators, QC inspectors; and provides entry-level skills to machinists, machine operators, and tool makers.

230 Technology of Metal Machining Processes II (3)
Lecture 1 hour; laboratory 5 hours.
Prerequisites: *Industrial Technology 130; Industrial Technology 121 is recommended as completed or taken concurrently. Industrial Technology 230, 330, and 331 cannot be taken at the same hour in the same semester.*

Increases the depth and breadth of understanding of the theoretical concepts and practical skills introduced in Industrial Technology 130. The students will advance their studies in metallurgy theory and practice, engineering materials, metrology, and conventional machining techniques. EDM will be introduced.

330 Technology of Metal Machining Processes III (3)
Lecture 1 hour; laboratory 5 hours.
Prerequisites: *Industrial Technology 230, Industrial Technology 100 (Industrial Technology majors only). 121 recommended as completed or taken concurrently. Industrial Technology 230, 330, and 331 cannot be taken at the same hour in the same semester.*

Emphasis is placed on the development of skill and concepts learned in Industrial Technology 130 and Industrial Technology 230 for those persons who will be employed in the metal-machining industry. Close tolerance work will be required. Additional techniques such as EDM and jig boring will be introduced.

331 Tool Design For Production (3)
Lecture 1 hour; laboratory 5 hours.
Prerequisite: *Industrial Technology 230. Note: Industrial Technology 230, 330, and 331 cannot be taken at the same hour in the same semester.*

The student studies the tooling and fixturing necessary for production in conventional and Computer Numerical Control (CNC). The course requires a high degree of initiative on the part of the student to complete the course.

Industrial Technology - Numerical Control

Automated and Computer Controlled Machining

140 Fundamentals of CNC Technology (3)
Lecture 1 hour; laboratory 5 hours.
Prerequisite: *Industrial Technology 130 or equivalent experience recommended.*
Acquaints the beginning student in numerical control with the fundamental concepts underlying this new science. Studies the format and manual preparation of tapes for a variety of basic numerical control systems. Provides practical experience in the set up and operation of numerical controlled machine tools employing point-to-point, continuous path and circular interpolation machining control.

242 Introduction to CAD/CAM - Numerical Control (3)
Lecture 3 hours.
Prerequisite: *Industrial Technology 112 or Industrial Technology 140 with a grade of "C" or better.*
Introduces fundamental concepts of computer-aided design and computer-aided manufacturing to the student pursuing specialized work in architecture, drafting, engineering or numerical control programming.

244 CNC Programming and Machine Operation - Lathe (3)
Lecture 1 hour; laboratory 5 hours.
Prerequisite: *Industrial Technology 140 or equivalent experience, plus Industrial Technology 230 or concurrent enrollment.*
Continues the study of N/C part program preparation begun in Industrial Technology 140 and develops the techniques of planning for efficient operation sequencing. Compares N/C, CNC and DNC, including examination of these techniques in relation to CAD/CAM. Introduces computer-assisted N/C part programming languages, emphasizes writing and running CNC Lathe programs.

248 CNC Programming and Machine Operation - Mill (3)
Prerequisite: *Industrial Technology 140 or equivalent experience.*
Lecture 1 hour; laboratory 5 hours.
Acquaints the advanced student with three axis CNC applications involving manufacturing planning, tooling design and/or specification, CNC mill programs employing full 3-axis positioning and implementation of programs using CNC mill equipment in the CAM lab. Students will learn and practice micro-computer assisted part programming of CNC mill.

444 Projects Laboratory-CNC Lathe Programming (3)
Lecture 1 hour; Laboratory 5 hours.
Prerequisite: *Industrial Technology 140 and 244 with a grade of "C" or better.*
Develops skills in the techniques of design, planning, and execution of computer numerical control programs for a CNC lathe. Part programs and CNC programming practices not possible in Industrial Technology 244 will be covered. Emphasis is placed on developing a project to be programmed and machined using a CNC lathe, requiring extensive job planning, independent study and development.

448 Projects Laboratory-CNC Mill Programming (3)
Lecture 1 hour; Laboratory 5 hours.
Prerequisite: *Industrial Technology 140 and 248 with a grade of "C" or better.*
Develops skills in the techniques of design, planing, and execution of computer numerical control programs for a cnc mill. Part programs and CNC programming practices not possible in Industrial Technology 248 will be covered. Emphasis is placed on developing a project to be programmed and machined using a cnc mill, requiring extensive job planning, independent study and development.

185 Directed Study - Numerical Control (1) RPT 2

285 Directed Study - Numerical Control (2)

385 Directed Study - Numerical Control (3)
Conference 1 hour per unit.
Allows students to pursue Directed Study in Numerical Control on a contract basis under the direction of a supervising instructor.

Cooperative Education - Work Experience
See listing under Industrial Technology - General.

Industrial Technology - Welding

Note: Credit for technical courses may or may not be transferable in other than major or related fields.

161 General Welding I (3)
Lecture 1 hour; laboratory 5 hours.
Gives the beginning student a solid foundation in the principles of welding and cutting, and electric arc welding. Emphasizes safety along with related information on equipment, methods and materials.

261 General Arc Welding I (3)
Lecture 1 hour; laboratory 5 hours.
Prerequisite: *Industrial Technology 161.*
Provides the student with the basic principles and skills necessary to perform general arc welding operations successfully.

262 General Arc Welding II (3)
Lecture 1 hour; laboratory 5 hours.
Prerequisite: *Industrial Technology 261.*
Continues the work begun in General Arc Welding I. Reviews and extends information and skill training regarding safety, blueprints, materials, methods, and equipment.

361 Inert Gas Arc Welding I (3)
Lecture 1 hour; laboratory 5 hours.
Prerequisites: *Industrial Technology 261 and 262.*
Gives the student a solid foundation in the principles and skills necessary to perform weldments successfully using Gas Tungsten Arc Welding (GTAW) and Gas Metal Arc Welding (GMAW) on ferrous and nonferrous metals. Emphasizes GTAW.

362 Inert Gas Arc Welding II (3)
Lecture 1 hour; laboratory 5 hours.
Recommended: *Industrial Technology 162, 262, and 361.*
Completes the solid foundation in the principles and skills necessary to perform weldments successfully using Gas Tungsten Arc Welding (GTAW) and Gas Metal Arc Welding (GMAW), on ferrous and nonferrous metals. Emphasizes GTAW.

461 Advanced Arc Welding I (3)
Lecture 1 hour; laboratory 5 hours.
Prerequisite: *Completion of Industrial Technology 261, 262, 361, and 362 with grades of "C" or better.*
Gives the student the depth of training for AWS-L. A. City Certification in art welding of structural steel. Provides related study for a broad understanding of the welding processes as well as pertinent codes. Acquaints the student with automatic and semi-automatic welding processes.

462 Advanced Welding II (3)
Lecture 1 hour; laboratory 5 hours.
***Prerequisites:** Industrial Technology 461 recommended, with a grade of "C" or better.*
Provides in depth training to prepare for AWS-LA City Certification in arc welding of structural steel. Related study for a broad understanding of the welding processes and pertinent codes. Applies automatic and semi-automatic welding processes.

Cooperative Education - Work Experience
See listing under Industrial Technology - General.

Industrial Technology - Woodworking

120 Basic Woodworking (4) CSU
Lecture 3 hours; laboratory 3 hours.
Covers the care and use of hand tools and machines as well as fasteners, adhesives and basic cabinet assembly. Also includes planning and stock billing. Emphasizes safety.

220 Machine Woodworking (4) CSU RPT 1
Lecture 3 hours; laboratory 3 hours.
Deals with advanced wood technology, planning and practice in the production of cabinetry and custom furniture making.

320 Cabinetmaking and Millwork Technology (4) CSU
Lecture 2 hours; laboratory 4 hours.
***Prerequisite:** Industrial Technology 220.*
Studies safe use of tools, machines and materials related to cabinetmaking. Includes lecture, discussion, demonstrations, evaluation and student performance in the following area: manufactured materials, fasteners, basic casework, kitchen cabinets, stock billings, joinery, integration of components, plastic laminates, and surface preparation. Instruction covers occupations, design planning and construction techniques.

322 Painting and Finishing (2) CSU
Lecture 1 hour; laboratory 3 hours.
Studies common wood finishes and techniques of application,with practical experience in staining, filling, sealing, shellacking, varnishing, lacquering, and synthetic resins. Includes some refinishing information.

420 Furniture Repair and Refinish (2) CSU
Lecture 1 hour; laboratory 3 hours.
***Prerequisite:** Industrial Technology 120 with a grade of "C" or better.*
A comprehensive study of the techniques in refinishing used and antique furniture along with the practical skills in repairing scratches, dents, burns, veneer and structural damage.

Italian

1 Elementary Italian I (5) UC:CSU (CAN ITAL 2)
Lecture 5 hours.
***Recommended:** Eligibility for English 28.*
***Note:** Students with previous knowledge of Italian should not enroll in Italian 1 or 2, but in a higher level. Native speakers should enroll in Italian 3, 4, 5, or 6.*
Normally offered in the Fall semester only.
Stresses the fundamentals of pronunciation and the ability to understand, speak and write simple Italian. Includes basic structural aspects and incorporates basic facts on the culture, customs and geography of Italy and an introduction to Italian songs and proverbs. Corresponds to the first year of high school Italian.

2 Elementary Italian II (5) UC:CSU (CAN ITAL 4)
Lecture 5 hours.
***Prerequisite:** Italian 1 or one year of high school Italian, with a grade of "C" or better.*
***Recommended:** Eligibility for English 28.*
***Note:** Students with previous knowledge of Italian should not enroll in Italian 1 or 2, but in a higher level. Native speakers should enroll in Italian 3, 4, 5, or 6.*
Normally offered in the Spring semester only.
Continues to stress the fundamental abilities to understand, speak, read and write simple Italian. Continues to include basic structural aspects and expands practical conversational vocabulary and competency in using it. Continues to incorporate information on the culture and customs of Italy, and an introduction to Italian songs and proverbs. Corresponds to the second year of high school Italian.

3 Intermediate Italian I (5) UC:CSU (CAN ITAL 8)
Lecture 5 hours.
***Prerequisite:** Italian 2 or two years of high school Italian with a grade of "C" or better.*
***Recommended:** Eligibility for English 28.*
***Note:** Concurrent enrollment in Italian 8 is strongly recommended for non-native speakers.*
Normally offered in the Fall semester only.
Reviews the elementary structure studied in Italian 1 and 2 and continues the grammar necessary for communication and for comprehension of both spoken and written Italian. Promotes fluency in Italian by immersing the student in practical situations which require extensive use of the language and by building on vocabulary and related skills through them. Continues the study of Italian life, civilization and culture and provides special attention to representative Italian literature.

4 Intermediate Italian II (5) UC:CSU (CAN ITAL 10)
Lecture 5 hours.
***Prerequisite:** Italian 3 or three years of high school Italian with a grade of "C" or better.*
***Note:** Concurrent enrollment in Italian 8 is strongly recommended for non-native speakers.*
Normally offered in the Spring semester only.
Expands the structural concepts studied in Italian 1, 2 and 3. Develops additional vocabulary and related skills for maximum comprehension and expression. Provides greater depth in Italian literature with wider range of reading. Emphasizes discussion and analysis of the material. Continues the study of Italian life, culture and civilization.

5 Advanced Italian I (5) UC:CSU
Lecture 5 hours.
***Prerequisite:** Italian 4 with a grade of "C" or better.*
***Note:** Concurrent enrollment in Italian 8 is strongly recommended for non-native speakers.*
Normally offered in the Spring semester only.
Introduces some of the important movements in Italian literature. It includes reading prose and poetry from representative Italian authors and continues the study of advanced composition and grammar.

6 Advanced Italian II (5) UC:CSU
Prerequisite: Italian 5 with a grade of "C" or better.
Note: Concurrent enrollment in Italian 8 is strongly recommended for non-native speakers.
Normally offered in the Spring semester only.
Lecture 5 hours.
Concerns works of Italian literature selected by students and instructor on the basis of relevance, interest and historical impact. Emphasis is on individual study and research shared in the form of reports both oral and written. This serves as a basis for the study of advanced composition, grammar and style.

8 Conversational Italian (2) CSU RPT 3
Lecture 2 hours.
Prerequisite: Italian 2 or equivalent with a grade of "C" or better.
Provides opportunities for practical conversation on everyday topics, current events, and cultural material, and for expansion of vocabulary according to student interest.

185 Directed Study - Italian (1) †UC:CSU RPT 2

285 Directed Study - Italian (2) †UC:CSU

385 Directed Study - Italian (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Italian on a contract basis under the direction of a supervising instructor.

International Business

1 Introduction to International Trade (3) CSU
This course gives a comprehensive overview of international business including basic trade theory, international marketing, export/import financing, the foreign currency markets, the operation and management of multinational firms, and the cultural aspects of global trade. It emphasizes the practical application of basic international trade topics.

6 International Marketing I (3)
This course presents the challenges of marketing in the global marketplace and the most effective approaches to these challenges. It explores the top potential exports and the most promising markets through the use of current market data and actual case studies of international marketing companies.

18 Basics of Exporting (1)
This course is designed to provide the student with the basic information needed for an understanding of the export process. The course reviews the most important U.S. Government import regulations and gives the student familiarity with import documentation and terminology.

19 Basics of Importing (1)
This course is designed to give the student a solid understanding of the import process, including import documentation, and U.S. Government customs regulations. The course guides the student through the process of creating a basic import business plan.

20 International Finance (2)
This course provides a perspective of finance theories as they apply to international transactions. It covers the methods of international payment, collections, financial risks, and tax considerations. The course covers the foreign exchange markets, the basics of working capital management and capital budgeting for foreign projects.

21 The Global Business Environment (3)
A survey of the effects on international business by the cultural, political, geographical, and technological forces of the global environment. In addition, the course provides many practical guidelines to help those who are interested in establishing successful business relationships anywhere in the world.

22 International Management (3)
This course examines the management functions in a global context. It describes the environment in which international managers operate, the role of culture and its effects on managerial issues, and the challenges of communicating effectively and achieving organizational objectives in an increasingly multicultural environment.

Japanese

1 Elementary Japanese I (5) UC:CSU (CAN JAPN 2)
Lecture 5 hours.
***Recommended:** Eligibility for English 28. Note: Students with previous knowledge of Japanese should not enroll in Japanese 1 or 2, but in a higher level. Native speakers should enroll in Japanese 3 or 4.*
Stresses the fundamentals of aural comprehension and pronunciation, basic vocabulary, useful phrases and the ability to speak, read and write simple Japanese. Includes basic facts on customs, culture and geography.

2 Elementary Japanese II (5) UC:CSU (CAN JAPN 4)
Lecture 5 hours.
***Prerequisite:** Japanese 1 with a grade of "C" or better.*
***Recommended:** Eligibility for English 28.*
***Note:** Students with previous knowledge of Japanese should not enroll in Japanese 1 or 2, but in a higher level. Native speakers should enroll in Japanese 3 or 4.*
Continues the study of fundamentals of aural comprehension, basic vocabulary and the ability to speak, read and write simple Japanese. Includes orientation to customs, culture and geography.

3 Intermediate Japanese I (5) UC:CSU
Lecture 5 hours.
***Prerequisite:** Japanese 2.*
Normally offered in the Fall semester only.
Continues the study of grammar and vocabulary building for conversational fluency and written composition. Begins the study of short narrative writings.

4 Intermediate Japanese II (5) UC:CSU
Lecture 5 hours.
***Prerequisite:** Japanese 3.*
Normally offered in the Fall semester only.
Continues the study of grammar and vocabulary building for conversational fluency and written composition. Continues the study of short narrative writings. Includes the study of Japanese culture.

8 Elementary Conversational Japanese (2) CSU RPT 3
Lecture 2 hours.
***Prerequisite:** Japanese 1 with a grade of "C" or better.*
Provides opportunity for oral communication in everyday settings about current events, general cultural materials and individual personal interests.

27 Cultural Awareness Through Advanced Conversation (3) UC:CSU
Lecture 3 hours.
***Prerequisite:** Japanese 3.*
Develops oral facility and cultural awareness, emphasizing speaking and understanding Japanese in everyday situations common to life in Japan. Good grasp of grammar is a prerequisite. Prepares student to work in Japanese company or related business, or to live in Japan.

185 Directed Study - Japanese (1) †UC:CSU RPT 3
Conference 1 hour per unit
Allows students to pursue Directed Study in Japanese on a contract basis under the direction of a supervising instructor.

Journalism

100 Social Values in Mass Communication (3) UC:CSU (CAN JOUR 4)
Lecture 3 hours.
A general interest survey and evaluation of the mass media in economic, historical, political, psychological and social terms. Focus is to help the media consumer better understand today's mass communications: newspapers, radio, television, motion pictures, magazines, advertising and public relations. Course content discusses relationships, ethics, rights and responsibilities of media in today's society.

101 Collecting and Writing News (3) CSU (CAN JOUR 2)
Lecture 3 hours.
Recommended: *Concurrent enrollment in Journalism 100 for all journalism majors.*
Stresses instruction and practice in news gathering with particular emphasis on documentation, research and news writing. Adherence to professional writing style; legal and ethical aspects of the profession is included. Required of all journalism majors.

108 Article Writing (3) CSU
Lecture 3 hours.
Offers instruction in the writing of material for a magazine, including articles, editorials, and reviews suitable for publication; includes practice in editing and the use of illustrative materials.

202 Advanced Newswriting (3) CSU
Lecture 3 hours.
Prerequisite: *Journalism 101 with a grade of "C" or better.*
Recommended: *Concurrent enrollment in Journalism 217 for journalism majors.*
Provides the student with principles and practice in writing specialized types of newspaper stories and increases mastery of fundamental reporting techniques. Interpretative writing skills, editorial writing, and feature writing are included. Required of all journalism majors.

216 Copyreading and Headline Writing (3) CSU
Lecture 2 hours; laboratory 3 hours.
Prerequisite: *Journalism 101 with a grade of "C" or better.*
Recommended: *Concurrent enrollment in Journalism 202 for journalism majors.*
Offers study and practice in analysis of structure and effectiveness of written materials, rewriting, correction of errors, proofreading, headline writing, news and picture evaluation, and page design. Opportunity is provided to work with the staff on the campus newspaper. Required of all journalism majors.

217 Publication Laboratory (2) CSU RPT 3
Laboratory 6 hours.
Prerequisite: *Journalism 101 with a grade "C" or better; concurrent enrollment in Journalism 202 or 218 or Photography 21.*
Stresses constructive criticism of students in writing style and news evaluation. Publication production plans are developed. The instruction is directed by newspaper adviser, editor and staff members.

218 Practical Editing (3) CSU RPT 3
Lecture 1 hour; supervised activity 6 hours.
Prerequisite: *Journalism 202 with a grade of "C" or better.*
Recommended: *Prior or concurrent enrollment in Journalism 216 for Journalism majors.*
Provides practical instruction and practice in writing and editing the campus newspaper. Editions are evaluated in regularly scheduled class meetings.

219 Techniques for Staff Editors (1) CSU RPT 2
Laboratory 3 hours.
Prerequisite: *Journalism 101 with a grade of "C" or better, and concurrent enrollment in Journalism 202 or 218 or Photography 21.*
Offers instruction for campus newspaper editors in editorial writing and analysis of editorial problems. Emphasis is placed on formulating editorial policy.

220 Magazine Editing (3) CSU RPT 3
Prerequisite: *Journalism 101 with a grade of "C" or better and concurrent enrollment in Journalism 202 or 218 or Photography 21.*
Lecture 2 hours; laboratory 3 hours.
Presents the theory and practice of writing and editing a magazine. Artistic design, principles of harmony and unity, and creativity in layout are stressed. Writing and editing of copy, designing pages, selecting photographs and other illustrations and design materials, preparing them for production; arranging production schedules; and other aspects of publishing are included.

221 News Photography (4) CSU RPT 3
Lecture 2 hours; laboratory 6 hours.
Same as Photography 21. Credit not given for both courses.
Prerequisite: *Photography 11 and 20 with a grade of "C" or better.*
Gives practical experience in the taking and processing of news and feature pictures, emphasizing the use of cameras normally employed in photo-journalism. Affords students the opportunity to take, develop and print pictures for the college newspaper and magazine.

185 Directed Study - Journalism (1) CSU RPT 2

285 Directed Study - Journalism (2) CSU

385 Directed Study - Journalism (3) CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Journalism on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - Journalism (1) CSU RPT 3

921 Cooperative Education - Journalism (2) CSU RPT 3

931 Cooperative Education - Journalism (3) CSU RPT 3

941 Cooperative Education - Journalism (4) CSU RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Limits to transfer credit: *See Cooperative Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

Law

For additional law courses, see Business and Sociology.

3 Civil Rights and the Law (3) UC:CSU
Lecture 3 hours.
Offers comparative and analytical study of the law and related problems concerning Civil Rights. Due process of law, freedom of expression, freedom of religion, racial equality, and democratic processes are the topics under consideration, with emphasis on recent court decisions and international trends.

Learning Skills

Note: Open Entry/Open Exit and Credit/No-Credit courses.

1 Reading (3) (NDA) RPT 3
Laboratory 9 hours.
Individualized, self-paced reading remediation for ESL students and/or native speakers. Program ranges from learning to read to improving comprehension and interpretation. Tutors, computer and audio-cassette programs supplement learning.

2 English Fundamentals (3) (NDA) RPT 3
Laboratory 9 hours.
Recommended: *Concurrent enrollment in Learning Skills 7.*
Individualized, self-paced work on punctuation, sentence structure and correctness, supplemented by computer-assisted instruction.

3 Vocabulary Development (5) (NDA) RPT 3
Lecture 5 hours.
Individualized, self-paced text and computer-assisted vocabulary study for ESL students and native speakers. Programs ranging from basic to college-advanced levels are tailored to student need.

4 The Mechanics of Spelling (1) (NDA) RPT 3
Laboratory 3 hours.
Individualized, self-paced study of spelling rules, word groups, most frequently misspelled words. Programmed texts, computer- assisted instruction supplement study.

5 English As A Second Language: Fundamentals (1) (NDA)
Laboratory 2 hours.
Small group workshops and tutorial practice in largely oral English communication. Emphasis on vocabulary building and simple grammar structures. Students are encouraged to generate relevant English speech and writing.

7 Basic Composition (3) (NDA)
Laboratory 9 hours.
Small group workshop (4-10 people) in all types of writing, from journal to research paper. ESL and native-speaking students participate in exercises, writings, peer response, as well as work individually at their own pace. Tutors, computer programs supplement workshop activities. Preparation for English 84-87 or English 21.

10 Mathematics Fundamentals (3)RPT 3 (NDA)
Laboratory 5 hours.
Individualized, self-paced instruction in math from whole number operations to algebra and geometry. Tutorial and computerized math programs provide review, remediation and/or practice.

185 Directed Study - Learning Skills (1) (NDA) RPT 2
Conference 1 hour per unit.
Credit Limit *A maximum of 3 units Directed Study in Learning Skills may be taken for credit.*
Allows students to pursue Directed Study in Learning Skills on a contract basis under the direction of a supervising instructor.

Life Science

Life Science courses are listed under the headings of:
Anatomy
Biology
Microbiology
Oceanography
Physiology

Linguistics

1 Introduction to Language and Linguistics (3) UC:CSU
Lecture 3 hours.
Same as Anthropology 104. Credit not given for both courses.
This introductory course in Linguistics surveys the great variety of ways humans communicate both verbally and non-verbally. Focuses on the structure, function, and history of language, with selections on the sociology and psychology of language, language learning, and the origins and evolution of language.

Management

2 Organization and Management Theory (3) CSU
Lecture 3 hours.
Uses the case method to study problems in the organization and management of business. Emphasizes correlation of operating functions, appraising business conditions, sales, procurement, personnel, financial policies and facilities.

6 Public Relations (3) CSU RPT 1
Lecture 3 hours.
Covers essentials for organizing and operating a public relations program. Includes study of the relations with the community, customers, stock holders and news media. Evaluates communication techniques used to improve public relations and create a favorable public image.

13 Small Business Management I (3) CSU
Lecture 3 hours.
Presents a systematic approach to successful small business operation. Covers personnel evaluation, pre-ownership preparation, management and leadership, financing, location, taxation, records, employees, purchasing, advertising, sales and credit. Emphasizes adequate planning and preparation for success.

31 Human Relations for Employees (3) CSU
Lecture 3 hours.
Covers the practical application of psychological and sociological principles to the study of human relation in business and industry. Emphasizes case studies.

33 Personnel Management (3) CSU
Lecture 3 hours.
Consists of a critical examination of the principles, methods, and procedures related to the effective utilization of human resources in organizations. Includes the management of employment recruiting, testing, selection and placement; job evaluation; wage and salary administration; labor relations and communication; performance evaluation; promotion and transfer; accident prevention; labor law and legislation; benefits and services; discipline, motivation and morale.

48 Management Systems and Procedures (3) CSU
Lecture 3 hours.
Introduces the need for management systems and procedures and their establishment. Emphasizes the relationship of the systems functions to business management. Covers case studies for systems anaysis and solution, records, management, design and control of forms and reports, procedures, manuals, reproduction processes, Electronic Data Processing, and the principles of Integrated Data Processing and Operations Research.

Cooperative Education - Work Experience
See Business - Cooperative Education.

Marketing

1 Principles of Selling (3) CSU
Lecture 3 hours.
This course emphasizes the principles used in persuasive communication. Consumer buying behavior, presentations, and closing are covered. The course is designed to help students currently involved in sales as well as those seeking to improve their communication skills. Sales presentations, videotapes and case studies are used.

3 Sales Management (3) CSU
Lecture 3 hours.
Covers the role of the sales manager in the management of salespersons and associated activities including sales force organization; salesperson selection, training, and supervision; salesperson compensation and expense; sale potentials, territories, and quotas; sales budgets; sales and sales cost analysis; and evaluation of salesperson performance.

11 Fundamentals of Advertising (3) CSU
Lecture 3 hours.
The student is given a working knowledge of advertising's place in the American economy. The fundamentals of advertising media, advertising agencies, consumer behavior, media strategy, the campaign, sales promotion, and public relations are all covered.

21 Principles of Marketing (3) CSU
Lecture 3 hours.
This course introduces students to various activities in the field of marketing. It provides a broad understanding of the principles involved in the distribution of commodities from the producer to the user or consumer. It covers the consumer market, consumerism, packaging and brands, pricing, wholesaling, retailing, sales promotion, personal selling and international marketing. Presentations, case studies and video tapes are used.

31 Retail Merchandising (3) CSU
Lecture 3 hours.
Covers the retail operation in total including a study of store location, store layout, store organization, merchandise buying, pricing, stock planning and retail sales promotion. Personnel duties and responsibilities are also studied including the work of the department manager, store buyer, merchandise manager, publicity director, store superintendent, and the store comptroller.

Cooperative Education - Work Experience
See Business - Cooperative Education.

Mathematics

MATHEMATICS PLACEMENT TEST:

All students who have not completed a college mathematics course must take an appropriate Mathematics Placement Test at the Pierce College Assessment Center (Campus Center). Contact the Assessment Center at (818) 719-6499 for an appointment and sample tests. Review is essential because the test cannot be taken again for six months.

Placement tests are given at four levels: Algebra Readiness, Elementary Algebra, Intermediate Algebra, and Precalculus. Upon completing the test, students are advised of their recommended placement and given an authorization to enroll in that course. Students seeking authorization to enroll in a course other than that recommended by the assessment test must obtain enrollment authorization from a Mathematics Department advisor, if they have satisfied the prerequisite.

Indicated prerequisites for mathematics courses are not waived on the basis of any assessment test scores.

Mathematics Laboratory for Peer Tutoring

Open to any regularly enrolled student in Pierce College. Mathematics Laboratory is located in Math 1413, 9 a.m. - 2 p.m., Monday - Friday.

105 Arithmetic for College Students (3) (NDA)
Lecture 3 hours.
Reviews the arithmetic essential in college and business. Topics include fractions, decimals, percent, and measurement. The course emphasizes problem solving techniques that are useful in practical situations.

110 Introduction to Algebraic Concepts (5) (NDA)
Lecture 5 hours.
Discusses abstract ideas necessary to understanding algebra and reviews selected topics of arithmetic relevant to algebra. Introduces fundamental notions of algebra including signed numbers, simple equations, and modeling. Includes hands-on laboratories and group work instruction in study skills.

112 Pre-Algebra (3) (NDA)
Lecture 3 hours.
Review of selected topics in arithmetic, including operations on fractions, ratio and proportion, rounding and estimating, geometric formulas. Introduction to algebra, including operations on signed numbers, order of operations and the distributive law, simple equations and modeling.

113 Introduction to Elementary Algebra I (3) (NDA)
Lecture 3 hours.
Prerequisite: *A satisfactory score on the Algebra Readiness Placement test.*
Mathematics 113 and 114 together are equivalent to Mathematics 115 (see the course description for Mathematics 115). Credit is allowed in only one of Mathematics 115 or the 113/114 combination. Concurrent enrollment in Mathematics 113 and 114 is not permitted.

114 Introduction to Elementary Algebra II (3) (NDA)
Lecture 3 hours.
Prerequisite: *Mathematics 113 with a grade of "C" or better.*
Mathematics 113 and 114 together are equivalent to Mathematics 115 (see the course description for Mathematics 115). Credit is allowed in only one of Mathematics 115 or the 113/114 combination. Concurrent enrollment in Mathematics 113 and 114 is not permitted.

115 Elementary Algebra (5)
Lecture 5 hours.
Prerequisite: *A grade of "C" or better in Mathematics 110 or 112, or a satisfactory score on the Algebra Readiness Placement test.*
Includes operations with algebraic expressions, solutions of linear equations and inequalities, systems of linear equations, quadratic equations, relations and functions and their graphs. No credit given for students who have completed Mathematics 116.

116 Algebra Review (3) CSU
Lecture 3 hours.
Prerequisite: *One year of high school algebra or equivalent.*
Reviews the skills of elementary algebra. This course is primarily concerned with manipulative skills, using topics in elementary algebra. No credit given for students who have received credit for Mathematics 115.

119 Introduction to Mathematical Methods (5)
Lecture 5 hours.
Prerequisite: *A grade of "C" or better in Mathematics 110 or 112, or a satisfactory score on the Algebra Readiness Placement test.*
A technology-enhanced course that promotes understanding of fundamental algebraic concepts in realistic settings. Development and critique of simple mathematical models, including linear, quadratic, exponential, and rational functions. Fulfills math competency for AA degree, but does not serve as prerequisite to higher level math courses.

120 Plane Geometry (5)
Lecture 5 hours.
Prerequisite: *Mathematics 115*** or a satisfactory score on the Intermediate Algebra Placement Test, and equivalent high school preparation.*
Covers an introduction to logic and the construction of a formal proof, the study of plane figures such as triangles, parallelograms and other polygons, and circles. Construction methods with compass and straight edge; computations for area and volume.

125 Intermediate Algebra (5)
Lecture 5 hours.
Prerequisite: *Mathematics 115*** with a grade of "C" or better, or equivalent high school preparation and a satisfactory score on the Elementary Algebra Placement Test.*
Includes study of polynomials and rational expressions, including exponents and radicals; solution of equations and inequalities; functions and their graphs; systems of equations; exponential and logarithmic functions; Gaussian elimination; sequences; and complex numbers.

135 Using the Computer for Mathematics (1)
Lecture .5 hour; laboratory 1 hour.
Mathematics 135 is an introduction to how the student can use the computer in mathematics and science classes. The student will learn how to use a computer algebra system to do most of the calculations he or she will encounter in mathematics classes, such as simplifying and evaluating expressions, solving equations, graphing. (Since the department is using 3 different software packages in different courses, students may repeat this course as needed to learn a new package.)

145 Technical Mathematics I (3)
Prerequisite: *Mathematics 105.*
Lecture 3 hours.
Provides an introduction to the practical application of mathematics as needed in industry. Fractions, decimals, percentage, square and square roots, constants, solids, etc. are reviewed. Emphasis is on the solution of technical problems beneficial to those engaged in an industrial trade.

146 Technical Mathematics II (3)
Lecture 3 hours.
Prerequisite: *Mathematics 145 or high school algebra with a grade of "C" or better.*
Reviews algebraic operations. Introduction and study of fundamentals of geometry and trigonometry as related to practical industrial and technical problems.

215 Principles of Mathematics I (for Prospective Elementary School Teachers) (3) UC:CSU (CAN MATH 4)
Lecture 3 hours.
Prerequisite: *Mathematics 120 and 125*** with grades of "C" or better, or equivalent high school preparation and a satisfactory score on the Intermediate Algebra Placement Test.*
Includes problem solving, sets, functions, systems of numeration and number concepts; whole numbers, integers, rational and real numbers together with their algorithms; use of manipulatives; and an introduction to computers. For students planning to teach in the elementary or junior high school.

227 Statistics (4) UC:CSU (CAN STAT 2)
Lecture 4 hours.
Prerequisite: *Mathematics 125*** with a grade of "C" or better, or equivalent high school preparation and a satisfactory score on the Intermediate Algebra Placement Test.*
UC Credit Limit: Combined with Business 15 and Statistics 1, maximum one course.
Discusses averages, variability, graphical techniques, probability, hypothesis testing, sampling, estimation, correlation, prediction, and linear regression. Emphasis is on the collection and analysis of data and how inferences about a population are made from a sample.

230 Mathematics for Liberal Arts Students (3) UC:CSU
Lecture 3 hour.
Prerequisite: *Mathematics 120 and 125*** with grades of "C" or better, or equivalent high school preparation and a satisfactory score on the Intermediate Algebra Placement Test.*
Discusses fundamental concepts from selected topics in mathematics, presented within a historical perspective and indicating relationships between mathematics and other fields. Not for majors in mathematics or the physical sciences.

238 Calculus for Business and Social Science I (5) UC:CSU
Lecture 5 hours.
Prerequisite: *Mathematics 125*** with a grade of "C" or better, or equivalent high school preparation and a satisfactory score on the Intermediate Algebra Placement Test.*
Recommended: *Mathematics 245.*
An introduction to the study of calculus of one variable, differentiation and integration of algebraic and exponential functions, application of differential calculus to modeling and curve sketching, use of integral calculus to determine areas between curves, techniques of integration. Topics of finite mathematics may include an introduction to probability, compound interest and annuities.

239 Calculus for Business and Social Science II (5) UC:CSU
Lecture 5 hours.
Prerequisite: *Mathematics 238 with a grade of "C" or better or equivalent.*
A continuation of Mathematics 238. Topics of multivariable calculus including extrema in two and more variables with and without Lagrange Multiplier techniques and multiple integration methods are presented as well as separable differential equations. Linear systems and an introduction to matrix algebra are also presented.

240 Trigonometry (3) CSU (CAN MATH 8)
Lecture 3 hours.
Prerequisite: *Mathematics 120 and 125*** with grades of "C" or better, or equivalent high school preparation and a satisfactory score on the Intermediate Algebra Placement Test.*
Centers on a study of the six trigonometric functions, including a study of their graphs, inverses of the functions, solution of triangles, models for periodic phenomena, identities, conditional equations, and polar coordinates.

245 College Algebra (3) **UC:CSU (CAN MATH 10)
Lecture 3 hours.
Prerequisite: *Mathematics 120 and 125*** with grades of "C" or better, or equivalent high school preparation and a satisfactory score on the Intermediate Algebra Placement Test.*

Discusses relations, functions and their graphs, matrices and determinants, theory of equations, permutations, combinations, probability, and conic sections.

260 Precalculus (5) **UC:CSU
Lecture 5 hours.
Prerequisite: *Mathematics 240*** with a grade of "C" or better, or equivalent high school preparation and a satisfactory score on the Intermediate Algebra Placement Test.*

UC Credit Limit: *Maximum 4 units.*

Develops properties of the elementary functions, including exponential, logarithmic and trigonometric functions. Graphing is stressed. Elements of analytic geometry, including conics, and discrete topics, sequences and series and induction, are developed.

261 Calculus I (5) *UC:CSU (CAN MATH 18)
Lecture 5 hours.
Prerequisite: *Mathematics 260*** with a grade of "C" or better, or equivalent high school preparation and a satisfactory score on the Precalculus Placement Test.*

Begins a sequence of three courses in calculus. Coverage includes limits, continuity, differentiation and some integration of algebraic and transcendental functions. Applications of the calculus include related rates, maxima and minima of functions of one variable, calculation of areas, volumes, arc length and growth.

262 Calculus II (5) *UC:CSU(CAN MATH 20)
Lecture 5 hours.
Prerequisite: *Mathematics 261*** with a grade of "C" or better, or a score of 3 or higher on the high school Advanced Placement Calculus AB Test.*

Continues the study of calculus begun in Mathematics 261 with attention given to differentiation and integration of trigonometric, inverse trigonometric, logarithmic and exponential functions. Techniques of integration are treated as well as functions expressed in polar and parametric form. Infinite series and expansion of functions into series and complete the course.

263 Calculus III (5) UC:CSU (CAN MATH 22)
Lecture 5 hours.
Prerequisite: *Mathematics 262*** with a grade of "C" or better, or a score of 3 or more on the high school Advanced Placement Calculus BC Test.*

Concludes the study of calculus begun in Mathematics 261. The concepts of the derivative and the definite integral are extended to functions of several variables in the form of partial derivatives and multiple integrals. In addition, the theory of limits, derivatives, and integrals are extended to vector-valued functions. Topics in vector calculus such as vector fields, line integrals, divergence and curl, Green's, Stoke's, and the Divergence theorems are treated.

270 Linear Algebra (3) UC:CSU (CAN MATH 26)
Lecture 3 hours.
Prerequisite: *Mathematics 262*** with a grade of "C" or better. Mathematics 263 is strongly recommended.*

Covers vector spaces, linear transformations and matrices, matrix algebra, determinants, solutions of systems of equations, eigenvectors and eigenvalues.

275 Ordinary Differential Equations (3) UC:CSU(CAN MATH 24)
Lecture 3 hours.
Prerequisite: *Mathematics 263*** with a grade of "C" or better.*

Includes an introduction to first, second and higher order linear differential equations, operator methods, series solutions, the gamma function, Laplace transform techniques, Boundary value problems, and numerical methods with an emphasis on applications.

185 Directed Study - Mathematics (1) †UC:CSU RPT 2

285 Directed Study - Mathematics (2) †UC:CSU

385 Directed Study - Mathematics (3) †UC:CSU
Conference 1 hour per unit.

Allows students to pursue Directed Study in Mathematics on a contract basis under the direction of a supervising instructor.

**UC Credit Limit: Combined with Mathematics 261 and 262, maximum 2 courses.*
***UC Credit Limit: Combined with Mathematics 260, maximum 4 units.*
****Or the equivalent course at an accredited college or university.*

Media Arts

Media Arts courses are listed separately under the following headings:

Cinema
Journalism
Photography
Public Relations

Meteorology

3 Introduction to Weather and Climate (3) UC:CSU
Lecture 3 hours.
Same as Geography 3. Credit not given for both courses.

Studies the nature and causes of weather phenomena including wind,clouds, rain, lightning, tornadoes and hurricanes, solar energy, composition of the atmosphere, causes of air pollution, weather modification, the impact of weather on the human environment, and introduction to climate.

4 Introductory Meteorology Laboratory (2) UC:CSU
Lecture 1 hour; laboratory 2 hours.
Prerequisite: *Geography 3 or Meteorology 3 or concurrent enrollment in either course.*

Stresses practical use of meteorological instruments and their observation. Practical exercises in surface observations; upper air observations; weather codes; and weather map construction and analysis.

Normally offered in the Spring semester only.

185 Directed Study - Meteorology (1) †UC:CSU RPT 2

285 Directed Study - Meteorology (2) †UC:CSU

385 Directed Study - Meteorology (3) †UC:CSU
Conference 1 hour per unit.
Prerequisite: *Geography 3.*

Allows students to pursue Directed Study in Meteorology on a contract basis under the direction of a supervising instructor.

Microbiology

1 Introductory Microbiology (5) *UC:CSU (CAN BIOL 14)
Lecture 3 hours; laboratory 6 hours.
***Note:** A total of 5 units given for Microbiology 1 and 20.*
***Prerequisite:** Biology 3 or 6 and Chemistry 51 with a grade "C" or better.*
Presents fundamentals of microbiology. Includes history, survey of microbes, morphology, metabolism, genetics, sterilization and disinfection, as well as host-pathogen relationships nd fundamentals of virology and immunology. Laboratory techniques stress handling, isolating, staining, enumerating and identifying microbes. Students explore microbes in air, water, and food with particular emphasis on medical microbiology and the major etiological agents of disease.

20 General Microbiology (4) *UC:CSU
Lecture 3 hours; laboratory 3 hours.
***Note:** A total of 5 units given for Microbiology 1 and 20.*
***Prerequisite:** Biology 3 or 6 and Chemistry 51 or equivalent with a grade of "C" or better.*
Presents Microbiology as an investigative discipline that deals with microbial ubiquity, morphology and ultrastructure, taxonomy, cultural requirements, metabolism, genetics and roles in the disease process. The regimen for the identification of unknown microorganisms, control, inhibition and killing of microbes through aseptic transfer, sterilization and chemotherapy, interactions of microbes with immune defense and roles of public health procedures in protecting human and animal populations from disease are also stressed.

**UC Credit Limit: Combined Microbiology 1 and 20, maximum one course.*

Modern Languages

Modern Language courses are listed separately under the headings of:
American Sign Language
French
Italian
Japanese
Spanish

Music

Check with the Department or Counseling Office for transferability of courses to four-year institutions and for unit limitations of courses accepted by both University of California and CSUN. All Music Majors are required to enroll in a performing group each semester (Music 501, 521, 531, 541, 561, 563, 721, 741, 745). Musical performance classes study different literature each semester. Also, musical growth is in no sense completed in a single semester. For these reasons it is educationally sound for a student to repeat a musical performance course.

101 Fundamentals of Music (3) UC:CSU
Lecture 3 hours.
Consists of a study of the rudiments of musical notation, scales, keys, intervals, common musical terms, ear training and beginning sight singing.

111 Music Appreciation I (3) UC:CSU
Lecture 3 hours.
Provides a survey of music considering the formal development of musical ideas and their relationship to cultural life.

112 Music Appreciation II (3) UC:CSU
Lecture 3 hours.
***Prerequisite:** Music 111.*
Offers a continuation of Music 111, stressing the forms and styles of music.

121 Music History and Literature I (3) UC:CSU
Lecture 3 hours.
***Note:** Students should have some familiarity with 18th century harmonic practice.*
Offered Fall semesters.
Traces the history and development of musical thought from Gregorian Chant to the dawn of Romanticism with Beethoven. Emphasizes extensive listening through recordings and concerts. Designed primarily for music majors and those with considerable musical background.

122 Music History and Literature II (3) UC:CSU
Lecture 3 hours.
***Note:** Students should have some familiarity with 18th century harmonic practice.*
Offered Spring semesters.
Studies styles and forms beginning with the great Romantic composers and concluding with the music of the present day. Designed primarily for music majors and those with some musical background.

152 Current Musical Events (1) CSU RPT 3
Laboratory 2 hours.
Attendance at local concerts required.
Enriches the student's musical experiences through opportunities to listen to a wide variety of music. Consists of demonstrations and lectures by faculty, students, and guest artists. Offers previews of current concerts.

161 Introduction to Electronic Music (3) CSU
Lecture 2 hours; laboratory 2 hours.
This exploratory course emphasizes the application of musical acoustics to the music synthesizer. Technical, compositional, and performance skills utilizing voltage controlled and digital synthesizers, MIDI application, and recording techniques are introduced and developed.

181 Applied Music I (.5) UC:CSU
Lecture 1 hour.
***Corequisite:** Concurrent enrollment in a harmony class (Music 201, 202, 203 or 223).*
Preparation and performance of musical selections. Lecture and discussion of various aspects of public performance.

182 Applied Music II (.5) UC:CSU
Lecture 1 hour.
***Prerequisite:** Music 181.*
Continuation of Music 181.

183 Applied Music III (.5) UC:CSU
Lecture 1 hour.
***Prerequisite:** Music 182.*
Continuation of Music 182.

184 Applied Music IV (.5) UC:CSU
Lecture 1 hour.
***Prerequisite:** Music 183.*
Continuation of Music 183.

200 Introduction to Music Theory (4) UC:CSU
Consists of a study of the rudiments of music notation, structure of music, elements of singing, ear training and elementary piano. Prepares music majors to qualify for Music 201 and Music 211.

201 Harmony I (3) UC:CSU
Lecture 3 hours.
Note: *Students must be familiar with notation, scales, intervals, keys and common musical terms. Concurrent enrollment in Music 211 and a major performing ensemble (Music 501, 531, 721, 741 or 745) is strongly recommended for music majors.*
Concerns diatonic harmony which includes a study of triads and their inversions. Introduces nonchordal tones through harmonization of simple given parts. Includes harmonic analysis.

202 Harmony II (3) UC:CSU
Lecture 3 hours.
Prerequisite: *Music 201 and 211. Corequisite: Music 501, 531, 721, 741, or 745.*
Continues Music 201, including a study of secondary triads, modulation, all forms of dominant harmony, and the sequence.

203 Harmony III (3) UC:CSU
Lecture 3 hours.
Prerequisite: *Music 202 and 212.*
Corequisite: Music 501, 531, 721, 741, or 745.
Continues Music 202 and is primarily a study of nondominant seventh chords, the Neopolitan and augmented sixth chords and other chromatic harmonies.

211 Musicianship I (2) UC:CSU
Lecture-Performance 3 hours.
Prerequisite: *Music 101 or equivalent with a grade of "C" or better.*
Note: *Students must be familiar with notation, scales, intervals, keys and common musical terms.*
Development of sight reading, dictation and keyboard skills.

212 Musicianship II (2) UC:CSU
Lecture-Performance 3 hours.
Prerequisite: *Music 211 with a grade of "C" or better.*
Continuation of Music 211.

213 Musicianship III (2) UC:CSU
Lecture-Performance 3 hours.
Prerequisite: *Music 212 with a grade of "C" or better.*
Continuation of Music 212.

214 Musicianship IV (2) UC:CSU
Lecture-Performance 3 hours.
Prerequisite: *Music 213 with a grade of "C" or better.*
Continuation of Music 213.

221 Counterpoint I (3) UC:CSU
Lecture 3 hours.
Prerequisite: *Music 201 and 211 with grades of "C" or better.*
Covers two and three-part modal counterpoint based upon sixteenth century polyphony.

222 Counterpoint II (3) UC:CSU
Lecture 3 hours.
Prerequisite: *Music 201 and 211 with grades of "C" or better.*
Covers two and three-part tonal counterpoint based upon the polyphony of the Baroque period.
Offered in the Spring semesters.

223 20th Century Compositional Techniques (3) UC:CSU
Lecture 3 hours.
Prerequisite: *Music 203.*
Provides an opportunity for the gifted and creative student to experiment with new harmonic techniques of the 20th century. Includes an introduction to analytical techniques and principles of musical composition.

225 Basic Conducting (2) UC:CSU RPT 2
Lecture-Performance 3 hours.
Note: *Students must be familiar with musical notation.*
Considers the basic problems in conducting both choral and instrumental musical ensembles. Explores various conducting responsibilities including rehearsal technique, beat patterns, cueing and expressive gestures.

226 Choral Conducting (2) CSU
Lecture-Performance 3 hours.
Note: *Students must be familiar with musical notation.*
Considers the problems in the conducting of community singing and choral works suitable for school and church choral groups.
Studies the techniques of the baton and the use of the left hand for expressive purposes.

231 Orchestration and Arranging I (3) UC:CSU (CAN MUS 22)
Lecture 3 hours.
Prerequisite: *Music 201.*
Gives the student an introduction to the instruments of the orchestra and band and how to score for them in various combinations.

232 Orchestration and Arranging II (3) UC:CSU (CAN MUS 24)
Lecture 3 hours.
Prerequisite: *Music 231.*
Continuation of Music 231. Offers the student an opportunity to advance the techniques learned in Music 231.

241 Music Notation and Copying I (1) CSU
Lecture 1 hour.
Affords practical experience in the techniques of notating and copying music.

242 Music Notation and Copying II (1) CSU
Lecture 1 hour.
Prerequisite: *Music 241 with a grade of "C" or better.*
Continuation of Music 241.

243 Music Notation and Copying III (1) CSU
Lecture 1 hour.
Continuation of Music 242.

244 Music Notation and Copying IV (1) CSU
Lecture 1 hour.
Continuation of Music 243.

250 Music Performance Workshop (.5) CSU RPT 3
Lecture-Performance 3 hours.
Preparation and performance of musical selections. Lecture and discussion of various aspects of public performance.

251 Jazz Improvisation Workshop (.5) UC:CSU RPT 3
Lecture-Performance 3 hours.
Note: *Students must be able to play a jazz instrument or voice.*
Studies scale and chordal structures involved in jazz improvisation. Includes practical application in small group performances.

261 Electronic Music Workshop (3) CSU RPT 2
Lecture 2 hours; Laboratory 2 hours.
Note: *Students must be familiar with basic concepts of digital synthesis and MIDI application.*
Techniques introduced in Music 161 are incorporated in other production skills, which include signal processing, mixing and DAT recording as well as traditional reel-to-reel recording. Advanced synthesis techniques will be taught (sampling and cross/wave), + SMPTE time code uses.

299 Music Honors (1) †UC:CSU RPT 3
Laboratory 3 hours.
Prerequisite: *Music 121, 122, and 203.*
Provides the gifted student in music an opportunity for concentrated independent study in selected areas under the direct supervision of an instructor. Presents a course of study through a series of projects designed to increase the students' knowledge of those aspects of music most pertinent to their individual interests and talents.

301 Keyboard Harmony I (1) UC:CSU
Lecture 1 hour.
Prerequisite: *Music 101 or equivalent.*
Emphasis will be on work using both hands, on harmonizing anthem-type melodies and on using 3-note chords in the right hand with single bass notes in the left hand. The student will also perform florid melodies using single notes in the right hand with 3-note chords in the left hand.

302 Keyboard Harmony II (1) UC:CSU
Lecture 1 hour.
Prerequisite: *Music 301 with a grade of "C" or better, or equivalent.*
This course is a continuation of student development of keyboard skills. Emphasis will be on left hand harmonic patterns such as Alberti bass, "waltz" bass, and two part (treble and bass) harmonizations. This level is to include secondary seventh chords (and inversions), secondary dominants (and inversions), as well as transient and real modulatory exercises.

303 Keyboard Harmony III (1) UC:CSU
Lecture 1 hour.
Prerequisite: *Music 302 with a grade of "C" or better, or equivalent.*
This course is a continuation of student development of keyboard skills, using more complex piano idioms, harmonizations to include the augmented sixth chord family, the Neapolitan sixth, chromaticism, remote key movement and relationships, as well as some early 20th Century techniques, such as parallelism, chords in fourths, polytonal passages, etc.

321 Elementary Piano I (2) UC:CSU
Lecture-Performance 3 hours.
Consists of music reading, introduction to scale playing, use of piano pedals, sight reading, memorization, terminology, and theory as related to the music studied.

322 Elementary Piano II (2) UC:CSU
Lecture-Performance 3 hours.
Note: *Students must be able to perform simple major scales, sing line melodies with basic chordal accompaniment and two-part pieces similar to those found in Bartok's Mikrokosmos, Volume 1.*
Continuation of Music 321.

323 Elementary Piano III (2) UC:CSU
Lecture-Performance 3 hours.
Note: *Students must be able to perform two-octave major scales, simple melody, and accompaniment pieces such as those found in Music for Millions, Volume 17 and two-part pieces similar to those found in Bartok's Mikrokosmos, Volume 2.*
Continuation of Music 322.

324 Elementary Piano IV (2) UC:CSU
Lecture-Performance 3 hours.
Prerequisite: *Music 323 with a grade of "C" or better.*
Continuation of Music 323.

341 Intermediate Piano (2) UC:CSU RPT 3
Lecture-Performance 3 hours.
Prerequisite: *Elementary Piano.*
Continues the study of theoretical music, fundamentals, ear training, and sight reading. Introduces compositions stressing scales, chords, arpeggios and harmonic structure of music, in an interpretive manner. Emphasizes style and interpretation.

351 Piano Ensemble (1) UC:CSU RPT 3
Laboratory 2 hours.
Prerequisite: *Music 341.*
Provides the opportunity for ensemble experience through the performance of literature for two pianos, four and eight hands. Particular emphasis on style, interpretation and the development of sight reading.

411 Elementary Voice I (2) UC:CSU
Lecture-Performance 3 hours.
Concentrates on general, basic fundamentals of singing, using vocal exercises, and simple songs. Emphasis on developing an understanding of the singing voice, the body as a musical instrument, and the vocal potential of each student. Songs used implement and illustrate vocal growth and development.

412 Elementary Voice II (2) UC:CSU
Lecture-Performance 3 hours.
Note: *Traditional voice students must be familiar with the basic fundamentals of singing and the Italian art song style. Pop voice students must be familiar with the basic fundamentals of singing and microphone technique.*
Continuation of Music 411.

413 Elementary Voice III (2) UC:CSU
Lecture-Performance 3 hours.
Note: *Traditional voice students must be familiar with Italian and French or German art song styles.*
Continuation of Music 412.

414 Elementary Voice IV (2) UC:CSU
Lecture-Performance 3 hours.
Note: *Traditional voice students must be familiar with Italian, French and German art song styles.*
Continuation of Music 413.

441 Song Repertoire (2) UC:CSU RPT 3
Lecture 1 hour; laboratory 2 hours.
Prerequisite: *Music 414.*
Offers to the traditional voice student the opportunity to study and perform a varied repertoire of musicals, art songs and operas.

501 College Choir (.5) UC:CSU RPT 3
Laboratory 3 hours.
Open to all students.
The study, preparation, and performance of standard choral music and popular selections. Basic singing techniques and music reading are included.

531 Philharmonic Choir (.5) UC:CSU RPT 3
Laboratory 3 hours.
Note: *Some familiarity with choral repertoire and proper vocal technique is required.*
Study and performance of choral literature from all stylistic periods. Emphasis is placed on major choral works.

561 Chamber Chorale (.5) UC:CSU RPT 3
Laboratory 3 hours.
Prerequisite: *Audition.*
Concerns the study and performance of musical literature of small chamber choral groups from the sixteenth century to the present.

571 Jazz Choir (.5) CSU RPT 3
Lecture-Performance 4 hours.
Prerequisite: *Audition.*
Offers practical experience in singing jazz, folk and rock music in small ensemble. Recording studio techniques will be explored.

601 Brass Instrument Instruction I (2) UC:CSU
Lecture-Performance 3 hours.
Offers instruction in trumpet, trombone, tuba and French horn. Recommended for students interested in learning an instrument, instrumental writing or how to teach instrumental music.

602 Brass Instrument Instruction II (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 601.

603 Brass Instrument Instruction III (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 602.

604 Brass Instrument Instruction IV (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 603.

611 String Instrument Instruction I (2) UC:CSU
Lecture-Performance 3 hours.
Offers beginning and intermediate instruction in violin, viola, cello and bass. Recommended for students interested in learning an instrument, instrumental writing, how to teach instrumental music.

612 String Instrument Instruction II (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 611.

613 String Instrument Instruction III (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 612.

614 String Instrument Instruction IV (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 613.

621 Woodwind Instrument Instruction I (2) UC:CSU
Lecture-Performance 3 hours.
Offers instruction in flute, oboe, clarinet and bassoon. Recommended for students interested in learning an instrument, instrumental writing, or how to teach string and wind instrument players.

622 Woodwind Instrument Instruction II (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 621.

623 Woodwind Instrument Instruction III (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 622.

624 Woodwind Instrument Instruction IV (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 623

650 Beginning Guitar (2) UC:CSU
Lecture-Performance 3 hours.
Concerns beginning guitar skills with emphasis on learning to read music on the guitar, up to the fifth position for the left hand. Right hand technique will be finger, not pick oriented; and the course is a perfect introduction to either classical, commercial, or folk guitar playing.

651 Classical Guitar I (2) UC:CSU
Lecture-Performance 3 hours.
***Note:** Familiarity with music notation and basic guitar technique is required.*
Provides basic instruction in Classical Guitar playing at the beginning level. Includes appropriate exercises to develop technical facility, material for sight-reading, study of basic chords, and repertoire.

652 Classical Guitar II (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 651.

653 Classical Guitar III (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 652.

654 Classical Guitar IV (2) UC:CSU
Lecture-Performance 3 hours.
Continuation of Music 653.

661 Commercial Guitar I (2) CSU
Lecture 1 hour; laboratory 2 hours.
***Note:** Familiarity with rudimentary chord symbols and basic guitar technique is required.*
Designed to give the guitarist experience in playing melody, accompaniments, and performing songs with simultaneous chords and melody. Styles covered include jazz, jazz-fusion, rock and bossa-nova. Techniques include scales and sight reading up to the fifth position in keys up to three flats and three sharps.

662 Commercial Guitar II (2) CSU
Lecture 1 hour; laboratory 2 hours.
***Prerequisite:** Music 661 or appropriate private instruction.*
***Note:** Must possess own instrument.*
Continuation of Music 661.

663 Commercial Guitar III (2) CSU
Lecture 1 hour; laboratory 2 hours.
***Prerequisite:** Music 662 or appropriate private instruction.*
***Note:** Must possess own instrument.*
Continuation of Music 662.

664 Commercial Guitar IV (2) CSU
Lecture 1 hour; laboratory 2 hours.
***Prerequisite:** Music 663 or appropriate private instruction.*
Note: Must possess own instrument.
Continuation of Music 663.

705 Chamber Music (.5) UC:CSU RPT 3
Lecture-Performance 3 hours.
Provides experience in typical chamber music and chamber orchestra combinations. Open to qualified instrumentalists, including pianists, string and wind instrument players.

721 Orchestra (1) UC:CSU RPT 3
Lecture-Performance 4 hours.
Concerns reading and detailed study of the standard repertoire symphonic music. Provides experience in interpreting music of various styles and performing for various college functions.

741 Band (1) UC:CSU RPT 3
Lecture-Performance 4 hours.
***Note:** Ability to play a band instrument required.*
Includes the study and performance of standard works for instrumental ensembles.

745 Symphonic Band (.5) UC:CSU RPT 3
Lecture-Performance 6 hours.
***Note:** Ability to play a wind or percussion instrument required.*
Explores contemporary and traditional band literature with emphasis on performance-related experiences. Provides opportunities for solo performances, section rehearsals, and large ensemble rehearsal and performance.

755 Brass Ensemble (.5) UC:CSU RPT 3
Lecture-Performance 3 hours.
Provides rehearsal and performance experience in a wide variety of brass literature.

765 Percussion Ensemble (.5) UC:CSU RPT 3
Laboratory 3 hours.
Provides the student with the opportunity to learn the principles of percussion ensemble literature in the symphonic and commercial fields. Public performances will be given.

781 Studio Jazz Band (.5) CSU RPT 3
Lecture-Performance 4 hours.
***Note:** Ability to play a jazz instrument required.*
Offers practical experience playing in a large dance band. Also, reading and rehearsing of standard musical arrangements will emphasize intonation, rhythmic accuracy, artistic expression, and improvisation.

911 Cooperative Education - Music (1) CSU RPT 3

921 Cooperative Education - Music (2) CSU RPT 3

931 Cooperative Education - Music (3) CSU RPT 3

941 Cooperative Education - Music (4) CSU RPT 3
***Prerequisite:** Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
***Limits to transfer credit:** See Cooperative Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

**UC Credit Limit: Any or all courses combined, maximum 12 units.*

Natural Resources Management

See **Agriculture** course listings 900-999.

Numerical Control

See listing under **Industrial Technology** - Numerical Control.

Nursing

See "Nursing: Associate in Arts Degree" for General Education prerequisites, page 60.

400 Fundamentals of Nursing (4) CSU
Lecture 2 hours; laboratory 6 hours.
***Prerequisite:** Approval to enter the Nursing Program. Must show proof of current Basic Life Support card (CPR-BLS "C").*
Introduces the student to the nursing process and Gordon's Functional Health Patterns as they relate to the care of the adult client. Basic clinical skills and related theory are presented. Encompasses physical, psychosocial, cultural, developmental, and legal aspects as related to nursing. Includes clinical experience.

401 Client Care Seminar I (1) CSU
Lecture 1 hour.
***Prerequisite:** Enrollment in Nursing Program.*
An elective, but strongly recommended instructor guided course. Emphasizes nursing process and Gordon's Functional Health Patterns to enhance planning of nursing care and performance of nursing skills. Selected patient care experiences and nursing skills will be used.

402 Preparation for Drug Therapy (1) CSU
Lecture 1 hour.
***Prerequisite:** Acceptance into the Nursing Program.*
Introduces basic knowledge and skills required for safe and effective drug therapy. Includes mathematics used in calculation of drug dosage. Specific drug classifications are discussed in conjunction with Gordon's Functional Health Patterns. Nursing process serves as a framework in the application of content to client care.

403 Medical-Surgical Nursing I (5) CSU
Lecture 2 hours; laboratory 9 hours.
***Prerequisite:** Nursing 400, 402, 407,and 408 (or their equivalent) with a grade of "C" or better.*
Introduces theory and concepts central to the practice of medical- surgical nursing, emphasizing short-term acute health problems and perioperative care. Encompasses physical, psychosocial, cultural, developmental, and legal aspects. Continues to expand knowledge of functional health patterns and the use of nursing process. Clinical experience is focused on multiple primary care assignments.

404 Maternity Nursing (4) CSU
Lecture 2 hours; laboratory 6 hours.
***Prerequisite:** Completion of the first year of the Nursing Program or its equivalent or RN referral.*
Studies the reproductive process and its effect on health and family life within the framework of the nursing process and Gordon's Functional Health Patterns. Covers the normal maternity cycle, common problems, and the newborn. Encompasses psychosocial, cultural, developmental, legal, and ethical aspects of maternity care. Women's health care is discussed. Includes clinical experience.

405 Psychiatric Nursing (4) CSU
Lecture 2 hours; laboratory 6 hours.
***Prerequisite:** Completion of the first semester of the Nursing Program or its equivalent or RN referral.*
Introduces the concepts of psychiatric nursing utilizing Gordon's Functional Health Patterns and the nursing process. Presents current theory and practice in the care of the mentally ill. Psychosocial, physical, legal and illness stressors are discussed as they relate to the individual and family. A variety of clinical experiences are provided in the acute psychiatric setting.

406 Medical-Surgical Nursing II (5) CSU
Lecture 2 hours; laboratory 9 hours.
***Prerequisite:** Completion of the first year of the Nursing Program (or its equivalent).*
Builds upon previously learned concepts of medical-surgical nursing. Emphasizes the chronically-ill adult and geronic client with concurrent acute health problems. Utilizes the Functional Health Patterns as a basis for assessment and implementation of the nursing process. Clinical experiences include multiple primary care assignments and introduces management of clients in small groups in the acute care setting.

407 Gerontic Nursing (3) CSU
Lecture 1 hour; laboratory 6 hours.
***Prerequisite:** Approval to enter the Nursing Program. Must show proof of current Basic Life Support card (CPR-BLS).*
Introduces the gerontic client including physical, psychological, social, spiritual, and intellectual aspects. Emphasizes interrelatedness of Gordon's Functional Health Patterns and nursing process, growth and development, and health problems in the aging client. Includes clinical experience.

408 Mental Health Nursing (1) CSU
Lecture 1 hour.
Prerequisite: *Acceptance into the Nursing Program.*
Facilitates assessment and promotion of mental health perspectives across the life span. Introduces the concepts of wellness and holistic health care while focusing on community mental health. Emphasizes nursing process and identification of behaviors which represent functional and dysfunctional health patterns as defined by Gordon. Examines multiple factors influencing mental health such as biological, sociocultural, or psychological components.

414 Medical-Surgical Nursing III (5) CSU
Lecture 2 hours; laboratory 9 hours.
Prerequisite: *Completion of the third semester of the Nursing Program (or its equivalent).*
Advanced theories and concepts of adult medical-surgical nursing with emphasis on complex and acute health problems. Includes physical, psychosocial, cultural, developmental, and legal aspects. Provides in-depth clinical experience utilizing functional health patterns and nursing process. Stresses management experience focusing on the staff nurse role.

415 Pediatric Nursing (4) CSU
Lecture 2 hours; laboratory 6 hours.
Prerequisite: *Completion of the third semester of the Nursing Program (or its equivalent or RRN referral).*
Discusses concepts of Pediatric Nursing within the framework of Gordon's Functional Health Patterns and the nursing process. Emphasis is placed upon health problems and the pediatric client's unique reaction to hospitalization. Topics include growth and development from infancy through adolescence and adaptation of nursing techniques for the pediatric client/family. Includes clinical experience.

417 Client Care Seminar IV (1) CSU
Lecture 1 hour.
Prerequisite: *Concurrent enrollment in the fourth semester of the Nursing Program.*
An elective, but strongly recommended instructor guided course for senior nursing students. Uses tutorial study, independent learning, and nursing skills practice to provide enrichment in advanced clinical application of nursing process and Gordon's functional health patterns.

424 Client Care Seminar II (1)
Lecture 1 hour.
Prerequisite: *Concurrent enrollment in the second semester of the Nursing program.*
An elective but strongly recommended instructor guided course which emphasizes nursing process and Gordon's Functional Health Patterns to enhance planning of nursing care. Provides opportunities for client teaching in simulated role-playing experiences. Selected nursing skills practice will be provided.

441 History, Trends, and Issues of Nursing (1) CSU
Lecture 1 hour.
Prerequisite: *Concurrent enrollment in the fourth semester of the Nursing Program.*
Examines current and relevant nursing issues within the context of historical development of organized nursing. Includes legal rights and responsibilities and economic and educational issues as they affect the emergence of the modern nurse. Discusses the nurse's role as a contributing member of the discipline and the community.

442 Role Transition to RN (1) CSU
Lecture 1 hour.
Prerequisite: *Approval to enter the Nursing Program. Must currently be Licensed Vocational Nurse, foreign nurse graduate or a transfer nursing student.*
Orients the advanced placement nursing student to the College and to the Nursing Program. Discusses the roles and responsibilities of the registered nurse. Instruction focuses upon the application of nursing process, its components, and the use of Gordon's Functional Health Patterns for assessment. Includes development of care plans for clients in a variety of settings.

444 Client Care Seminar III (1) CSU
Lecture 1 hour.
Prerequisite: *Concurrent enrollment in the third semester of the Nursing Program.*
An elective, but strongly recommended instructor guided course to facilitate enrichment, tutorial study, the utilization of independent learning, and nursing skills practice.

450 Clinical Nursing Preceptorship (3)
Laboratory 8 hours.
Prerequisite: *Completion of the second or third semester of the Nursing Program or the equivalent.*
Elective nursing course to enhance student skills and knowledge, improve clinical performance, and increase confidence in the work setting. An intensive clinical experience in which the student is paired with a staff nurse in an acute care facility. Clinical topics include management and communication.

463 Introduction to Nursing (.5)
Lecture .5 hour.
Designed for the prenursing major or student considering Nursing as a career. An introduction to nursing and the Nursing Program at L. A. Pierce College.

185 Directed Study - Nursing (1)

285 Directed Study - Nursing (2)

385 Directed Study - Nursing (3)
Conference 1 hour per unit.
Allows students to pursue Directed Study in Nursing under the direction of a supervising instructor.

911 Cooperative Education - Nursing (1) CSU RPT 3

921 Cooperative Education - Nursing (2) CSU RPT 3

931 Cooperative Education - Nursing (3) CSU RPT 3

941 Cooperative Education - Nursing (4) CSU RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Limits to transfer credit: *See Cooperative Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

Oceanography

1 Introduction to Oceanography (3) UC:CSU
Lecture 3 hours.
Introduces the student to the general field of oceanography, including a study of the features of the sea floor, the chemical and physical properties of sea water, currents, tides, waves and their effects on marine organisms. Special reference will be made to the Southern California environment and problems of man and the sea.

2 Introduction to Marine Biology (3) *UC:CSU
Lecture 2 hours; laboratory 3 hours.
This course is designed to be taught at a marine biology field station and maximizes the opportunities afforded by field study. The lecture, laboratory and field study are integrated to examine the biology of marine plants and animals. Emphasis is placed on the interactions among species which determine their distributions and the organization of communities.

10 Physical Oceanography Laboratory (2) UC:CSU
Prerequisites: Oceanography 1 or concurrent enrollment.
Lecture 1 hour; laboratory 2 hours.

Offers an opportunity to learn skills and techniques of the oceanographer through laboratory, beach and dockside field work, and work cruises aboard a research vessel. Includes the study of nautical charts, instrumentation, and oceanographic processes such as sedimentation, effects of winds, currents, tides, and determination of water quality. Students are required to attend three field trips.

12 Lectures in Marine Biology (3) *UC:CSU
Lecture 3 hours.
***Note:** Students interested in earning laboratory credit are encouraged to enroll concurrently in Oceanography 14.*

Introduces students to the biology of the marine environment. Included is a survey of marine organisms examining their structure/morphology, feeding habits, reproduction, adaptations and ecology. Special emphasis is placed on the ecology/interrelationships of organisms in the marine environment including kelp forests, coral reefs, the deep sea, rocky intertidal zone and wetlands communities. Man's influence on the marine environment is explored by study of fisheries management, pollution issues and discussion of current events.

14 Marine Biology Laboratory (2) *UC:CSU
***Prerequisite:** Oceanography 12 or concurrent enrollment.*

Introduces student to the intertidal and nearshore marine communities of southern California. The biology of marine plants and animals is examined with emphasis on morphology, classification and ecology of major groups. A strong field emphasis includes field studies of the rocky intertidal zone, marsh and mudflat wetlands and sandy beach communities. Students participate in cruises on a research vessel requiring "hands-on" participation in all aspects of oceanographic sampling. Oceanography 12 must be completed previously or taken concurrently.

185 Directed Study - Oceanography (1) †UC:CSU RPT 2

285 Directed Study - Oceanography (2) †UC:CSU

385 Directed Study - Oceanography (3) †UC:CSU
Conference 1 hour per unit.

Allows students to pursue Directed Study in Oceanography on a contract basis under the direction of a supervising instructor.

**UC Credit Limit: Oceanography 2, 12, and 14 combined, maximum 5 units.*

Office Administration

1 Typewriting/Keyboarding I (3)
Lecture 2 hours; laboratory 3 hours.

Develops fundamental typewriting skills on the computer. Permits students to achieve a typing speed of at least 30 gross words a minute for 5 minutes with no more than 5 errors.

2 Typewriting/Keyboarding II (3) CSU
Lecture 2 hours; laboratory 3 hours.
***Prerequisite:** Office Administration 1 or 9 with a grade of "C" or better.*

Develops speed and accuracy in typing on the computer as well as training in letter placement, manuscripts, and tabulations. Permits students to achieve a typing speed of at least 45 words a minute for 5 minutes with no more than 5 errors. Students should enroll in Office Administration 9 if they do not meet the requirements for admission to Office Administration 2. Course not open to students who have credit for 4 semesters of typewriting in any other school.

9 Typewriting/Keyboarding Improvement (1) RPT 1
Laboratory 3 hours.
***Prerequisite:** Office Administration 1 with a grade of "C" or better.*

Improves typing techniques, speed, and accuracy through timed writings, corrective drills, and production problems. Students may enroll for two semesters, but the semesters may not be consecutive. This course may be taken concurrently with Office Administration 2 if the student needs additional speed and/or accuracy building.

23 Legal Secretarial Procedures I (5)
Lecture 5 hours.
***Prerequisites:** Office Administration 2 and 71.*
Offered in the Fall semester only.

Teaches the spellings and meanings of approximately 400 legal words. Offers training in the preparation of personal injury, probate, and dissolution cases. Teaches office procedures in court filings and teaches skill in transcribing legal materials using transcribing machines.

24 Legal Secretarial Procedures II (5)
Lecture 5 hours.
***Prerequisite:** Office Administration 23.*
Offered in the Spring semester only.

Offers training in the preparation of landlord and tenant, corporation, and criminal cases. Simulates on-the-job training with emphasis on working under pressure and on decision making. Continues to develop legal vocabulary and speed in transcribing legal pleadings.

31 Business English (3)
Lecture 3 hours.
***Prerequisite:** Students must be eligible for English 21. Concurrent enrollment in Office Administration 34 is recommended.*

Develops competency in the fundamentals and mechanics of correct English usage, including grammar, punctuation, capitalization, number style, sentence structure, and written expression. Emphasizes appropriate methods of expression through sentence construction, paragraph development, and functional composition.

32 Business Communications (3) CSU
Lecture 3 hours.
***Prerequisite:** Office Administration 31 or English 28 with a grade of "C" or better.*

Complete communications skills course for practical business applications. Stresses problem-solving approach in composition of business memoranda, letters, reports, employment communications, and other documents. Also provides opportunity to improve speaking and listening skills.

34 Business Vocabulary and Spelling (2)
Lecture 2 hours.

Provides students the opportunity to improve their spelling ability and enrich their vocabulary. Emphasizes the habit of using the dictionary.

39 Word Processing: Keyboarding and Operations (3) RPT 2
Lecture 2 hours; laboratory 3 hours.

Prepares students to become proficient in Microsoft Word for Windows using an IBM compatible microcomputer. Students will learn beginning and advanced functions and apply their skills and knowledge to a wide variety of simple and complex documents, such as letters and memorandums, columnar tables, text tables, manuscripts, and mailing list documents. Knowledge of typewriting and good English skills will be beneficial.

58 Word Processing: Office Simulation (5)
Lecture 5 hours.
***Prerequisites:** Office Administration 39 or 84. Recommended: Office Administration 83.*

Introduces students to Novell network administration with emphasis on DOS, network hardware and software, creation of user logins, and use of network supervisory utilities. Explores electronic mail, computer messaging, and document transfer via computer with or without a modem. Surveys windows and programs designed for that graphical interface. Presents guidelines for microcomputer equipment selection.

Offered in Spring semester only.

64 Office Administration Laboratory (1) RPT 2
Laboratory 2 hours.
Prerequisite: *Concurrent enrollment in or completion of Office Administration 59, 75, 78, 79, 82, 83, 84, 85, or 86.*

This laboratory course is designed to reinforce the lectures presented in all microcomputer Office Administration classes. It gives needed practice to apply fundamental principles to the preparation of various types of documents used in business and nonbusiness classes.

70 Human Relations in the Office (3)
Lecture 3 hours.
Prerequisite: *Office Administration 51 and 54.*

Designed to help develop an understanding of one's self; how one relates to others in terms of family, social, business, or work situations; and how one motivates, manages, or supervises others. Introduces students to assertion, problem-solving, and decision-making techniques. Acquaints students with a variety of self-help agencies and outside reference materials.

Offered in the Spring semester only.

71 Universal Transcription (3) CSU
Lecture 2 hours; laboratory 3 hours.
Prerequisite: *Office Administration 51 and 54.*
Offered in the Fall semester only.

Develops the ability to transcribe mailable business letters. Emphasizes the following skills: (1) typewriting on the computer, (2) producing copy from recorded dictation, (3) spelling, (4) using correct grammar and punctuation, (5) differentiating between and among word confusions, (6) arranging copy, (7) proof-reading, and (8) handling supplies and equipment. The ability to type 35 words a minute is recommended.

75 Word Processing: Equipment Operation (2) CSU
Lecture 1 hour; laboratory 2 hours.

Designed to meet the needs of beginning computer students of all majors by providing the skills necessary to operate a simple word processing program on a personal computer. Emphasis is placed on understanding the logic inherent in performing basic word processing operations in order to input, edit, and print elementary documents such as letters, memos, and reports.

76 Keyboarding for Data Processing (1)
Laboratory 2 hours.

Develops fundamental keyboarding skills necessary to input information on the computer terminal efficiently and accurately. Designed to meet the needs of data processing students and other individuals interested in developing computer keyboarding skills.

77 Microcomputer Accounting for the Electronic Office (3)
Lecture 3 hours.

Gives students a background in bookkeeping and accounting theory as a basis for developing an understanding of microcomputer programs and applications in the electronic office. Includes acquaintance with accounting terminology, accounting procedures, cash handling procedures, record keeping, financial statements, merchandise inventory, and payroll. Introduces students to accounting software and concepts of microprocessor usage.

78 Microcomputer Accounting Applications for the Electronic Office (3) CSU
Lecture 1 hour; laboratory 4 hours.
Prerequisite: *Office Administration 77, Accounting 1 or 21.*

Acquaints students with the use of the microcomputer for bookkeeping and accounting applications in the electronic office. Students receive hands-on experience in keeping records, preparing financial statements, generating financial management reports, and setting up a simulated company using actual business microcomputer software packages.

79 Word Processing Applications (3)
Lecture 2 hours; laboratory 3 hours.
Prerequisite: *Office Administration 59 or 84, and Office Administration 2.*
Offered in the Spring semester only.

Uses a word processing program to develop skill in preparing a variety of business documents. Covers formats for letters, memorandums, reports, tables, outlines, form documents, paragraph libraries, and two-column setups. Emphasizes the development of proofreading and editing skills in the preparation of business documents. Introduces desktop publishing concepts using a word processing program.

81 Field Work (1) RPT 1
Laboratory 3 hours.
Prerequisite: *Concurrent enrollment in Office Administration 24 or 58.*
Offered in the Spring semester only.

Provides an opportunity to obtain specialized experience in clerical, legal, or word processing environments through an internship program. During this cooperative work experience program, students are given varied practical applications in their respective fields and are able to coordinate this experience with their classroom instruction.

82 Microcomputer Software Survey in the Office (3) CSU
Lecture 2 hours; laboratory 3 hours.

Introduces students to the use of the microcomputer and commercially available software used in business offices. Course provides hands-on introduction to IBM PC/MS DOS, Windows, word processing, database, and spreadsheet software. Student gains basic knowledge necessary to interact with the computer. No previous computer operating experience required, although ability to type is recommended.

83 Microcomputer Office Applications: Operating Systems (1)
Laboratory 2 hours.

An introduction to microcomputers and microcomputer operating systems. The course covers the major components of a microcomputer system, the operating system command structure and terminology, and printer operations. It includes hands-on use of IBM PC/MS DOS in various applications of routine microcomputer work functions.

84 Microcomputer Office Applications: Word Processing (3) CSU RPT 2
Lecture 2 hours; laboratory 3 hours.

Prepares students to become proficient in WordPerfect for Windows using an IBM-compatible microcomputer. Students will learn beginning and advanced functions and apply their skills and knowledge to a wide variety of simple and complex documents, such as letters and memorandums, columnar tables, text tables, manuscripts, and mailing list documents. Knowledge of typewriting and good English skills will be beneficial.

85 Microcomputer Office Applications: Spreadsheet (3) CSU
Lecture 1 hour; laboratory 4 hours.

Designed to teach office spreadsheet applications using the IBM compatible microcomputer and a spreadsheet program (Excel). Students learn to create, edit, format, and print worksheets. They also learn to prepare graphs from worksheets, use functions, sort and filter data bases, and create macros. Emphasis is on office accounting applications and simplifying office accounting procedures.

86 Microcomputer Office Applications: Database (3) CSU
Lecture 1 hour; laboratory 4 hours.

Designed to teach office data base applications using an IBM compatible microcomputer and a data base program, such as dBase IV or Access for Windows. Covers records design, file creation and maintenance, data manipulation, report formats, and printing. Emphasizes office applications.

88 Microcomputer Office Applications: Desktop Publishing (3) RPT 2
Lecture 2 hours; laboratory 3 hours.
Prerequisite: *Office Administration 59 or 84 and Office Administration 2.*

Provides instruction and hands-on training in desktop publishing using IBM-compatible microcomputers, laser printers, scanners, and software programs. Includes preparing advertisements, fliers, business forms, reports, newsletters, and presentations.

89 Microcomputer Office Applications: Disk Operating System (3)
Lecture 1 hour; laboratory 4 hours.
Provides an overview of computer hardware, software, operating system concepts, and graphical user interfaces. Students learn fundamental computer command syntax with an in-depth study of the Disk Operating System (DOS) commands and graphical user interfaces using the Windows Operating Environment.

92 Computer Windows Applications (2) CSU
Lecture 1 hour; laboratory 2 hours.
Presents a brief look at computer hardware and software with an in-depth study of graphical user interfaces using Windows.

185 Directed Study - Office Administration (1)RPT 2

285 Directed Study - Office Administration (2)

385 Directed Study - Office Administration (3)
Conference 1 hour per unit.
Prerequisite: *Office Administration 1 or 2.*
Allows students to pursue Directed Study in Office Administration on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - Office Administration (1) RPT 3

921 Cooperative Education - Office Administration (2) RPT 3

931 Cooperative Education - Office Administration (3) RPT 3

941 Cooperative Education - Office Administration (4) RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Limits to transfer credit: *See Cooperative Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

Personal Development

1 Introduction to College (1) (NDA) RPT 1
Lecture 1 hour.
Provides students with important information about the College and its resources. Assists the student in educational planning and acquiring skills necessary for academic success such as time management, study skills, and other skills that are necessary for college survival.

4 Career Planning (1) CSU
Lecture 1 hour.
Designed to give the vocationally undecided student an understanding of the career planning process. May include vocational tests, various self appraisal techniques, and information regarding occupational characteristics, trends, entry and career levels. Teaches career planning skills and allows the student to work toward a career choice.

7 Seminar for Returning Students (1) CSU
Lecture 1 hour.
Open to both men and women.
Develops understanding regarding concerns, interests, and needs of women in the areas of employment, education, and changing demands of home, career and society. Emphasis will be on using these understandings to enhance the academic and social growth of the students. May be offered for 10 weeks - 2 hours a week.

8 Career Planning and Development (2) CSU
Lecture 2 hours.
Teaches the process of career planning. The emphasis is on learning about yourself and the world of work and how to use this information in career planning. This course also acquaints the students with college services, personnel, curricula, and student activities.

15 Personal Development Seminar (3) (NDA) RPT 3
Lecture 3 hours.
Group study of a selected topic, the title and units to be specified in the schedule of classes. No more than 3 units may be taken in any semester.

Philosophy

1 Introduction to Philosophy (3) UC:CSU
Lecture 3 hours.
This is a basic introduction to some of the fundamental issues of philosophy and humanity that include topics such as knowledge and reality, the meaning of the supernatural, the foundations of truth and science, and the nature of human consciousness/self.

2 Society and Values (3) UC:CSU (CAN PHIL 2)
Lecture 3 hours.
Formerly called "Introduction to Philosophy II"
Introduces the student to some of the traditional subjects and contemporary issues in philosophy; includes some of the approaches and terminology found in philosophical literature.

6 Logic in Practice (3) UC:CSU (CAN PHIL 6)
Lecture 3 hours.
Applies the logical principles of sound thinking to morals, politics, and everyday life. Emphasis is placed upon the analysis of language as an aid to sound thinking.

7 Inductive Logic (3) UC:CSU
Lecture 3 hours.
Introduces the concepts, methods, and limitations involved in the systematic procedures of factual inquiry in the sciences and in ordinary thought. Includes probability, measurement, causal relations, statistical inference, the concepts of "law" and "theory".

9 Symbolic Logic I (3) UC:CSU
Lecture 3 hours.
Introduces the student to formal logic, describing various systems of symbolization, the logical concept of sentential connectives and quantifiers. Introduces the concept of deductive logic using various techniques of proof. Uses techniques of translation and the application of formal logic to analysis of arguments and determination of validity.

12 History of Greek Philosophy (3) UC:CSU (CAN PHIL 8)
Lecture 3 hours.
Formerly called "Philosophy 3, History of Greek Thought"
Introduces the student to most of the important philosophers of ancient Greece and Rome. Covers the development of western philosophy from the pre-Socratics through Plotinus, with special emphasis on Plato and Aristotle.

14 History of Modern European Philosophy (3) UC:CSU (CAN PHIL 10)
Lecture 3 hours.
Formerly called "Philosophy 4, History of Modern Thought"
Traces western philosophy from the rise of modern science to the 20th century, with special emphasis on Descartes, Locke, Hume and Kant.

15 History of Contemporary Philosophy (3) UC:CSU
Lecture 3 hours.
Formerly called "Philosophy 12"
Studies recent philosophical developments in Continental and Anglo-American philosophy with readings from such figures as Nietzsche, Heidegger, Husserl, Derrida, Foucault, Gadamer, Ricoeur, Habermas, Russell, Wittgenstein, Dewey, Quine, Rawls, Davidson and Rorty.

19 Contemporary Problems in Bioethics (3) UC:CSU
Lecture 3 hours.
Introduces the student to some of the traditional ethical theories and how they apply to contemporary biomedical ethical problems. Among specific issues to be discussed are abortion, surrogacy, euthanasia, informed consent, genetic engineering, suicide, organ donation, and allocation of scarce resources. 45 C. E. U.'s will be available upon request.

20 Ethics (3) UC:CSU (CAN PHIL 4)
Lecture 3 hours.
Considers human conduct, its rules and natural law, the moral basis of institutions, religious, and the moral order.

29 The Ethics of Biotechnology (1) UC:CSU
Lecture 1 hour.
Corequisite: *Biology 40*
This course provides an introduction to the use of ethical theories to examine the dilemmas associated with advances in biotechnology and methods of resolution of these dilemmas.

30 Asian Philosophy (3) UC:CSU
Lecture 3 hours.
Formerly called "Philosophy 22, Philosophies of the Orient"
Presents the basic concepts of the philosophical systems originating in the civilizations of China, Japan, and India. Considers differences between Oriental and Occidental attitudes and concepts in relation to the impact of Western thought on current philosophy in the Orient.

35 Judaism, Christianity, and Islam (3) UC:CSU
Lecture 3 hours.
Formerly called "Philosophy 25, History of Western Religious Thought"
Offers a scholarly study of religion that explores basic structures of religious belief and practice. Examines the world-views which influenced and shaped the growth and development of the western religious tradition; encourages a desire to understand as a means of overcoming the destructive exchanges that frequently accompany religious discussion.

41 Introduction to Philosophy and Literature (3) UC:CSU
Lecture 3 hours.
Formerly called "Philosophy 24, Introduction to Philosophy of Literature"
Studies the literary medium as it is employed to express and explore philosophical themes such as freedom, determinism, moral responsibility, alienation and logic. Each particular class also allows for a review of literature of a relatively specific milieu, for example, twentieth century existentialism. Cognate concepts from literary criticism, anthropology, sociology, psychology and religion are utilized for understanding selected literary works although no background in any of these fields is required.

42 Philosophy and Cinema (3) UC:CSU
Formerly called "Philosophy 86"
Examines traditional philosophical problems about the meaning of life, truth, knowledge and belief, reality, self and society, reason and emotion, morality and justice, freewill and determinism, and the meaning and role of philosophical questioning itself through selected films.

201 Logic in Written Communication (3) UC:CSU
Lecture 3 hours.
Prerequisite: *English 101 with a grade of "C" or better.*
Critically examines language and argumentation in written material from journalism, literature, and philosophy. Includes the writing of precis, short essays, and a research paper.

Photography

9 Introduction to Cameras and Composition (3) CSU

Note: *Intended for non-photo majors. No laboratory. Students must have a 35 mm camera. Fully automatic cameras without manual override capabilities do not allow students to fulfill some of the course's required assignments and limit the student's ability to learn basic photography concepts. If in doubt, contact the Photography Lab in BUNG 0333 for specific recommendations.*
Lecture 3 hours.
Designed to provide basic information in the use of cameras, lenses, film and exposure to produce good photographs. Slide assignments are given for analysis in class.

10 Beginning Photography (3) *UC:CSU (CAN ART 18)
Lecture 2 hours; laboratory 3 hours.
Note: *Students must have a 35 mm camera. Fully automatic cameras without manual override capabilities do not allow students to fulfill some of the course's required assignments and limit the student's ability to learn basic photography concepts. If in doubt, contact the Photography Lab in BUNG 0333 for specific recommendations.*
Recommended: *Previous or concurrent enrollment in Journalism 100 for Photojournalism majors. Students interested in taking advanced photo classes should enroll in Photography 27 concurrently with Photography 10 or the next semester.*
Presents theory and practice in basic photography with emphasis on the use of a 35 mm camera, development of negatives and final prints. Students should have their own cameras.

11 Advanced Photography (4) CSU RPT 2
Lecture 2 hours; laboratory 6 hours.
Prerequisite: *Photography 10 with a grade of "C" or better.*
Recommended: *Previous or concurrent enrollment in Journalism 101 for Photojournalism majors.*
Provides theory and practice of contemporary use of the camera; training in projection control; includes special effects procedures with an emphasis on creative thinking and idea preparation and execution.

12 Advanced Photographic Techniques (4) CSU
Lecture 2 hours; laboratory 6 hours.
Prerequisite: *Photography 11 with a grade of "C" or better and completion of or concurrent enrollment in Photography 20 and 27.*
Offers a study of advanced photographic techniques, theory, chemicals and formulas necessary to the creative photographer. Includes special effects, such as bas-relief, reticulation, solarization, texture screens, montage printing, etc.

16 Fundamental Commercial Photography (3)
Lecture 2 hours; laboratory 3 hours.
Prerequisite: *Photography 11 with a grade of "C" or better and completion of or concurrent enrollment in Photography 20 and 27.*
Covers the major phases of commercial and illustrative photography as they apply to publication photography.

17 Introduction to Color Photography (3) CSU
Lecture 2 hours; laboratory 3 hours.
Prerequisite: *Photography 11 with a grade of "C" or better and completion of or concurrent enrollment in Photography 20 and 27.*
Studies the theory of light and color and its relationship to exposure and color printing (type C and type R). Also, color negative (C-41) and transparency processing (E-6), color printing techniques and basic quality control are studied and practiced.

20 Beginning Photojournalism (4) CSU
Lecture 2 hours; laboratory 6 hours.
Prerequisite: *Photography 10 with a grade "C" or better.*
Recommended: Previous or concurrent enrollment in Journalism 101 for Photojournalism majors.
Covers photojournalism methods, coverage of news, feature, sports events, and documentary photography.

21 News Photography (4) CSU RPT 3
Lecture 2 hours; laboratory 6 hours.
Same as Journalism 221. Credit not given for both courses.
Prerequisites: *Photography 11 and 20 with a grade of "C" or better and completion of or concurrent enrollment in Photography 27.*
Gives practice experience in the taking and processing of news and feature pictures, emphasizing the use of cameras normally employed in photojournalism. Affords students the opportunity to take, develop, and print pictures for the college newspaper and magazine.

27 History and Aesthetics of Photography (6) UC:CSU
Lecture 6 hours.
Recommended: *Completion of or concurrent enrollment in this class is required to enroll in advanced photo classes. Photojournalism majors must take this course no later than third semester of sequence.*
Provides a chronological description of the major developments of the photographic medium. Relates these developments to society and to events in the other visual arts, and examines the meaning of photography as a work of art.
UC Credit Limit: Maximum three units.

185 Directed Study - Photography (1) CSU RPT 2

285 Directed Study - Photography (2) CSU

385 Directed Study - Photography (3) CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Photography on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - Photography (1) CSU RPT 3

921 Cooperative Education - Photography (2) CSU RPT 3

931 Cooperative Education - Photography (3) CSU RPT 3

941 Cooperative Education - Photography (4) CSU RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.
Limits to transfer credit: *See Cooperative Education Credit Guide.*
****UC Credit Limit:*** *See Art courses with **.*

Physical Education

University of California accepts 4 units of credit from the following Physical Education courses listed under the headings of Water Activities, Individual and Dual Activities, Team Sports, Dance Activities, and Intercollegiate Sports plus related activities. All classes may be taken by either gender with the exception of Intercollegiate Sports, which classifies various activities for "Men" or "Women."
Note: *Only courses marked activity meet the District Requirements for Physical Education activity. Read thoroughly the Schedule of Classes to determine which level one should enroll in (i.e. Beg., Int., Adv.)*
The activity of Physical Education requires repetitive practice for the student to achieve the course objectives. For this reason, it is educationally sound for a student to repeat a Physical Education activity course. No activity course may be taken for more than four semesters.

Check with the Department or Counseling Office for transferability of courses to four-year institutions and for unit limitations of courses accepted by both University of California and CSUN.

90 Individual Physical Fitness Laboratory A and B (2) CSU RPT 3
Laboratory 4 hours.
Individualized program to develop cardiovascular endurance, muscular endurance, strength and flexibility through aerobics, low impact aerobics, stretch/tone, power walking, jogging, weight training, resistance exercises, aqua-aerobics, par course and other exercise equipment. Individual evaluation and information on fitness, body composition analysis, nutrition and stress management.

91 Theory and Application of Aerobics and Conditioning (3) CSU
Lecture 2 hours; laboratory 2 hours.
Increases student awareness regarding changes in physiology resulting from aerobic exercise. Provides the students with an opportunity to participate in, and understand the components of a valid conditioning and nutritional program.

96 Combined Activities (1) *UC:CSU RPT 3
Activity, 2 hours.
Principles, techniques, and practices of fundamental movements used in sports, rhythmic activities as swing and line dances, aquatics, gymnastics, and other conditioning activities as directed are included in this course. Offers opportunity to develop individual skills and rule knowledge in traditional games (may include badminton, paddle tennis, table tennis, deck tennis, archery, running, body conditioning and others as facilities permit.)

Water Activities (1) *UC:CSU RPT 3
Activity, 2 hours.
Beginning, intermediate, and advanced levels offered for all courses listed below except 101. All levels may not be taught each semester:

101	Non-Swimmer
102	Swimming Skills
105	Diving Skills
121	Water Polo Skills

Individual and Dual Activities (1) *UC:CSU RPT 3
Activity, 2 hours.
Beginning, intermediate, and advanced levels offered for all courses listed below. All levels may not be taught each semester:

203	Badminton Skills
206	Handball Skills
212	Tennis Skills
222	Racquetball Skills
225	Yoga Skills
228	Body Conditioning
229	Body Dynamics
230	Weight Training Skills
238	Self-Defense Skills
247	Gymnastics Skills
253	Wrestling Skills
256	Fencing Skills
259	Golf Skills
277	Snow Skiing Skills
289	Bowling Skills

Team Sports (1) *UC:CSU RPT 3
Activity, 2 hours.
Beginning, intermediate, and advanced levels offered for all courses listed below. All levels may not be taught each semester:

301	Baseball Skills
304	Basketball Skills
310	Flag/Touch Football Skills
313	Soccer Skills
322	Volleyball Skills
328	Softball Skills

Dance (1) UC:CSU RPT 3
Activity, 2 hours.
Level 1-2-3-4 offered for all courses listed below, but all levels may not be taught each semester.

**401	International Folk Dance
**431	Modern Dance
**434	Ballet
**437	Jazz
*440	Social Dance
*446	Tap Dance

Intercollegiate Sports - Men, Women, and Coed. (2) UC:CSU RPT 1, *except as noted*
Activity, 10 hours or more in the sports in season.

*503	Baseball (Men)
*504	Basketball (Men/Women)
*508	Football (Men)
*512	Softball (Women)
*513	Swimming (CoEd)
*514	Tennis (Men)
*516	Volleyball (Men - Fall; Women - Spring)
*517	Water Polo (CoEd)
550	Cheer/Yell Leader/Marching Band (no credit for UC) RPT 3

666 Body Conditioning (1) *UC:CSU RPT 3
Laboratory 3 hours.
This course offers instruction and participation in theory and techniques of attaining increased overall fitness through endurance and strength training utilizing resistance machines, circuit training, par course, and running.

690 Weight Training (1) *UC:CSU RPT 3
Laboratory 3 hours.
This course offers instruction and practice in theory and techniques of weight training to gain muscle strength, flexibility, and endurance.

701 Advanced Lifesaving (2) UC:CSU
Lecture 1 hour; activity 2 hours.
Note: *Students must be able to: 1. perform a standing front dive in reasonably good form, 2. swim 500 yds continuously demonstrating some ability in using a front crawl stroke, a side stroke utilizing a scissor kick, and a stroke done for the back using an inverted scissors or inverted breast-stroke kick, 3. surface dive to minimum depth of 8. 029 feet and swim 20. 029 feet underwater and, 4. tread water one minute.*
Encompasses the knowledge and skills essential for personal safety in and on the water and includes training to assist or rescue a person in danger of drowning. Students satisfactorily completing this course will receive their Advanced Lifesaving Cards from the American National Red Cross. Written and practical examinations are given.

702 Water Safety Instruction (3) UC:CSU
Lecture 2 hours; plus 2 hours related swimming.
Note: *A valid Advanced Lifesaving Certificate. This class meets the credit for Physical Education activity. A qualifying swimming test is required.*
This class grants the Red Cross Water Safety Instructor Certificate to students who successfully complete the requirements.

801 Modern Dance I (3) UC:CSU
Lecture 2 hours; laboratory 4 hours.
Stresses the analysis of movement through the biomechanical principals. Beginning technique, alignment, rhythm analysis, elementary elements of composition, historical overview.

802 Modern Dance II (3) **UC:CSU
Lecture 1 hour; laboratory 5 hours.
Prerequisite: *Physical Education 431 and 801.*
Basically the same as Physical Education 801. Differs in the student's ability to execute the class work on a higher performance level. Historically explores dance as an expressive art.

803 Modern Dance III (3) **UC:CSU
Lecture 1 hour; laboratory 5 hours.
Prerequisite: *Physical Education 802.*
Intermediate techniques and principles. Historically explores dance of the Renaissance through 1850.

804 Modern Dance IV (3) **UC:CSU
Lecture 1 hour; laboratory 5 hours.
Prerequisite: *Physical Education 803.*
Intermediate and advanced techniques. Historically explores dance of 1850 to present.

812 Current Dance Events (1) CSU
Lecture 1 hour; laboratory 2 hours.
Prerequisite: *Concurrent enrollment in Humanities 89 recommended.*
Enriches the student's dance, movement and related art experiences through opportunities to observe and participate in a wide variety of dance experiences. Consists of demonstrations by faculty, students, and guest artists. Offers previews of current concerts, symposia, and workshops with opportunities to attend and critically analyze these events. Emphasis will include an increased awareness and a greater understanding of the self and individual's response to his environment.

814 Dance Production (2) **UC:CSU RPT 3
Lecture 1 hour; activity 2 hours.
Provides laboratory experience in developing the skills involved in dance production; choreography, set design, lighting, directing, and costume design. Workshop for Pierce Dance Theatre and Children's Dance Theatre.

818 Fundamental Rhythms (2) CSU RPT 3
Lecture 1 hour; laboratory 2 hours.
Designed primarily for Physical Education, Dance, Recreation, and Elementary Education majors. Rhythm analysis and performance of the fundamental movements, folk, square, social, and modern dance.

819 Choreography (3) UC:CSU RPT 3
Lecture-lab 6 hours.
Prerequisite: *Modern Dance, Ballet, or Jazz experience.*
Offers experience and enrichment in the creative tools of choreography.

820 Dance Production II (4) CSU
Lecture 3 hours; laboratory 3 hours.
Provides laboratory experience in increasing the skills involved in dance production (choreography, set design, lighting, costume design, make-up, etc.) Affords opportunity to perform with, and is also a workshop for the Pierce College Dance Theatre. This is a continuation of Dance 814.

185 Directed Study - Physical Education (1) †UC:CSU RPT 2

285 Directed Study - Physical Education (2) †UC:CSU

385 Directed Study - Physical Education (3) UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Physical Education under the direction of a supervising instructor.

911 Cooperative Education - Physical Education (1) CSU RPT 3

921 Cooperative Education - Physical Education (2) CSU RPT 3

931 Cooperative Education - Physical Education (3) CSU RPT 3

941 Cooperative Education - Physical Education (4) CSU RPT 3
Prerequisite: Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.
Limits to transfer credit: See Cooperative Education Credit Guide.
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

**UC Credit Limit: Any or all courses, maximum 4 units.*
***UC Credit Limit: Any or all courses, maximum 12 units.*

Physical Science

1 Physical Science I (3) *UC:CSU
Lecture 3 hours.
Credit not given for both Physical Science 1 and Physics 12.
Surveys the fields of physics and chemistry stressing the historic development and applications to everyday life. Students who are interested in teaching are encouraged to enroll. A one unit laboratory, Physical Science 14, is available but not obligatory.

4 Physical Science & Laboratory (4) *UC:CSU
Lecture 3 hours; laboratory 2 hours
Same as Physical Science 1 and 14 combined.
Surveys the fields of physics and chemistry stressing the historic development and the applications to everyday life. Students who are interested in teaching are encouraged to enroll. The laboratory component supplements the instruction.

5 Introduction to Air Pollution (3) UC:CSU
Lecture 3 hours.
Same as Environmental Science 9. Credit not given for both courses.
Introduces the student to the sources of air pollution and the technical problems of reducing air pollution. The course includes the physics of the atmosphere, the chemistry of air pollutants, analysis methods and possible methods of pollution control.

14 Physical Science Laboratory (1) *UC:CSU
Laboratory 2 hours.
***Prerequisite or Corequisite:** Physical Science 1.*
Provides laboratory experience supplementing the instruction given in Physical Science 1.

185 Directed Study - Physical Science (1) †UC:CSU RPT 2

285 Directed Study - Physical Science (2) †UC:CSU

385 Directed Study - Physical Science (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Physical Science on a contract basis under the direction of a supervising instructor.
**UC Credit Limit: Physical Science 1, 4, and 14 combined, maximum credit 4 units.*
No credit for Physical Science 1 if taken after a college course in astronomy, chemistry, geology, or physics.

Physics

All Physics, Engineering, and Astronomy majors should enroll in either Physics 37 if qualified or Physics 6 their first semester at Pierce.

6 General Physics I (4) *UC:CSU (CAN PHYS 2)
Lecture 3 hours; laboratory 3 hours.
***Prerequisite:** A course in Trigonometry with a grade of "C" or better.*
Considers the fundamental principles and applications of mechanics, heat, fluids, wave motion and sound.

7 General Physics II (4) *UC:CSU (CAN PHYS 4)
Lecture 3 hours; laboratory 3 hours.
***Prerequisite:** Physics 6 with a grade of "C" or better.*
Continues Physics 6 into principles of electricity, optics, and modern physics.

12 Physics Fundamentals (3) **UC:CSU
Lecture 3 hours.
Credit not given for BOTH Physical Science 1 and Physics 12.
Surveys the field of physics stressing the historic development and the application in today's culture. Students who are interested in teaching are encouraged to enroll. A one unit laboratory, Physical Science 14, is available but is not obligatory.

37A,B Physics for Engineers and Scientists I (5)
***UC:CSU (CAN PHYS SEQ B)**
A, Lecture 4 hours; B, demo laboratory 3 hours.
***Prerequisite:** Mathematics 261 (Calculus I) or equivalent. (Competence in algebra, geometry, and trigonometry is presumed.) Corequisite: Mathematics 262 (Calculus II)*
Considers the fundamental principles and applications of classical mechanics, gravitation, periodic motion, and fluid mechanics at the beginning calculus level of mathematical sophistication. The laboratory includes both quantitative and qualitative experiments which permit students to verify, illustrate, and deduce various laws of physics.

38A,B Physics for Engineers and Scientists II (5)
***UC:CSU (CAN PHYS SEQ B)**
A, Lecture 4 hours; B, demo laboratory 3 hours.
***Prerequisite:** Mathematics 262 (Calculus II), Physics 37.*
Corequisite: Mathematics 263 (Calculus III)
Continues the study of physics begun in Physics 37 involving introductory thermodynamics and electricity and magnetism. The laboratory includes both quantitative and qualitative experiments which permit students to verify, illustrate, and deduce various laws of physics.

39A,B Physics for Engineers and Scientists III (5)
***UC:CSU (CAN PHYS SEQ B)**
A, Lecture 4 hours; B, demo laboratory 3 hours.
***Prerequisite:** Mathematics 263 (Calculus III), Physics 38.*
Concludes the study of physics begun in Physics 37 and Physics 38 involving waves, light and optics, relativity, introductory quantum mechanics, atomic and nuclear physics. It may include topics in molecular and condensed matter as well as particle physics. The laboratory includes both quantitative and qualitative experiments which permit students to verify, illustrate, and deduce various laws of physics.

911 Cooperative Education - Physics (1) CSU RPT 3

921 Cooperative Education - Physics (2) CSU RPT 3

931 Cooperative Education - Physics (3) CSU RPT 3

941 Cooperative Education - Physics (4) CSU RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Limits to transfer credit: *See Cooperative Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

**UC Credit Limit: Physics 6 combined with Physics 37, deduct 2 units from Physics 6. Physics 6 combined with Physics 38 or 39, deduct 1 unit each from Physics 6. Physics 7 combined with Physics 38 or 39, deduct 2 units each from Physics 7.*
***UC Credit Limit: Physics 11 and 12 combined, maximum one course. No credit if taken after Physics 6 or 37.*

Physiology

1 Introduction to Human Physiology (4) *UC:CSU (CAN BIOL 12)
Lecture 3 hours; laboratory 3 hours.
Prerequisite: *Anatomy 1 with a grade of "C" or better.*
Studies the principle functions of the human body; circulatory, respiratory, digestive, nervous, sensory, muscular, excretory, endocrine, and reproductive.
The following sequence (Physiology 8 followed by Physiology 9) is fully equivalent to the separate Anatomy 1 and Physiology 1 courses.

8 Integrated Human Anatomy and Physiology I (4) *UC:CSU
Lecture 3 hours; laboratory 3 hours.
Prerequisite: *Biology 3 with a grade of "C" or better.*
Introduction to the structure and function of the human body, with emphasis on the organ and systems level of study. Anatomical and physiological topics are integrated in this first course of a two semester sequence. Laboratory includes quantitative measurements of physiological and clinical relevance, and includes the study of human cadavers.

9 Integrated Human Anatomy and Physiology II (4) *UC:CSU
Lecture 3 hours; laboratory 3 hours.
Prerequisite: *Physiology 8 with a grade of "C" or better.*
Introduces structure and function of the human body, with emphasis on the organ and systems level of study. Anatomical and physiological topics are integrated in this second course of a two semester sequence.

18 Environmental, Metabolic and Nutritional Physiology (3) CSU
Lecture 3 hours.
Note: *Physiology 18 is approved for continuing education credit in nursing. The Provider Number is 00132.*
Prerequisites: *Physiology 1 or 9.*
An advanced physiology course designed for students in a nursing program. The course covers systemic metabolism, environmental challenges to homeostasis, nutrients role in physiology and in clinical disorders. Each student is expected to have current knowledge in human physiology.

**UC Credit Limit: Physiology 1, 8, and 9 combined, maximum 8 units.*

Political Science

Also See Law 3

1 The Government of the United States (3) UC:CSU (CAN GOVT 2)
Lecture 3 hours.
Studies the government of the United States as to historical background, constitutional background and development, structures and organizations, legal framework, basic concepts and key problems. Also provides an understanding of U. S. foreign policy, political parties and the electorate, civil liberties and civil rights, and issues facing the American people. A special study of California state and local government is a basic part of this course, providing for a strong civic involvement in self-government.

2 Modern World Governments (3) UC:CSU
Lecture 3 hours.
Studies a selected variety of major national states to secure a comparative picture of political philosophies, constitutions, political processes and governmental institutions. Emphasis is placed on those factors, geographic, historic, demographic and cultural, which contribute to differences in governmental experiences.

7 Contemporary World Affairs (3) UC:CSU RPT 1
Lecture 3 hours.
Studies modern international relations and the forces which confront policy makers. Emphasizes current areas of crisis. Provides a basic understanding of the position of the United States in a tense and highly competitive political world.

14 Government and Politics in the Middle East (3) UC:CSU
Lecture 3 hours.
Introduces political and governmental patterns prevalent in the Middle East including the Maghrabi States, Turkey, Iran, and Israel. Special consideration given to the importance of Islam, the politics of oil, intra-area conflicts, American policy, relations between Middle Eastern states and the rest of the world.

30 The Political Process (3) UC:CSU
Lecture 3 hours.
Surveys the nature, operation, and foundations of the democratic order with specific focus on elections, campaigning, political behavior, public opinion, political parties, and interest groups at the national and state levels in the United States.

35 Special Studies in Political Science (3) UC:CSU
Lecture 3 hours.
Provides for the study of American foreign and defense policies. It examines the challenges the United States has faced in the world since 1945 and the policies it has adopted to provide for its national security and secure its foreign policy goals. The course will review the manner in which the United States determines its foreign and defense policies and the instruments it employs to achieve its goals.

185 Directed Study - Political Science (1) †UC:CSU RPT 2

285 Directed Study - Political Science (2) †UC:CSU

385 Directed Study - Political Science (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Political Science on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - Political Science (1) CSU RPT 3

921 Cooperative Education - Political Science (2) CSU RPT 3

931 Cooperative Education - Political Science (3) CSU RPT 3

941 Cooperative Education - Political Science (4) CSU RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.
Limits to transfer credit: *See Cooperative Education Credit Guide.*

Psychology

1 General Psychology I (3) *UC:CSU (CAN PSY 2)
Required for Psychology majors.
Lecture 3 hours.
Presents an introduction to the vocabulary, methods, and problems of psychology. Discusses individual and social problems of everyday life through the viewpoints and methods of modern scientific psychology.

2 General Psychology II (3) UC:CSU (CAN PSY 10)
Prerequisite: *Psychology 1 or 6.*
Lecture 3 hours.
Note: *Physiological Psychology.*
Provides an introduction to physiological psychology which considers the functional and anatomical aspects of the nervous system as they apply to behavior. Physiologic processes, structure and function of sense organs, and the effects of natural and introduced blood transported substances are analyzed in terms of their influences on emotions, speech, intelligence, consciousness, sleep, motivational and psychosomatic relationships.

3 Personality and Social Development (3) CSU
Lecture 3 hours.
Seeks to develop an understanding of personality dynamics and structure, theories of personality development, various behavior forms, and the psychological basis of emotional adjustment. Examines the concepts of mental health, and stresses the application of insights gained to life problems.

4 Applied Psychology (3) CSU
Lecture 3 hours.
Prerequisite: *Psychology 1 or 6.*
A study of the way in which psychology can be applied in increasing personal and occupational efficiency, and problems relating to the applications of psychology in industry, personnel work, business, law, criminology, medicine and nursing.

6 Human Behavior (3) *UC:CSU
Lecture 3 hours.
Note: *Not recommended for students who have credit for Psychology 1, who are Psychology majors, or whose major requires Psychology 1.*
Introduces the student to the methods and data of psychology as a behavioral science. Enables students to apply systematically obtained data and technique to their own experience and to their relations with others.

10 Principles of Psychology (3) UC:CSU
Lecture 2 hours; Laboratory 3 hours.
Prerequisite: *Psychology 1 and Statistics 1 or concurrent enrollment.*
Designed especially for psychology majors and other students planning further work in psychology. Emphasis is placed on psychology as a fundamental science and the place of the scientific method in the study of behavior is stressed. Basic experiments will be designed and executed by each student.

11 Child Psychology (3) UC:CSU
Lecture 3 hours.
Prerequisite: *Psychology 1 or 6.*
Note: *Concurrent enrollment in Psychology 81 is strongly recommended.*
Considers general specific behavior patterns of children, with a view to helping adults better understand the child's behavior and development.

13 Social Psychology (3) UC:CSU
Lecture 3 hours.
Prerequisite: *Psychology 1 or 6.*
Studies individual behavior as it affects others and as it is affected by others. Considers leading principles discovered by social scientists. Includes cultural anthropology, growth and decline of social institutions, types of individual interaction, and human ecology.

14 Abnormal Psychology (3) UC:CSU
Lecture 3 hours.
Prerequisite: *Psychology 1 or 6.*
Acquaints the student with dynamics of personality, adjustment mechanisms, mental mechanisms, types of emotional disorders, various theories of their origin and development, and various therapeutic approaches.

16 Intimacy, Marriage, and Family Relationships (3) CSU
Lecture 3 hours.
Formerly Love and Marriage
Presents a scientific study of human behavior and experience as expressed in love, marriage, and family relationships. Such topics as the psychological motives of couples, the emotional maturity of couples, the need for an adequate frame of reference for marriage, the development of interpersonal competence and effective partner and parentage relations are studied.

17 The Exceptional Child (3) CSU
Lecture 3 hours.
Prerequisite: *Psychology 1 or 6.*
Considers personality, social, and cognitive development of exceptional children, that is, mentally retarded, emotionally disturbed, brain damaged, educationally handicapped, sensory impaired, bilingual, creative, and gifted children. Discusses familial reaction, special educational problems and techniques, and self image.

18 Psychology of Women's and Men's Changing Roles (3) UC:CSU
Lecture 3 hours.
Prerequisite: *Psychology 1.*
Studies psychological and sociological implications of sex roles. Covers present information and research on biologically and culturally determined characteristics of women and men, how these affect personality, their relationship to work, education, family, law and politics. Special adjustment problems of men and women in our society will be emphasized.

24 Scholastic and Personal Development (3) (NDA)
Lecture 3 hours.
Designed to help students formulate and achieve academic and personal goals. Focuses on such academic skills as: note-taking, test-taking, test-anxiety reduction, self-discipline, time management and learning techniques. In addition, various psychological strategies are used to help students achieve personal success. Topics include habit control, motivation training, personal exploration and enhancement of self-esteem. This course is especially useful for adults who are returning to college.

26 Power and Speed Reading (3) CSU RPT 1
Lecture 3 hours.
Emphasizes the development of reading speed, comprehension, and vocabulary through practice with various audio-visual devices. Emphasis is placed on applying techniques to both study and leisure reading.

36 Psychology of Chemical Dependency (3) CSU
Lecture 3 hours.
Prerequisite: *Psychology 1 or 6.*
Introduces causes of alcohol and drug usage and addiction and their effect on human behavior. Examines the effects of various types of drugs on the brain and nervous system. Also examines the contribution of heredity and environment. Discusses treatment programs, education and prevention.

37 Psychology of Codependency and Family Systems (3) CSU
Lecture 3 hours.
Prerequisite: *Psychology 1 or 6.*
Studies the effects of chemical dependency on family systems and individuals within the family. Addiction is a family disease. When one member of the family unit is chemically dependent, the entire system becomes dysfunctional. An exploration will be made of codependency, the adult child syndrome, breaking the cycle of addiction, child abuse, sexual abuse, eating disorders, and family violence.

40 Psychology of Parent Child Relations (3) CSU
Lecture 3 hours.
Presents a program for parents and others responsible for managing or raising children.

41 Life Span Psychology (3) UC:CSU
Lecture: 3 hours.
Note: *Concurrent enrollment in Psychology 81 is strongly recommended.*
Prerequisite: *Psychology 1 or 6.*
An introduction to psychological development from infancy through old age, including genetic, physical, and social influences on perception, learning, memory, intelligence, personality, self-concept, and social roles; tasks, changes, and adjustments related to each phase of the life cycle.

42 Organizational Psychology (3) CSU
Lecture 3 hours.
Assists supervisory personnel in understanding the people and the organizations they deal with; emphasis on the psychological aspects, perceptions, learning processes, emotions, attitudes, personalities, and group dynamics.

43 Principles of Group Dynamics I (3) CSU
Lecture 3 hours.
Prerequisite: *Psychology 1 or 6.*
Introduces the student to the dynamics of group interactions with an emphasis upon the individual's first-hand experience as the group studies itself. Under supervision, the factors involved in problems of communication, effective interpersonal skills and individual growth will be highlighted. In addition, factors involved in group problem-solving, leadership, change and productivity will be examined.

51 Psychology of Consciousness (3) UC:CSU
Lecture 3 hours.
Prerequisite: *Psychology 1 or 6.*
Study of modern research into the psychology of consciousness and altered states of consciousness, such as sleep, drugs, meditation, biofeedback, extrasensory perception, hypnosis, and creativity. The study of physiological concomitants is included.

52 Psychological Aspects of Human Sexuality (3) UC:CSU
Lecture 3 hours.
Prerequisite: *Psychology 1.*
Explores the psychological aspects of human sexuality. Addresses areas of sexual development and functioning as they have meaning for the individual as he/she develops his/her core awareness of self and sexual identity. Topics include male and female anatomy and function of sex organs; genesis of sexuality; myths and fallacies regarding the sexual process; its significance as a life function; dysfunction and variant behavior.

60 Stress Management (3) CSU
Lecture 3 hours.
Examines methods of managing environmental, organizational, social and internal stress in an effort to promote more effective coping on the part of the individual in occupational, interpersonal and everyday life situations.

66 Introduction to Critical Thinking (3) UC:CSU
Lecture 3 hours.
This course covers the nature of critical thinking, models and strategies, common fallacies of reasoning, self regulation in the thinking process, application of critical thinking to specific areas, and evaluation of problem solving techniques.

81 Field Work I (3) †UC:CSU RPT 1
Lecture 1 hour; laboratory 5 hours.
Recommended: *Concurrent enrollment or previous completion of Child Psychology or Life Span Psychology.*
Provides a lecture-observation-activity course in which students function as assistant teachers at the Campus Child Development Center under the supervision of its professional staff and the course instructor.

185 Directed Study - Psychology (1) †UC:CSU RPT 2

285 Directed Study - Psychology (2) †UC:CSU

385 Directed Study - Psychology (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Psychology on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - Psychology (1) CSU RPT 3

921 Cooperative Education - Psychology (2) CSU RPT 3

931 Cooperative Education - Psychology (3) CSU RPT 3

941 Cooperative Education - Psychology (4) CSU RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Limits to transfer credit: *See Cooperative Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

**UC Credit Limit: Psychology 1 and 6 combined, maximum one course.*

Public Relations

1 Principles of Public Relations (3) CSU
Lecture 3 hours.
Evaluates public relations as a growing profession. Looks at the job opportunities for the practitioner, internal and external PR and the staff as well as the counselor tasks. Investigates relationships with the media, organizing and executing campaigns. The use of photography, graphics and marketing is studied.

Reading

See **Psychology, English** and **Developmental Communications**

Real Estate

1 Real Estate Principles (3) CSU
Lecture 3 hours.
Surveys the fundamentals and principles of real estate, including such major topics as real estate practices, law, finance, appraisal, building and construction, investment and property management. Vocational opportunities in real estate are also discussed. This course is basic in terminology and principles to all other real estate courses.

3 Real Estate Practices (3) CSU
Lecture 3 hours.
Prerequisite: *Real Estate 1.*
Covers the problems of establishing and operating a real estate brokerage business. Topics include establishing the office, securing listings and prospects, showing properties, closing sales, financing, property management, rentals and leases, appraising, and a survey of the California Real Estate Act. This course applies toward the mandatory requirement for the broker's license.

5 Legal Aspects of Real Estate I (3) CSU
Lecture 3 hours.
Prerequisite: *Real Estate 1 and 3; Business 5 is recommended.*
Covers principles of property ownership and management in their business aspects, with special references to the law of California as it applies to community property, conveyances, deeds, trust deeds, mortgages, leases, brokerage, mechanics' liens, homesteads, wills and estates, and taxes. This course applies toward the mandatory requirement for the broker's license.

6 Legal Aspects of Real Estate II (3) CSU
Lecture 3 hours.
Prerequisite: *Real Estate 5.*
Covers legal aspects of real estate problems, an advanced study of agency contracts, commissions, an introduction to tax problems in residential and commercial property, advanced problems in security instruments, types of ownership, insurance, subdivisions and zoning, condemnation, construction liens, landlord-tenant, and an introduction to related agencies and activities, including loans (mineral, oil and gas), administrative procedures, and judicial review.

7 Real Estate Finance I (3) CSU
Lecture 3 hours.
Prerequisite: *Real Estate 1 and 3.*
Studies the forms and sources of financing property, construction and permanent financing. Covers the procedures for F. H. A. , Cal. Vet, and V. A. financing, mortgage capital from savings and loan associations, commercial banks, insurance companies, and other sources, junior mortgages, appraising for mortgages, loan ratios, and leaseholds. This course applies toward the mandatory requirement for the broker's license.

8 Real Estate Finance II (3) CSU
Lecture 3 hours.
Prerequisite: *Real Estate 7.*
Studies financing of commercial, industrial, and special-purpose properties; mathematical analysis of return on equity dollars; effect of mortgage terms on debt service and prices; analysis of financial statements; pensions as a source of funds; technical aspects of construction financing; Real Estate Mortgage Trusts; corporate conglomerates; syndications; development of feasibility studies; subordinated land sales, sale and leaseback, all-inclusive deeds of trust, and other creative financing techniques; government participation through social action programs.

9 Real Estate Appraisal I (3) CSU
Lecture 3 hours.
Prerequisite: *Real Estate 1 and 3.*
Emphasizes appraisal methods for single-family residence. Covers valuation principles emphasizing the cost and comparative approaches. Factors influencing value are discussed, such as architecture styles, type of construction, lot valuation, depreciation, and other related subjects. This course is designed for those presently employed in the real estate field, or for those interested in the subject matter.

10 Real Estate Appraisal II (3) CSU
Lecture 3 hours.
Prerequisite: *Real Estate 9.*
Emphasizes appraisal methods for multiple-dwelling residences, such as apartment buildings and hotels, office buildings, shopping centers, industrial properties, and other income-producing properties. Reviews the Cost and Comparative techniques for valuation but emphasizes the Income Approach to valuation. Topics such as operating expenses, methods of capitalization, depreciation techniques, gross multiples, and other related subjects are discussed.

16 Income Tax Aspects of Real Estate (3) CSU
Lecture 3 hours.
Prerequisite: *Real Estate 1.*
Recommended for advanced real estate students.
Covers the impact of Federal and California State income tax laws upon the purchase, sales, exchange, and use of real property. Includes depreciation, capital gains, installment sales, prepaid interest, and tax-saving opportunities.

18 Real Estate Investments I (3) CSU
Lecture 3 hours.
Prerequisite: *Real Estate 1.*
Provides an advanced course in the analysis of investment factors in evaluation of commercial, industrial, and residential properties. Includes site locations, zoning and other record restrictions, financing, feasibility studies, exchanges, sales and leaseback, cooperatives, and condominiums.

Cooperative Education - Work Experience
See Business - Cooperative Education.

Recreation

185 Directed Study - Recreation (1) CSU RPT 2

385 Directed Study - Recreation (3) CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Recreation on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - Recreation (1) CSU RPT 3

921 Cooperative Education - Recreation (2) CSU RPT 3

931 Cooperative Education - Recreation (3) CSU RPT 3

941 Cooperative Education - Recreation (4) CSU RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

Limits to transfer credit: *See Cooperative Education Credit Guide.*

Secretarial Science

See Office Administration

Sign Language

See American Sign Language

Sociology

1 Introduction to Sociology (3) UC:CSU (CAN SOC 2)
Lecture 3 hours.
Presents an orientation to the field of sociology including such sociological concepts and issues as culture and subculture; development of the self; gender and age roles; social class and caste; groups, communities, collectivities, and organizations; deviance; racism; human institutions: family, religion, education, government, economics; and population change in society.

2 American Social Problems (3) UC:CSU (CAN SOC 4)
Lecture 3 hours.
Deals with the sociological identification and analysis of contemporary social problems in the United States. Analyzes aspects of social and cultural change which include issues of personal demoralization and social disorganization.

3 Crime and Delinquency (3) UC:CSU
Lecture 3 hours.
Examines the nature and extent of crime and delinquency; theories of causation, types of juvenile and adult offenses, and efforts by society to cope with law violations. Includes programs for prevention, correction, and rehabilitation.

4 Sociological Analysis (3) *UC:CSU
Lecture 3 hours.
Considers approaches to the scientific analysis of society and social institutions. Analyzes various methodological tools utilized in social science research and emphasizes clarification of the basic social science issues. Students will analyze and organize data collected in the field.

6 The Social Environment (3) UC:CSU
Lecture 3 hours.
Investigates the movements, trends, and distribution of population and their effect upon the structure, character, and social life of rural, suburban, and urban societies, with particular emphasis upon changes in the United States. Combines an anthropological and sociological orientation to human ecology and demography.

7 Juvenile Delinquency (3) CSU
Lecture 3 hours.
Relates delinquency to other areas of social disorganization such as alcoholism and drug addiction. A course for students, parents, social workers, and teachers in the problems relating to juveniles ranging in type from the potential delinquent to the institutionalized offender.

11 Ethnic and Racial Minorities in the United States (3) UC:CSU
Lecture 3 hours.
Emphasizes cultures of ethnic groups in the United States; explores 'race' and racism; examines the challenge of achieving unity with diversity in the United States.

13 Society and Personality (3) UC:CSU
Lecture 3 hours.
Studies the relationship between individual personality and the social milieu. Looks at research investigations and their findings. Devotes attention to child training and culture patterns in some western cultures compared to some non-western cultures.

15 Religion and American Society (3) UC:CSU
Lecture 3 hours.
Explores contemporary religious forms and values as they relate to social behavior and political responsibility; considers traditional religions, religious subcultures, and cults; emphasizes United States but includes international perspective.

17 Introduction to Counseling (3) CSU
Lecture 3 hours.
Introduces the problems, techniques, and sociopsychological theories of counseling. Includes the study of behavior as a function of factors operating in groups. Provides an orientation in techniques for the development of leadership and adjustment in behavior.

18 Introduction to Social Research Methods (3) *UC:CSU
Lecture 3 hours.
Presents basic social research problems. Includes discussion of certain aspects of the sociological methods and an introduction to specific techniques and procedures. Applies the scientific method to social phenomena and analyzes the techniques and methods of collecting, classifying, interpreting, and presenting social data.

28 The Family: A Sociological Approach (3) CSU
Lecture 3 hours.
Presents the family as a social institution, mate selection and marriage adjustment, structure and function, interaction, cross- cultural family patterns, historical changes, and contemporary social influences on the family.

30 Technology and Modern Society (3) UC:CSU
Lecture 3 hours.
Explores the impact of technological change on the family, education, religion, medicine, and government. Considers popular treatments of future social trends and their implications for the individual and for social structure.

911 Cooperative Education - Sociology (1) CSU RPT 3

921 Cooperative Education - Sociology (2) CSU RPT 3

931 Cooperative Education - Sociology (3) CSU RPT 3

941 Cooperative Education - Sociology (4) CSU RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Limits to transfer credit: *See Cooperative Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

UC Credit Limit: *Sociology 4 and 18 combined, maximum one course.*

Spanish

1 Elementary Spanish I (5) UC:CSU (CAN SPAN 2)
Lecture 5 hours.
Recommended: *Concurrent enrollment in Spanish 101.*
Recommended: *Eligibility for English 101, or eligibility for and concurrent enrollment in English 28. Students with previous knowledge of Spanish should enroll in a higher level. Proficient native speakers should enroll in Spanish 4, 5, or 6.*

Introduces the fundamentals of pronunciation and grammar, practical vocabulary, and useful phrases. Emphasizes the ability to understand, speak, read, take dictation in, and write simple Spanish. Comprises basic readings in geography, customs and culture of Spain and Spanish America. English is used to explain grammatical concepts but the class is conducted as much as possible in Spanish. Corresponds to the first year of highschool Spanish.

2 Elementary Spanish II (5) UC:CSU (CAN SPAN 4)
Lecture 5 hours.
Prerequisite: *Spanish 1 or one year of high school Spanish with a grade of "C" or better.*
Recommended: *Concurrent enrollment in Spanish 101.*
Recommended: *Eligibility for English 101, or eligibility for and concurrent enrollment in English 28. Students with previous knowledge of Spanish should enroll in a higher level. Proficient native speakers should enroll in Spanish 4, 5, or 6.*

Continues with the development of understanding, speaking, reading and writing skills in Spanish. Classes are conducted almost entirely in Spanish and are aimed at the acquisition of fluency in spoken Spanish. Course content includes material on contemporary life and culture in Spanish-speaking countries. Corresponds to the second year of high school Spanish.

3 Intermediate Spanish I (5) UC:CSU (CAN SPAN 8)
Lecture 5 hours.
Prerequisite: *Spanish 2 or two years of high school Spanish with a grade of "C" or better.*
Recommended: *Concurrent enrollment in Spanish 101.*
Recommended: *Eligibility for English 101, or eligibility for and concurrent enrollment in English 28. Students with previous knowledge of Spanish should enroll in a higher level. Proficient native speakers should enroll in Spanish 4, 5, or 6.*
Note: *Concurrent enrollment in Spanish 8 is strongly recommended for non-native speakers.*

Assists the student in the further development of proficiency in understanding, speaking, reading and writing Spanish. Reviews grammatical concepts learned in previous courses and emphasizes idiomatic construction and conversational ability. Introduction to the reading of literature. Discusses Spanish and Spanish-American life and problems.

4 Intermediate Spanish II (5) UC:CSU (CAN SPAN 10)
Lecture 5 hours.
Prerequisite: *Spanish 3 or three years of high school Spanish with a grade of "C" or better.*
Recommended: *Concurrent enrollment in Spanish 101.*
Note: *Concurrent enrollment in Spanish 8 is strongly recommended for non-native speakers.*

Emphasizes vocabulary building and composition. Gives an introduction to Spanish or Spanish-American authors.

5 Advanced Spanish I (5) UC:CSU
Lecture 5 hours.
Prerequisite: *Spanish 4 with a grade of "C" or better.*
Note: *Concurrent enrollment in Spanish 8 is strongly recommended for non-native speakers.*

Introduces the student to some of the important movements in Latin-American literature. Includes readings in prose and poetry from representative authors of Latin America and continues the study of advanced composition and grammar, through oral and written reports in Spanish.

6 Advanced Spanish II (5) UC:CSU
Lecture 5 hours.
Prerequisite: *Spanish 5 with a grade of "C" or better.*
Note: *Concurrent enrollment in Spanish 8 is strongly recommended for non-native speakers.*

Introduces some of the important movements in Latin-American literature. Advanced readings in prose and poetry from representative authors of Latin America. Continues the study of advanced composition and grammar, oral and written reports.

8 Conversational Spanish (2) CSU RPT 3
Lecture 2 hours.
Prerequisite: *Spanish 2 with a grade of "C" or better.*
Recommended: *Concurrent enrollment in Spanish 101.*

Develops conversational skill and fluency. Emphasizes idioms, correct use of tenses of Spanish verbs, and fundamental sentence structure. Audio-visual aids supplement the program of instruction.

10 Latin-American Civilization (3) UC:CSU
Lecture 3 hours.
Same as History 25. Credit not given for both courses.

A study of the diverse cultures of Spanish and Portuguese speaking countries and peoples, together with the themes, institutions, beliefs, and symbols that have endured through time and their quest to define and understand their identity in their actions, in their memories of the past, and in their dreams of the future.

12 Contemporary Mexican Literature (3) UC:CSU
Lecture 3 hours.
Humanities Credit
Note: *Readings are in English translation. Knowledge of the Spanish language is not required.*

Lectures and discussions in English on the literature and history of Mexico during the twentieth century with a background of earlier works. Students will read translations of principal writers. This course is the same as Chicano Studies 42, Contemporary Mexican Literature, which is offered by other colleges in the Los Angeles Community College District.

15 Great Books of Latin American Literature (3) UC:CSU
Lecture 3 hours.
Humanities Credit
Note: *Readings are in English translation. Knowledge of the Spanish language is not required.*

Introduces selected writings of Latin American authors such as Mariano Azuela, Juan Rulfo, Ricardo Guiraldes, Romulo Gallegos, Miguel Asturias, Augustin Yanez, Jose Ruben Romero, Gregorio Lopez y Fuentes, Mario Vargas Llosa, Julio Cortazar, Manlio Argueta, Jorge Icaza, Jose Donoso, Manuel Puig and others, with particular emphasis on contemporary writers and the "Boom Movement". All readings, lectures, and discussions will be in English.

25 Spanish American Short Story in Translation (3) UC:CSU
Lecture 3 hours.
Humanities Credit
Note: *Readings are in English translation. Knowledge of the Spanish language is not required.*

Surveys the different literary movements and tendencies that have marked the evolution of Spanish American literature from the 1830s to the boom and beyond: Romanticism, Realism, Naturalism, Modernism, Criollismo, Cosmopolitanism, and Surealism. All readings, lecture, and discussions will be in English.

26 Understanding Latin America through Film (3) UC:CSU
Lecture 3 hours.
Humanities credit

Examines feature films as a communicative art form that offers a thematic approach to the understanding of the diverse multicultures of Latin America. The films analyzed reflect four basic themes: Transition and Change, Cultural Contrasts, Human Rights, and Women and Society. All readings, lectures, and discussions are in English. No knowledge of Spanish is necessary.

27 Cultural Awareness Through Advanced Conversation (3) UC:CSU
Lecture 3 hours.
Humanities credit
Prerequisites: *Spanish 3 with a grade of "C" or better.*
Develops oral facility and cultural awareness, emphasizing speaking and understanding Spanish in everyday situations common to Latin America. Good grasp of grammar is a prerequisite. Prepares student to live in a Spanish-speaking country.

101 Spanish Language Laboratory (1) CSU RPT 3
Laboratory 2 hours.
Notes: *Recommended for all students enrolled in Spanish 1, 2, 3, 4, and 8.*
This is a credit/no-credit course. Students receive one unit of college credit (with no letter grade) by spending at least 32 hours over the semester using the equipment and regularly handing in the lab workbook assignments to their instructor. This language workshop uses multi-media (video, audio and computers) to enhance instruction. Students must be currently enrolled in a Spanish language course.

185 Directed Study - Spanish (1) †UC:CSU RPT 2

285 Directed Study - Spanish (2) †UC:CSU

385 Directed Study - Spanish (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Spanish on a contract basis under the direction of a supervising instructor.

Special Education

See also **Learning Skills**

1 Introduction and Survey to Learning Disabilities (3) (NDA) RPT 3
Lecture 3 hours.
Formerly Learning Skills 12
Prerequisites: *Learning Skills 185.*
Course provides intensive introduction to learning disabilities. Students will read literature related to subject, be able to identify varieties of learning disabilities and related compensatory strategies for particular learning deficits. Students will identify personal intervention strategies to maximize academic efforts.

2 Reading and Composition for the Learning Disabled Student (3) (NDA) RPT 3
Lecture 3 hours.
Formerly Learning Skills 14
Prerequisites: *Learning Skills 185.*
Special Education 2 will provide learning disabled students an opportunity to improve reading and writing skills through clinical assessment and individualized prescriptive tutorials that include lectures, small group discussions and one-to-one assistance in reading, writing and verbalizing skills.

3 Computer-Directed Writing Skills (2) (NDA) RPT 3
Lecture 1 hour; laboratory 2 hours.
Formerly Learning Skills 21
Prerequisites: *Learning Skills 185, Special Education 85.*
Students will master precomposition and composition skills in order to write simple narrative/informative essays. Using IBM-based computer systems, learning disabled students will develop basic composition skills and demonstrate mastery of grammar, punctuation and spelling.

8 Adaptive Personal Development (2) (NDA)
Lecture 2 hours.
Group study of selected topics, the titles to be specified in the schedule of classes.

10 Basic Vocabulary for the Hearing Impaired I (3) (NDA) RPT 3
Lecture 3 hours.
Normally offered in the Fall semester.
Provides the opportunity to learn essential words encountered in college reading. Applies the words in student-composed sentences. Compares and contrasts meanings in Ameslan with meanings in English. Develops spelling ability and emphasizes the habit of using the dictionary and other tools for building vocabulary.

11 Basic Vocabulary for the Hearing-Impaired II (3) (NDA) RPT 3
Lecture 3 hours.
Normally offered in the Spring semester.
Continues vocabulary development of hearing-impaired students for the purpose of improving reading and writing skills.

21 Reading Clinic (3) (NDA) RPT 3
Lecture 3 hours.
Assists the hearing-impaired student in developing sight vocabulary, reading comprehension, and word attack skills. Provides opportunity for increasing speed and efficiency in reading.

24 Practical Mathematics for the Hearing Impaired (3) (NDA) RPT 3
Lecture 3 hours.
Covers mathematical concepts up to and including some fundamental algebra. The concepts of fractions, decimals, percent, measurement, and word problem attack skills will be emphasized.

29 English for the Hearing Impaired Student (6) (NDA) RPT 3
Lecture 6 hours.
Assists the student who is hearing impaired with upgrading English language skills on an individual basis. The course emphasizes vocabulary, reading and writing skills.

34 Career Planning and Preparation for Disabled Students (1) (NDA) RPT 1
Lecture 1 hour.
Comprehensive approach to Career Planning for Disabled Students. This course is designed to help students define valid career choices and prepare for job readiness. Topics include: career assessment inventories, job search strategies; including resume writing and interviewing, Rights/Legislative protection.

35 Computer-Assisted Vocabulary Development (1) (NDA) RPT 3
Laboratory 2 hours.
Students will work directly under the supervision of an instructor, and work with Special Services microcomputers which will perform the instruction and testing of new vocabulary. Students can learn up to 2900 words.

49 Computer-Assisted Spelling Development (1) (NDA) RPT 2
Laboratory 2 hours.
Students use a computer to learn, practice and be tested on up to 750 commonly misspelled words. All work is individualized, and students learn only those words that they do not know.

85 Adaptive Word Processing (1) (NDA) RPT 1
Laboratory 2 hours.
Prerequisite: *Knowledge of keyboarding.*
Provides hands-on training in basic word processing skills for students who because of their disability would otherwise be unable to access the computer. This course is not intended to train students for a job in word processing.

Speech Communication

101 Oral Communication I (3) UC:CSU (CAN SPCH 4)
Lecture 3 hours.
Prerequisite: *Eligibility for English 28 recommended.*
Offers training in the theory of speech communication and the practice of effective preparation and delivery of structured oral presentations.

103 Business and Professional Speaking (3) CSU RPT 2
Lecture 3 hours.
This course enables the student to apply speech communication skills to the business setting. Structured oral presentations are used to gain the skills required for business meetings, conferences, interviews and discussions.

104 Argumentation (3) UC:CSU (CAN SPCH 6)
Lecture 3 hours.
Prerequisite: *Eligibility for English 28 recommended.*
Explores the critical thinking process, emphasizing the use of logic, reasoning, and evidence in the presentation and analysis of sound arguments. Students will participate in debates.

111 Voice and Articulation (3) CSU
Lecture 3 hours.
Provides speech experiences to develop awareness of correct vowel and consonant articulation through the use of phonetic practice. Covers vocabulary, phonetic and diacritical symbols, alphabet and the vocal mechanism.

113 English Speech as a Second Language (3) CSU RPT 1
Lecture 3 hours.
Stresses speaking of English, pronunciation, idiomatic expressions, phraseology, rhythmic inflections, grammar, vocabulary building, and oral composition. The course is designed for students with foreign language backgrounds.

121 The Process of Interpersonal Communication (3) UC:CSU (CAN SPCH 8)
Lecture 3 hours.
Prerequisite: *Eligibility for English 28 recommended.*
This lecture/activity/discussion course examines the theory, scope and purpose of human communication.

122 Communication Across Cultures (3) UC:CSU
Lecture 3 hours.
Surveys the verbal and non-verbal ways cultures of the world communicate. It focuses on communication fundamentals, language, cultural origins, and methods of handling intercultural communication conflicts. Students will participate in researched oral discussions of selected cultural groups.

130 Introduction to Oral Interpretation of Literature (3) UC:CSU
Lecture 3 hours.
Prerequisite: *Eligibility for English 28 recommended.*
Develops the student's ability to understand, appreciate, and perform various forms of literary art. Emphasis is placed on the selection, analysis, evaluation, and adaptation of significant literary materials as well as on their artistic oral presentation.

185 Directed Study - Speech Communication (1) 1UC:CSU RPT 2

285 Directed Study - Speech Communication (2) 1UC:CSU

385 Directed Study - Speech Communication (3) 1UC:CSU
Conference 1 hour per unit.
Prerequisite: *Speech Communication 101, 102, or 104.*
Allows students to pursue directed, individualized study in the field of Speech Communication on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - Speech Communication (1) CSU RPT 3

921 Cooperative Education - Speech Communication (2) CSU RPT 3

931 Cooperative Education - Speech Communication (3) CSU RPT 3

941 Cooperative Education - Speech Communication (4) CSU RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.
Limits to transfer credit: *See Cooperative Education Credit Guide.*

Statistics

1 Elementary Statistics I for the Social Sciences (3) UC:CSU (CAN PSY 6)
Lecture 3 hours.
Prerequisite: *Mathematics 125.*
Note: *Students may be required to present proof of completion of Intermediate Algebra or its equivalent at the first class meeting.*
UC Credit limit: *Statistics 1 combined with Business 15 and Mathematics 227, maximum one course.*
Covers both descriptive and inferential statistics. Topics include methods used to collect and describe data, central tendency, variability, the normal curve, correlation, prediction, sampling distributions, probability and hypothesis testing.
Emphasis is on conceptualization as well as data analysis.

185 Directed Study - Statistics (1) CSU RPT 2

285 Directed Study Statistics (2) CSU

385 Directed Study - Statistics (3) CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Statistics on a contract basis under the direction of a supervising instructor.

Study Skills

See **Psychology** and **Developmental Communications**

Supervision

1 Elements of Supervision (3) CSU
Lecture 3 hours.
Introduces in general terms the total responsibilities of a supervisor in industry. Topics include organization, duties and responsibilities, human relations, grievances, training, rating promotion, quality-quantity control and management- employee relations.

2 Basic Psychology for Supervisors (3) CSU
Lecture 3 hours.
Prerequisite: *Supervision 1.*
Teaches the basic principles of dealing with people in business and industry to assist the supervisor in understanding the people with whom he works. Emphasizes the psychological aspects of emotion, attitudes, perceptions, personalities, learning processes, motivation, and job adjustment.

6 Labor-Management Relations (3)
Lecture 3 hours.
Studies employer-employee relations in government and business. Includes the supervisor's responsibility for effective management-employee relations; historical background of unions and other employee groups; impact and effect of federal, state and local legislation on wages, hours, grievances, discipline and other working conditions; and employer and employee rights and obligations under a civil service system. Considers the role of employee organizations in government agencies versus private industry.

11 Oral Communications (3)
Lecture 3 hours.
Provides classroom practice to improve speaking skills necessary for management. Builds personal confidence. Develops poise, vocabulary, gestures and the ability to speak extemporaneously. Uses role playing to develop speaking skills in typical business situations. Promotes leadership characteristics, initiative and drive.

Theater

100 Introduction to the Theater (3) UC:CSU (CAN DRAM 18)
Lecture 3 hours.
A survey and theatre appreciation course for both majors and non-majors. The class explores what theater is all about, what goes on in theatre, and what it means from an audience perspective. The course seeks to supply the student with insights into the theatrical processes in order to give him or her a wider basis for evaluation and enjoyment. All aspects of play production are explored: playwriting, producing, directing, acting, criticism, theatre architecture, set design, costume design, lighting design, and the role of the audience.

105 Drama Digest (1) CSU RPT 3
Lecture 1 hour.
Recommended for all majors.
Current theatre and performing events are explored! Provides opportunities to attend plays, view acting scenes from classes and productions, learn about all the artists who create the "magic" of theatre; and to discuss these with faculty members and guest artists.

110 History of the World Theater (3) UC:CSU
Lecture 3 hours.
Studies the development of the theater from earliest periods to the present. Play readings, films, and historical trends are discussed.

115 History of the American Theater (3) UC:CSU
Lecture 3 hours.
Considers the development of Theater Arts in the United States from early beginnings in America to the present.

125 Dramatic Literature (3) UC:CSU
Lecture 3 hours.
Same as English 213. Credit not given for both courses.
Surveys the major dramatic forms in the Western World from the early beginnings to the present time. Play reading for pleasure, appreciation, and interpretation are stressed. Analysis and criticism follow.

130 Playwriting (3) CSU RPT 1
Lecture 3 hours.
Offers an opportunity to present original play ideas and treatments to be analyzed and criticized. Through class lectures and discussion of text materials, students will attain a deeper knowledge of the dramatic construction of a play.

225 Beginning Direction (3) *UC:CSU
Lecture 3 hours.
Prerequisite: *Theater 270 and one technical theater class (Theater 300 through 400).*
Leads the student from the basic script through all the elements necessary to get the play on stage: interpretation, casting, scheduling, movement, blocking, business, pace and timing. Provides firm guidance for beginning directors in the technical handling of a script from preparation of a prompt script to working out of technical plots.

232 Play Production (2) *UC:CSU RPT 3
Laboratory 6 hours.
Prerequisite: *Theater 270, and 342 or 422 or 411 (may be concurrently registered in Theater 342, 411 or 422). Required audition will be held the first week during which casts are selected for faculty directed productions.*
Represents the culmination of the student's acting experience. Here students demonstrate their ability to perform in fully staged productions for audiences of the general public, and are encouraged, wherever possible, to develop from minor roles to the creation of more demanding characterizations.

240 Voice and Articulation for the Theater (3) **UC:CSU
Lecture 3 hours.
Deals with the fundamentals of good voice, good speech, and dynamic vocal expressiveness. Toward these goals the following elements are studied: breathing, posture, resonance, loudness, timing, pitch, and clear articulation.

243 Dialects (2) CSU
Lecture 1 hour; laboratory 2 hours.
Prerequisite: *Theater 240.*
Provides training in phonics and in the performance of regional and foreign dialects which are most applicable to the theater artist.

250 Children's Theater Production (2) CSU RPT 3
Laboratory 6 hours.
Prerequisite: *Theater 270, and 342, 411 or 422 (May be concurrently registered in Theater 342, 411 or 422).*
Required auditions are held the first week of class, during which casts are selected for faculty directed productions. This class is identical to Theater 232, the single exception being the kind of material presented.

262 Special Projects (2) 1UC:CSU RPT 3
Laboratory 4 hours.
Students are given opportunity to plan, rehearse, stage and produce projects for presentation before student audiences, or otherwise increase knowledge and experience in dance theater.

265 Movement for the Actor (2) **UC:CSU RPT 1
Lecture 1 hour; laboratory 2 hours.
Selections from plays, poetry and prose are utilized to train the actor to approach the text from a "movement" point of view. Exercises and improvisations in sensory-motor awareness lead to flexibility, balance, energy and expressiveness on stage.

270 Beginning Acting (3) **UC:CSU (CAN DRAM 8)
Lecture 3 hours.
Provides instruction in the basic techniques of acting. Prepares the student for subsequent acting classes, and meets one of the requirements for the production class.

271 Intermediate Acting (2) **UC:CSU (CAN DRAM 22)
Lecture 1 hour; laboratory 2 hours.
Prerequisite: *Theater 270*
Provides more advanced instruction in acting fundamentals through the medium of scene study. Greater depth is expected in both characterization and script analysis.

273 Advanced Acting (2) **UC:CSU RPT 1
Lecture 1 hour; laboratory 2 hours.
Prerequisite: *Theater 271*
Continues the in-depth work of Intermediate Acting utilizing scenes from mature works of drama. Presentational skills are sharpened as the student is readied for performance.

291 Rehearsals and Performances (1) *UC:CSU RPT 3
Laboratory 3 hours, plus rehearsals and performances.
Recommended: *Theatre 270, 342, 422, or equivalent. Auditions and interviews are held the first week of classes, during which casts and technical crews are selected for productions.*
In this course students are actively involved in the production of plays for college and public performances. Primary emphasis is on the ability to perform acting and stage crew assignments. Students may also work in the areas of publicity, house management, technical theater, or costuming.

292 Rehearsals and Performances (2) *UC:CSU RPT 3
Laboratory 6 hours, plus rehearsals and performances.
Recommended: *Theatre 270, 342, 422, or equivalent. Auditions and interviews are held the first week of classes, during which casts and technical crews are selected for productions.*
In this course students are actively involved in the production of plays for college and public performances. Primary emphasis is on the ability to perform acting and stage crew assignments. Students may also work in the areas of publicity, house management, technical theater, or costuming.

300 Introduction to Stage Craft (3) *UC:CSU (CAN DRAM 12)
Lecture 3 hours.
Through lecture and laboratory demonstration, covers all phases of scene construction, painting, mounting and running of stage scenery. Also covers the use of sound, lighting equipment, and stage properties. Additional instruction is given in stage terminology and the organization and management of stage crew activities.

310 Introduction to Theatrical Lighting (3) *UC:CSU
Lecture 3 hours.
Prerequisite: *Theater 300.*
Presents the basic principles of theatrical lighting, designed to familiarize the student with the equipment, the medium, and the design functions of stage lighting.

315 Introduction to Theatrical Scenic Design (3) *UC:CSU
Lecture 3 hours.
Prerequisite: *Theater 300.*
Covers training and practice in the problems of designing for stage including construction and painting techniques, development of the design concept, budgeting, and modeling the design.

342 Technical Stage Production (2) *UC:CSU RPT 3
Laboratory 6 hours.
Note: *Meets Theater 232 prerequisite.*
Provides work in all technical aspects of play production in terms of study and laboratory practice, including stage managing, lighting, scene construction, painting, designing, and use of stage equipment. Offers experience in stage crew and technical direction. Required of all first and second semester students.

400 Costume Periods and Styles (3) CSU
Lecture 3 hours.
Studies major developments in costume during successive historic periods. Explores the influence of costumes on the movement, manners, and morals of the times. Introduces research methods and sources, and application and adaptation of period detail and style to the wearing and construction of stage costumes.

411 Costuming for the Theater (3) *UC:CSU RPT 2
Lecture 2 hours; laboratory 2 hours.
Note: *Meets Theater 232 prerequisite.*
Surveys theatrical costuming as a craft and as a design art. Introduces design principles, research methods, pattern and construction techniques, sewing equipment use and maintenance, and the functions of costume personnel in production work. Lab work may include assignments on current department productions.

422 Applied Costuming for the Theater (2) CSU RPT 3
Laboratory 6 hours.
Note: *Meets Theater 232 prerequisite.*
Provides practical experiences in various areas of costume production and presentation. Assignments include: assistance in costume construction and selection; wardrobe mistress and master responsibilities; maintenance and storage of costumes. All work assignments are on current department productions.

450 Beginning Stage Make-Up (2) *UC:CSU
Lecture 1 hour; laboratory 3 hours.
Introduces students to the basic techniques and materials of theatrical make-up, and gives practice in its application. Students will learn to apply straight, corrective, middle age, old age, and fantasy make-up. The application of facial hair, scars and bruises and nose putty will also be studied. Lab work may include assignments on current department productions.

185 Directed Study - Theater (1) †UC:CSU RPT 2

285 Directed Study - Theater (2) †UC:CSU

385 Directed Study - Theater (3) †UC:CSU
Conference 1 hour per unit.
Allows students to pursue Directed Study in Theater on a contract basis under the direction of a supervising instructor.

911 Cooperative Education - Theater (1) CSU RPT 3

921 Cooperative Education - Theater (2) CSU RPT 3

931 Cooperative Education - Theater (3) CSU RPT 3

941 Cooperative Education - Theater (4) CSU RPT 3
Prerequisite: *Employment in a field related to the student's major as verified by the signature of the Cooperative Education Advisor.*
Limits to transfer credit: *See Cooperative Education Credit Guide.*
Supervised training is conducted in the form of on-the-job training in an employment area that will enhance the student's educational goals.

**UC Credit Limit: Any or all courses combined, maximum 12 units.*
***UC Credit Limit: Any or all courses combined, maximum 12 units.*

Typewriting

See listing under **Office Administration**

Welding

See listing under **Industrial Technology - Welding**

Woodworking

See listing under **Industrial Technology - Woodworking**

Word Processing

See listing under **Office Administration**

Faculty

Accardo, Donna L. (1989)
Professor of English
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M.S. Loma Linda University

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Basil, Kathleene L. (1965)
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Teacher, Campus Child Development Center
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M.S., University of Georgia

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Assistant Professor of Computer Science
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M.S., University of California, Northridge

Carthew, John A. (1964)
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A.B., Immaculate Heart College
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Professor of Counseling
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Curby, J. C. (Suzette) (1971)
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Eskelin, Gerald Ray (1973)
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M.A., D.M.E., Indiana University

Farnoush, Nader (1995)
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Professor of Counseling
Director, WoMen's Resource Center
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M.A., Loyola Marymount University

Flores-Esteves, Manuel (1989)
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Follett, Richard J. (1984)
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Forkeotes, Ann (1996)
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Associate Professor of Photography
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Gelber, Martin B. (1965)
Professor of Architecture
Advisor, Architecture
A.A., Los Angeles City College
B. Arch., University of Southern California
Licensed architect, California

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B.A., University of California, Riverside
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Ph.D., Claremont Graduate School

Pinkston, Howell (1970)
Professor of Art
B.S., M.A., Wayne State University

Ponsor, Judith (1980)
Professor of Nursing
R.N. Queen of Angels School of Nursing, Los Angeles
B.S. California State University, Los Angeles
M.N., University of California, Los Angeles

Pregerson, Bernardine S. (1976)
Professor of Microbiology
B.A., University of California, Berkeley
M.S., California State University, Northridge

Putnam, Gene E. (1989)
Associate Professor of Theater Arts
Department Chairperson, Theater
B.A., California State University, Fullerton
M.E.D., Whittier College
M.F.A., California State University, Fullerton

Putnam, Thomas C. (1992)
Associate Professor of Mathematics
B.S., M.A., Ph.D., University of California, Santa Barbara

Ramirez, Lucia (1984)
Professor of Counseling
A.A., Los Angeles City College
B.A., M.S., California State University, Los Angeles

Reiter, Kathleen L. (1975)
Director, Campus Child Development Center
B.A., M.A., California State University, Northridge

Rikel, James E. (1977)
Professor of Life Science
A.B., Whittier College
Ph.D., University of Southern California

Rinnander, Elizabeth A. (1981)
Associate Dean, Academic Affairs
B.A., M.Ed., University of Massachusetts, Amherst
Ed.D., University of California, Los Angeles

Robin, Florence K. (1975)
Professor of Library Science
Department Chairperson, Library
B.A., University of California, Los Angeles
M.L.S., University of Southern California

Rooney, Colleen (1975)
Professor of Counseling
A.B., University of San Francisco
M.A., California State University, Northridge

Rosdahl, Thomas (1986)
Associate Professor of Industrial Technology A.A.,
Los Angeles Pierce College
B.A., California State University, Los Angeles

Ross, Bernice L. (1986)
Professor of Psychology
B.A., M.A., University of California, Los Angeles
Ph.D., University of Southern California

Roth, Sheldon (1989)
Associate Professor of Counseling
B.A., M.S., California State University, Los Angeles

Rowe, Bruce M. (1971)
Professor of Anthropology
B.A., M.A., University of California, Los Angeles

Rudin, Brenda (1995)
Assistant Professor of Mathematics
B.A., Hunter College/City University of N.Y.
M.S., M.A., California State University, Northridge

Rupert, Dorothy W. (1994)
Dean, Resource Development and Community Relations
A.A., Los Angeles City College
B.A., University of California, Los Angeles
M.B.A., Pepperdine University

Russell, William H. (1984)
Professor of Geography
B.A., M.A., California State University, Northridge

Sanchez, Humberto (1996)
Assistant Professor of Business Administration
B.S., Montana State University
M.B.A., University of La Verne

Schleppenbach, Peter M. (1985)
Professor of Computer Science and Information Technology
B.A., University of California, Los Angeles
M.Ed., University of La Verne

Schneider, John (1980)
Professor of Music
B.A., University of California, Santa Barbara
M.A., Ph.D., University of Wales, Cardiff, England
A.R.C.M., Royal College of Music, London

Schneider, Sandra (1991)
Associate Professor of English
B.A., University of California, Irvine
M.A., Claremont Graduate School

Schutzer, David L. (1985)
Professor of Anthropology
A.A., Los Angeles Pierce College
B.A., California State University, Northridge
M.A., University of California, Los Angeles

Sears, Malcolm G. (1977)
Professor of Natural Resource Management
B.S., Humboldt State College

Seigel, David (1976)
Professor of Business
L.L.B., Cleveland Marshall Law School
J.D., Cleveland State University

Shapiro, Leland S. (1976)
Professor of Animal Science
B.S., M.S., California Polytechnic State University, San Luis Obispo
Ph.D., Oregon State University
Licensed Pamarian, State of California Registered Small Animal Dietitian

Sharpe, Kenneth J. (1984)
Professor of Electronics
Department Chairperson, Electronics
B.S., California State Polytechnic University, Pomona
M.A., California State University, Los Angeles

Sheff, Eileen T. (1979)
Professor of Counseling
B.S., Ohio State University
M.S., California State University, Long Beach

Sheldon, Charles C. (1988)
Associate Professor of English
B.A., University of California, Santa Barbara
M.Litt., University of Edinburgh, Scotland

Shepherd, Henry B. (1970)
Professor of Physical Education
B.A., California State University, Northridge
M.S., California State Polytechnic University, Pomona

Sherman, Arthur A. (1984)
Professor of Computer Science and Information Technology
Department Chairperson, Computer Science
B.A., University of California, Los Angeles

Siever, Patricia G. (1989)
Professor of History
B.A., University of California, Los Angeles
M.A., University of California, Los Angeles
A.B.S., University of California, Los Angeles

Skidmore, Richard D. (1975)
Professor of Business
B.S., M.S., California Polytechnic State University, San Luis Obispo

Small, Laurence (1974)
Professor of Mathematics
B.A., University of California, Los Angeles
M.S., California State University, Northridge

Smetzer, Ronald D. (1981)
Professor of Industrial Technology
District Academic Senate/Vice President
A.A., A.S., Los Angeles Pierce College
B.A., University of State of New York
CMfgE (Certified Manufacturing Engineer), Society of Manufacturing Engineers

Smith, Richard A. (1986)
Professor of Psychology
B.A., Loyola University
M.A., California State University, Los Angeles

Snider, Kathleen E. (1989)
Associate Professor of Nursing
R.N., Saint Vincent's College of Nursing
B.S., Mount Saint Mary's College
M.S., California State University, Los Angeles

Snooks, A. Nancy (1971)
Professor of Art
B.A., Immaculate Heart College
M.A., California State University, Los Angeles
M.F.A., University of Southern California

Soccoccio, Joseph M. (1977)
Professor of Photography
Department Chairperson, Media Arts
A.A., Los Angeles Valley College
B.F.A., Art Center College of Design

Solomon, Marcia N. (1976)
Professor of Nursing
B.S.N., Fairleigh-Dickinson University
M.Ed., Johns Hopkins University
Ed.D., Nova Southeastern University
Diploma, Sinai School of Nursing, Baltimore

South, Richard W. (1976)
Professor of Horticulture
Department Chairperson, Agriculture and Natural Resources
B.S., Southern Illinois University
M.S., California Polytechnic State University, San Luis Obispo

Sparks, Donald M. (1989)
Professor of Physics
B.S., Humboldt State University
M.S., M.A., California State University, Northridge

Stanley, Kenneth (1966)
Professor of Physical Education
B.S., University of Southern California

Stein, Philip L. (1965)
Professor of Anthropology
Dean, Academic Affairs
B.A., M.A., University of California, Los Angeles

Sutton, Daryl Lynn (1979)
Professor of Nursing
B.S., University of California, Los Angeles
M.S.N., University of California, San Francisco
Ed.D., Nova Southeastern University

Taylor, Rowan S. (1964)
Professor of Music
A.B., M.A., Brigham Young University

Thomas, Carmelita (1995)
Acting Vice President, Academic Affairs
B.A., M.A., Ed.D., University of California, Los Angeles

Thomas, Louise B. (1975)
Professor of Nursing
B.S., Washington State College
M.S., University of Colorado

Thomsen, Mary Joan M. (1964)
Professor of Psychology
B.A., M.A., University of California, Los Angeles

Thomsen, Terry (1966)
Professor of Business Administration
B.S., Bradley University
M.B.A., University of California, Los Angeles

Thouin, Laurence G. Jr. (1982)
Professor of Biology
B.A., Occidental College
M.S., Ph.D., University of Southern California

Tishler, Roger (1984)
Professor of Mathematics
B.A., Boston University
M.S., Tulane University

Trinchero, Bart L. (1968)
Professor of Industrial Technology
B.A., M.A., California State University, Los Angeles

Waldron, Jill R. (1971)
Professor of English
B.A., Illinois Wesleyan University
M.A., University of Illinois

Warren, James A. II (1970)
Professor of Music
B.A., University of California, Los Angeles
M.M., University of Southern California

Wechsler, Ronald (1978)
Professor of Animal Science
A.S., Los Angeles Pierce College
Class A Vocational Credential, University of California, Los Angeles

Weiser, Marian S. (1963)
Professor of Physical Education
B.S., University of Wyoming
M.A., Mills College

Weiss, Bernd (1985)
Professor of Psychology
B.S., University of California, Berkeley
M.S., California State University, San Francisco
M.A., University of California, Los Angeles
Ph.D., University of California, Los Angeles
Dr. Humanities (Hon.), Ken Studies Institute
Certificate Post Doctoral Scholar, University of California, Los Angeles

Wells, Raymond A. (1985)
Professor of Biology
B.A., M.S., California State University, Northridge
Ph.D., University of Southern California

Whalen, Paul L. (1985)
Dean, Academic Affairs
A.A., East Los Angeles College
B.A., California State University, Los Angeles
B.S., M.S., North Texas State University

White, Elizabeth G. (1982)
Associate Professor of Veterinary Technology
A.S., Los Angeles Pierce College
A.H.T., State of California

Williams, Sheila M. (1990)
Associate Professor of History
Department Chair of History
B.A., M.A., California State University, Northridge

Wittman, Darlene K. (1979)
Professor of American Sign Language/ Interpreter Education
B.A., M.A., California State University, Northridge

Yamada, Katsuya (1989)
Professor of Physics
B.S., Tokyo Denki Daigaku, Tokyo
M.S., Ph.D., University of Tennessee

Yoder, Kathie A. (1988)
Professor of Mathematics
B.A., Mount St. Mary's College
M.A., University of California, Santa Barbara
M.S., California State University, Northridge

Yoshiwara, Bruce W. (1989)
Professor of Mathematics
B.A., M.A., Ph.D., University of California, Los Angeles

Yoshiwara, Katherine (1980)
Professor of Mathematics
B.S., Michigan State University Los Angeles
M.A., University of California, Los Angeles

Zappala, Robert R. (1976)
Professor of Astronomy
B.S., Case Institute of Technology
M.S., University of Chicago
Ph.D., University of California, Santa Cruz

Zitzelberger, John F. (1987)
Professor of Electronics
A.S., Don Bosco Technical Institute
B.S., California State Polytechnic University, Pomona
M.S., California State University, Los Angeles

EMERITI

Adams, Andrew A.; 1967-1991;
Professor of Psychology

Adelson, Ben H.; 1965-1981;
Professor of Journalism

Alberti, Leo; 1956-1980;
Professor of Chemistry

Alvarez, E.C.; 1955-1983;
Professor of Computer Science

Anderson, Arthur J.; 1955-1980;
Professor of Business Administration

Anderson, Donald; 1962-1995;
Professor of Philosophy

Anderson, Ellen S.; 1965-1993;
Professor of Business

Anderson, Roger; 1994-1995;
Professor of Mathematics

Andrino, Ruben D.; 1966-1993;
Professor ofModern Languages

Angier, Edwin; 1947-1955;
President of the College

Ater, Leroy Earl, Jr.; 1966-1989;
Professor of English

Baker, Robert S.; 1985-1995;
Professor of Theater Arts

Ball, Odis C.; 1975-1995;
Professor of Theater Professor of Physical Education;

Barden, Jean Elizabeth; 1951-1975;
Professor of Physical Education; Department Chairperson, Physical Education /Women

Barlow, John D.; 1949-1984;
Professor of Animal Science

Barragar, Roberta Thomas; 1966-1995;
Professor of Art

Baugh, Frank A.; 1961-1988;
Professor of Animal Science; Assistant Dean, Academic Affairs

Baumgartner, Walter; 1966-1978;
Financial Aids Coordinator

Bayer, Diana E.; 1967-1984;Professor of Special Reading/English

Becker, Victor M.; 1959-1978;
Professor of Speech/Theater Arts; Department Chairperson, Speech/Theater Arts

Billings, Leona R.; 1971-1982;
Associate Professor of Philosophy/Sociology

Bird, Billy G.; 1968-1995;
Professor of Floral Design

Bishop, Raymond Thomas; 1957-1982;
Professor of Physical Education

Boggess, W. Lindsay; 1947-1982;
Professor of Animal Science

Boyd, Barbara J.; 1966-1975;
Assistant Professor of Physical Education

Boyd, John A.; 1966-1992;
Associate Professor of Physical Education

Bradley, Robert R.; 1969-1995;
Professor of Business Administration

Bravo, Edward; 1970-1991;
Professor of Physical Education

Briggs, Margaret; 1970-1981;
Lecturer in Chemistry

Bruce, Robert Nigel; 1961-1983;
Professor of English

Buquoi, Tyrus W.; 1966-1980;
Professor of Mathematics

Cameron, Catherine M.; 1973-1994;
Professor of Nursing; Acting Dean, Administration

Carico, Charles C.; 1963-1983;
Professor of Mathematics

Carrillo, A. Alexander; 1968-1989;
Professor of Art

Castellano, Rita; 1968-1995;
Professor of Anthropology

Cavenaugh, Jane T.; 1970-1982;
Professor of Psychology

Chambers, Ada E.; 1957-1974;
Professor of Philosophy

Chambers, James V.; 1968-1983;
Professor of English

Chambers, Robert D.; 1957-1989;
Professor of Physical Education

Chapman, Norman C.; 1957-1968; 1977-1982;
Professor of Music; Dean of Instruction

Charland, Gustave M.; 1958-1972;
Professor of Foreign Languages

Chase, Robert; 1971-1985;
Dean of Academic Affairs

Chookolingo, Frank C.; 1959-1984;
Professor of Political Science

Clark, John Paul; 1955-1978;
Lecturer in Music

Clark, Marjory Q.; 1967-1983;
Professor of Business

Cliff, John M.; 1966-1989;
Professor of Political Science

Cobb, Charles M.; 1970-1983;
Professor of English

Cohen, Sylvia L.; 1965-1995;
Professor of Psychology

Corbell, John W.; 1965-1992;
Professor of Art

Covey, W. Dan; 1980-1995;
Professor of Chemistry

Craig, Wesley V.; 1964-1976;
Associate Professor of Art

Crandall, James W.; 1965-1991;
Professor of Art

de Champlain, John S.; 1965-1984;
Professor of Foreign Languages

de Kramer, John W.; 1973-1983;
Associate Professor of Art

De Leon, Ralph; 1961-1986;
Professor of Physical Education

Delling, Leonard V.; 1974-1994;
Professor of Electronics

Denbicer, Elaine Lepeire; 1969-1990;
Professor of History

Dengler, Ben; 1968-1993;
Professor ofArchitecture

Deonik, Walter A.; 1957-1988;
Associate Professor of Engineering

DesMarteau, Philip D.; 1976-92;
Professor of Animal Science

Deutsch, Joseph; 1957-1980;
Professor of Business

Dewey, John S.; 1966-1985;
Professor of Geography

Faculty

Dixon, James; 1949-1982;
Professor of Horticulture; Coordinator of Administrative Services

Dow, Eugene; 1957-1982;
Professor of Theater Arts

Dunovan, Irving; 1956-1983;
Professor of Mathematics

Drummond, Patricia A.; 1991-1995;
Professor of Counseling

Duffy, Charles M.; 1968-1978;
Professor of Industrial Education

Elman, Sidney H.; 1961-1995;
Professor of Political Science

Enget, Robert R. 1988-1996;
Assistant Professor of Business

Enkema, Patricia; 1967-1987;
Professor of Biology

Enzer, Shirley A.; 1976-1986;
Lecturer in Physical Education

Farhood, John N.; 1986-1991;
Dean of Academic Affairs

Farr, Mary Jo; 1978-1995;
Professor of Music

Farrar, Ronald D.; 1968-1989;
Professor of Foreign Languages;Department Chairperson, Foreign Languages

Feldman, Bernard; 1967-1983;
Professor of Mathematics

Fiorello, Geraldine Y.; 1961-1990;
Professor of Physical Education

Fisk, Richard; 1985-1995;
Professor of Music

FitzGerald, Richard E.; 1970-1995;
Professor of English

Flack, Frank M.; 1955-1989;
Professor of English

Fleming, Frank Jacob; 1957-1975;
Professor of Mathematics

Folsom, Hannah B.; 1965-1972;
Associate Professor of English

Foster, Harold; 1963-1984;
Professor of Psychology

Friedrich, Linda B.; 1987-1995;
Professor of Nursing

Furman, Mildred; 1971-1986;
Professor of Health Education

Gasper, Louis; 1963-1976;
Professor of Sociology; Department Chairperson, Philosophy/ Sociology

Gazurian, Gary; 1971-1983;
Professor of Art

Gearing, Richard A.; 1970-1987;
Counselor

Gechtman, Murray; 1956-1989;
Lecturer in Mathematics; Department Chairperson, Mathematics

Gengarelli, Carmen N.; 1964-1978;
Associate Professor of Foreign Languages

Gerber, Myron; 1970-1995;
Professor of Physical Education

Gibson, Don W.; 1958-1972;
Associate Professor of Animal Science

Glaser, William; 1965-1995;
Professor of History

Goldbloom, Erwin M.; 1965-1995;
Professor of Physical Education

Goldblum, Sheldon M.; 1970-1995;
Professor of History

Goodman, Florence J.; 1958-1978;
Professor of English

Goodman, Janice; 1958-1988;
Professor of Business; Assistant Dean, Academic Affairs

Green, Gladys; 1964-1980;
Professor of English

Guffey, Mary Ellen; 1975-1994;
Professor of Office Administration

Hadel, Walter H.; 1958-1976;
Assistant Dean of Admissions and Records

Hadley, Lindy Lou; 1964-1989;
Professor of Physical Education

Haffke, Elinor D.; 1975-1993;
Associate Professor of Nursing; Professor of Counseling

Haight, Fletcher M.; 1957-1980;
Lecturer in Cooperative Education

Haines, Lee, 1948-1974;
Professor of BotanyHalby,

William A.; 1966-1987;
Professor of Industrial Education; Director, Cooperative Education

Hall, Fay K.; 1986-1989;
Professor of Nursing

Hankammer, Larry; 1968-1995;
Professor of Physical Education

Hardesty, James N.; 1965-1995;
Professor of Mathematics

Harris, Sigmund P.; 1966-1986;
Professor of Physics

Harwick, Betty C. B.; 1966-1995;
Professor of Sociology

Department Chairperson, Philosophy/Sociology

Hawkins, Jane; 1968-1988;
Lecturer in Theater Arts

Hayworth, Edward; 1963-1993;
Professor ofBusiness Administration

Heckel, Russel H.; 1969-1995;
Professor of History

Hess, Jack D.; 1956-1985;
Professor of Foreign Languages; Department Chairperson, Foreign Languages

Hinkamon, Eugene R.; 1956-1982;
Professor of Political Science

Hirschl, Milton; 1958-1994;
Professor of Art

Hoffman, Louis E.; 1947-1964;
Dean of Instruction

Holiday, Jay E.; 1956-1964;
Assistant Professor of Psychology; Department Chairman, Behavioral Science

Holloway, Mildred B.; 1969-1979;
Professor of Nursing; Department Chairperson, Nursing

Hopkins, Keith E.; 1968-1994;
Professor of Physical Education

Hopkins, Robert C.; 1971-1982;
Professor of Computer Science

Hopper, Barbara K.; 1968-1982;
Professor of Biology

Hornung, Betty; 1984-1985;
Associate Professor of Psychology

Horst, Donald P.; 1970-1988;
Professor of Theater

Horton, Gwendolyn; 1973-1983;
Professor of Nursing

Hotop, Max; 1963-1989;
Assistant Professor of Physics; Counselor

Houghton, Sadako H.; 1966-1986;
Professor of Biology

Huber, William A.; 1965-1989;
Professor of Chemistry; Department Co-Chairperson, Chemistry

Hubbell, John L.; 1965-1984;
Professor of Foreign Languages

Hurst, Edgar; 1972-1988;
Professor of Electronics

Hylton, Wallace; 1985-1989;
Professor of Art

Jampol, Sylvia; 1968-1982;
Professor of Physiology

Johnson, James C.; 1970-1994;
Professor of Industrial Technology

Johnson, Ray; 1964-1973;
Dean of Instruction

Jones, Collins E.; 1950-1976;
Professor of Physical Education

Jones, Harry; 1963-1994;
Professor of Electronics

Kalionzes, Carole S.; 1968-1995;
Professor of Library Science

Kamuk, John; 1985-1989;
Lecturer of Industrial Education

Karpel, Eli; 1958-1981;
Professor of Art

Keehn, Samuel; 1966-1986;
Professor of Foreign Languages; Department Chairperson, Foreign Languages

Kelliher, Maurice B.; 1956-1981;
Professor of Business Administration; Counselor

Kemberger, Phyllis H.; 1952-1973;
Professor of English

Kersey, Vierling, Jr.; 1947-1971;
Dean of Educational Services

Kharitonoff, Alexander G.; 1965-1986;
Professor of History

Khanigian, Amos; 1965-1983;
Professor of Economics

Kiser, Nolan W.; 1950-1976;
Professor of Horticulture

Kleeb, Jane; 1963-1986;
Professor of English

Knapp, Kenneth; 1969-1986;
Professor of Vocational Education

Kohles, Max J.; 1948-1958;1971-1982;
Lecturer in Agriculture

Kostanick, Celeste B.; 1957-1983;
Professor of Geography

Kuljian, Ernest S.; 1951-1984;
Professor of Chemistry

Lagerstrom, James 1966-1997
Professor of Speech Communication Department Chairperson, Speech Communication

Lambert, Kathryn; 1966-1993;
Professor of Business Administration

Landaz, William; 1966-1989;
Professor of English

Lehow, Ruth; 1968-1984;
Professor of Oceanography

Lees, Richard E; 1965-1989;
Professor of Psychology

Lesenthal, Robert M.; 1963-1995;
Professor of History

Lewis, William E.; 1981-1984;
Dean, Student Services; Associate Professor of Business Administration

Livesey, Jack; 1983-1995;
Associate Professor of Computer Science and Information Technology

Lord, Marjorie B.; 1951-1970;
Dean of Students

Love, Don; 1976-1995;
Vice President, Administration

Loucks, Jean; 1971-1990;
Vice President, Academic Affairs

Lukz, Roy; 1964-1995;
Professor of Mathematics

Lynch, Neil; 1947-1970;
Counselor

Maas, Evan; 1951-1975;
Dean of Student Personnel

MacMaster, Joan H.; 1969-1995;
Professor of History; Department Chairperson, History/Humanities

Madden, William R.; 1959-1983;
Professor of Library Services

Majer, Lincoln; 1972-1975;
Lecturer in Vocational Education

Martelli, Richard S.; 1975-1984;
Professor of Industrial Education

Madson, Derald L.; 1969-1995;
Professor of Biology

Martin, Marie; 1966-1970;
President of the College

Marton, Arnold; 1966-1985;
Professor of Speech

Mason, Joyce; 1967-1990;
Professor of Business
Matchett, Bruce; 1962-1983;
Professor of Speech & Theater Arts
McCarty, Marcella A.; 1961-1981;
Professor of Health Services
McClatchey, William D.; 1986-1989;
Professor of Anthropology
McCrackin, Russell; 1963-1983;
Professor of Physics
McCurdy, Richard M.; 1966-1985;
Professor of Chemistry
McCutcheon, Thomas; 1983-1994;
Associate Professor of Mathematics
McWilliams, Marian; 1958-1995;
Professor of Physical Education
Mead, Earl; 1966-1987;
Professor of Sociology; Department Chairperson, Philosophy/Sociology
Means, Daniel G.; 1989-1991;
Professor of Educational Guidance; President of the College
Mehlman, Mary R.; 1964-1995;
Professor of Mathematics
Meniere, Mary J.; 1965-1995;
Professor of English
Moore, Anna; 1957-1989;
Lecturer in Physical Education
Morosi, J. William; 1964-1980;
Dean of Administrative Services
Mosier, Chester P.; 1962-1983;
Professor of Vocational Education
Muir, John K.; 1964-1989;
Lecturer in Physical Education
Munsey, Robert E., Jr.; 1965-1995;
Professor of Industrial Technology
Nardin, Barbara; 1976-1988;
Associate Professor of Geology
Nicklin, John R.; 1970-1973;
Acting President of the College
Niles, Charles; 1964-1974;
Associate Professor of History
Norman, Guinevere Guy; 1965-1986;
Professor of Sociology
Oberdot, Frederick P.; 1992-1995;
Professor of English Resource Development Officer
O'Connor, Robert; 1965-1994;
Professor of Health Education
Odegard, Patricia; 1979-1989;
Professor of Nursing
Oliver, Lois C.; 1964-1978;
Professor of Business; Evening Department Chairperson, Office Administration
Orr, Walter H.; 1947-1969;
Professor of Industrial Arts; Department Chairperson, Technical/Industrial
Pacl, Rudolph S.; 1957-1976;
Associate Professor of Chemistry
Parr, Irene S.; 1974-1995;
Professor of Counseling
Paullada, Stephen; 1950-1975;
Professor of Foreign Languages
Paulman, Jack S.; 1967-1977;
Professor of Computer Science
Pence, Robert L.; 1969-1995;
Professor of Anthropology
Pendleton, James; 1970-1989;
Professor of Physical Education
Perry, Gerald E.; 1964-1995;
Professor of Physical EducationDepartment Co-Chairperson, PhysicalEducation-Men
Peterson, Philip F.; 1975-1994;
Professor of Mathematics
Pill, Beatrice L.; 1955-1982;
Professor of Chemistry
Popkin, Himan A.; 1970-1982;
Professor of Industrial Education
Powell, Mark L.; 1967-1995;
Professor of Geography Department Chairperson, Earth Science/Physics
Pruffer, Estes E.; 1968-1982;
Professor of Business Administration
Rabey, Joseph; 1968-1989;
Professor of English
Raskin, Jerome E.; 1953-1988;
Professor of Physics
Ravetch, Herbert; 1958-1970;1978-1985;
President of the College; Associate Professor of English
Raymund, Joan M.; 1970-1986;
Lecturer in English
Reid, Marion; 1978-1986;
Associate Professor of Industrial Education
Reidy, James B. Jr.; 1976-1989;
Professor of Computer Science; Department Chairperson, Computer Science and Information Technology
Renzi, Joseph; 1971-1983;
Professor of Vocational Education
Richards, James R.; 1986-1991;
Professor of Psychology
Richards, Malcom G.; 1964-1980;
Professor of Vocational Education
Rogers, Ruby R.; 1970-1980;
Associate Professor of Nursing
Rosemark, Erika; 1974-1989;
Assistant Professor of Early Childhood Education Director, Campus Children's Center
Rosen, William J.; 1976-1988;
Assistant Professor of Mathematics
Rosenberg, Isadore; 1965-1990;
Professor of Special Reading/Psychology
Rosenthal, Marilyn L.; 1987-1989;
Professor of Nursing
Rosenzweig, Aaron B.; 1961-1980;
Professor of Music
Ross, D. Lee; 1971-1986;
Dean, Academic Affairs
Rothe, Morris; 1957-1978;
Professor of Mathematics
Russell, Howard J.; 1962-1985;
Professor of Speech
Sanden, Bertyl J.; 1951-1983;
Professor of Animal Science
Santillanes, Vinona; 1974-1995;
Associate Professor of Special Education
Scheibel, Barbara G.; 1976-1989;
Professor of Special Reading/English
Scheibel, Robert W.; 1969-1989;
Professor of Journalism
Schneider, David; 1970-1984;
Professor of Sociology
Schneiderman, Beth; 1971-1991;
Professor of English
Schruben, Francis W.; 1958-1989;
Professor of History
Schulman, Benson R.; 1966-1989;
Professor of English
Schulman, Florence W.; 1968-1987;
Professor of Health, Physical Education, Leisure Management
Schulman, Sandra; 1972-1989;
Director, Study Skills Center; Professor of Special Reading/English
Shaver, James R.; 1987-1995;
Professor of Sociology
Shaw, William L.; 1958-1995;
Professor of Electronics
Sheldon, M. Stephen; 1975-1983;
Coordinator, Institutional Research
Shocket, Sol; 1959-1992;
Professor of Economics
Siemens, David E., Jr.; 1966-1986;
Professor of Philosophy
Silver, Constance R.; 1969-1988;
Counselor
Silverstein, Paul; 1962-1991;
Professor of Psychology
Sirakides, Leo N.; 1973-1995;
Professor of Business
Siskin, Burton E; 1986-1995;
Professor of Anthropology
Skowron, Alfred; 1977-1994;
Professor of Modern Languages
Slattery, Eugene R.; 1950-1993;
Professor of Mathematics
Smiljkovich, Ostrad; 1965-1977;
Assistant Professor of Foreign Languages
Smith, Donald A.; 1982-1992;
Professor of Business Administration
Smith, Thomas; 1964-1987;
Professor of Library Services
Smith, Walter Henry; 1956-1995;
Professor of Art
Sneeberg, Agnes; 1962-1986;
Professor of Business
Sutherland, Miriam M.; 1976-1989;
Professor of Nursing
Thompson, William L.; 1962-1991;
Professor of History
Tomich, John W.; 1965-1995;
Professor of Computer Science and Information Technology
Topik, Fred S.; 1959-1977;
Professor of Foreign Languages
Toyoshima, Joe; 1964-1989;
Lecturer in History
Treadwell, Terence J.; 1986-1992;
Associate Professor of Psychology
Turney, Kay E.; 1965-1995;
Professor of Physical Education Department Chairperson, Physical Education/Women
Van Auker, Alfred J.; 1961-1986;
Professor of Art
Van Vlaenderen, Bernard; 1976-1994;
Professor of Mathematics
Van Noy, A. Henry; 1964-1993;
Professor of Business Administration
Van Voorhis, James C.; 1964-1989;
Professor of Architecture
Vernon, James Y.; 1971-1986;
Professor of Meteorology
Vree-Brown, Marion E; 1958-1985;
Professor of Music
Walker, John Michael; 1973-1989;
Lecturer of Horticulture
Ward, Benjamin B.; 1947-1972;
Professor of Horticulture
Whitman, Orene; 1972-1989;
Professor of Nursing
Wilcox, Robert G.; 1965-1983;
Professor of Sociology
Wilkinson, Jean; 1964-1984;
Associate Professor of English
Williams, Charles R.; 1974-1995;
Assistant Professor of Physical Education
Williams, Robert L.; 1969-1980;
Associate Professor of History
Wilson, Charles C.; 1961-1984;
Professor of Journalism
Wilson, Gussie Edwards; 1964-1975;
Professor of Business
Wooten, William; 1958-1972;
Associate Professor of Mathematics
Woods, Dorris S.; 1989-1995;
Associate Professor of Nursing
Wynne, John; 1957-1978;
Professor of Philosophy
Xanthos, Paul J.; 1965-1989;
Professor of Physical Education
Zeitlin, Herbert; 1980-1989;
Counselor; Professor of Education

GLOSSARY OF TERMS

Academic Probation - After attempting 12 units, a student whose cumulative grade point average (beginning Fall 1981) falls below 2.00 is placed on academic probation. A student whose cumulative grade point average falls below 2.00 for three consecutive semesters is subject to dismissal from the College.

Academic Renewal - Removal of substandard grades from a student's academic record for purposes of computing the grade point average; special conditions must be met.

Add Permit - A card issued by an instructor upon presentation of a valid Registration/Fee Receipt which permits the student to add the class if the instructor determines that there is room. Enrollment in the class is official only if the Add Permit is processed by Admissions & Records before the published deadline.

Admissions and Records - The office and staff that admits a student and certifies his or her record of college work; also provides legal statistical data for the College.

Administration - Officials of the College who direct and supervise the activities of the institution.

Application for Admission - A form provided by the College on which the student enters identifying data and requests admittance to a specific semester or session. A student may not register and enroll in classes until the application has been accepted and a Permit to Register issued.

Assessment Tests - Tests given prior to admission which are used to determine the student's assignment to the most appropriate class level.

A.S.O. - Organization to which all enrolled students are eligible to join called the Associated Student Organization.

Associate Degree (A.A. or A.S.) - A degree (Associate in Arts or Associate in Science) granted by a community college which recognizes a student's satisfactory completion of an organized program of study consisting of 60 to 64 semester units.

Bachelor's Degree (B.A., A.B., B.S.) - A degree granted by a four-year college or university which recognizes a student's satisfactory completion of an organized program of study consisting of 120 to 130 semester units.

Certificate of Completion - A certificate granted by a community college upon satisfactory completion of a formal program of vocational study of 16 to 45 units.

Community College - A two-year college offering a wide range of programs of study, many determined by local community need.

Concurrent Enrollment - Enrollment in two or more classes during the same semester. Also, enrollment of a student attending a K-12 school and a community college at the same time.

Continuing Student - A student registering for classes who attended the College during one of the previous two semesters. A student registering for the fall semester is a continuing student if he or she attended the College during the previous spring or fall semesters; attendance during the summer session is not included in this determination.

Corequisite - A requirement that must be satisfied at the same time a particular course is taken; usually a corequisite is concurrent enrollment in another course.

Counseling - Guidance provided by professional counselors on collegiate, vocational, social, and personal matters.

Course - A particular portion of a subject selected for study. A Course is identified by a Subject Title and Course Number; for example: Accounting 1.

Course Title - A phrase descriptive of the course content; for example the course title of Accounting 1 is "Introductory Accounting I."

Credit by Examination - Course or unit credit granted for demonstrated proficiency through testing.

Credit/No Credit - A form of grading whereby a student receives a grade of CR or NCR instead of an A, B, C, D, or F. A CR is assigned for class work equivalent to a grade of C or above.

Dismissal - A student on academic or progress probation for three consecutive semesters may be dismissed from the College. Once dismissed the student may not attend any college within the Los Angeles Community College District for a period of one year and must petition for readmittance at the end of that period of time.

Educational Program - A planned sequence of credit courses leading to a defined educational objective such as a Certificate of Completion or Associate Degree.

Electives - Courses which a student may choose without the restriction of a particular major program-curriculum.

Enrollment - That part of the registration process during which students select classes by ticket number to reserve a seat in a selected class and be placed on the class roster. A student may also enroll in a class by processing an Add Permit obtained from the instructor of the class.

Full-time Student - A student may be verified as a full-time student if he/she is enrolled and active in 12 or more units, during the Fall or Spring semester.

General Education Requirements - (also called Breadth Requirements). A group of courses selected from several disciplines which are required for graduation.

Grade Points - The numerical value of a college letter grade: A-4, B-3, C-2, D-1, F-0.

Grade Point Average - A measure of academic achievement used in decisions on probation, graduation, and transfer. The GPA is determined by dividing the total grade points earned by the number of attempted units.

Grade Points Earned - Grade points times the number of units for a class.

I - Incomplete. The administrative symbol "I" is recorded on the student's permanent record in situations in which the student has not been able to complete a course due to circumstances beyond the student's control. The student must complete the course within one year after the end of the semester or the "I" reverts to a letter grade determined by the instructor. Courses in which the student has received an Incomplete ("I") may not be repeated unless the "I" is removed and has been replaced by a letter grade. This does not apply to courses which are repeatable for additional credit.

IP - In Progress. An "IP" is recorded on the student's permanent record at the end of the first semester of a course which continues over parts or all of two semesters. The grade is recorded at the end of the semester in which the course ends.

Lower Division - Courses at the freshman and sophomore level of college.

Major - A planned series of courses and activities selected by a student for special emphasis which are designed to teach certain skills and knowledge.

Minor - The subject field of study which a student chooses for secondary emphasis.

Non-penalty Drop Period - The first four weeks of a regular semester during which a student's enrollment in a class is not recorded on the student's permanent record if the student drops by the deadline. This deadline will be different for short-term and summer session courses.

Parent Course - A course which may be offered in modules. Credit for all modules of a parent course is equivalent to credit for the parent course. Parent courses are all courses without letters in the course number field.

Permit to Register - A form listing an appointment day and time at which the student may register. The permit is issued to all new students upon acceptance to the College, and to all continuing students.

Prerequisite - A requirement that must be satisfied before enrolling in a particular course usually a previous course, or a test score.

Progress Probation - After enrolling in 12 units a student whose total units for which a W, NCR, or I has been assigned equals 50 percent or more of the units enrolled is placed on progress probation. A student whose cumulative number of units (beginning Fall 1981) for which a W, NCR, or I has been assigned equals 50 percent or more for three consecutive semesters is subject to dismissal from the College.

RD - Report Delayed. This temporary administrative symbol is recorded on the student's permanent record when a course grade has not been received from the instructor. It is changed to a letter grade when the grade report is received.

Registration - The process whereby a continuing student or a new or reentering student whose application has been accepted formally enters the College for a specific semester and receives a Registration/Fee Receipt. The student may enroll in open classes as part of the registration process.

Returning Student - A former Pierce student registering for classes who did not attend the College during the previous two semesters. A student registering for the fall semester is a returning student only if he or she did not attend the College during the previous spring or fall semesters; attendance during the summer session is not included in this determination. Returning students must file a new Admissions Application.

Schedule of Classes - A booklet used during registration giving the Subject Title, Course Number, Course Title, Units, Time, Instructor, and Location of all classes offered in a semester.

Section - A group of registered students meeting to study a particular course at a definite time. Each section has a section number listed in the Schedule of Classes before the scheduled time of class meeting.

Section Number - See "Section", above.

Semester - One-half of the academic year, usually 20 weeks.

Subject - A division into which knowledge customarily is assembled for study, such as Art, Mathematics, or Psychology.

Subject Deficiency - Lack of credit for a course or courses required for some particular objective, such as graduation or acceptance by another institution.

Transfer - Changing from one collegiate institution to another after having met the requirements for admission to the second institution.

Transferable Units - College units earned through satisfactory completion of courses which have been articulated with four-year institutions.

Transcript - An official list of all courses taken at a college or university showing the final grade received for each course.

Transfer Courses - Courses designed to match lower division courses of a four-year institution and for which credit may be transferred to that institution.

Units - The amount of college credit earned by satisfactory completion of a specific course taken for one semester. Each unit represents one hour per week of lecture or recitation, or a longer time in laboratory or other exercises not requiring outside preparation.

Units Attempted - Total number of units in the courses for which a student received a grade of A, B, C, D, or F.

Units Completed - Total number of units in the courses for which a student received a grade of A, B, C, D, or CR.

W - An administrative symbol assigned to a student's permanent record for all classes which a student has dropped or has been excluded from by the instructor after the end of the non-penalty drop date but before the last day to drop.

Withdrawal - The action a student takes in dropping all classes during any one semester and discontinuing coursework at the College.

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Los Angeles Pierce College Campus

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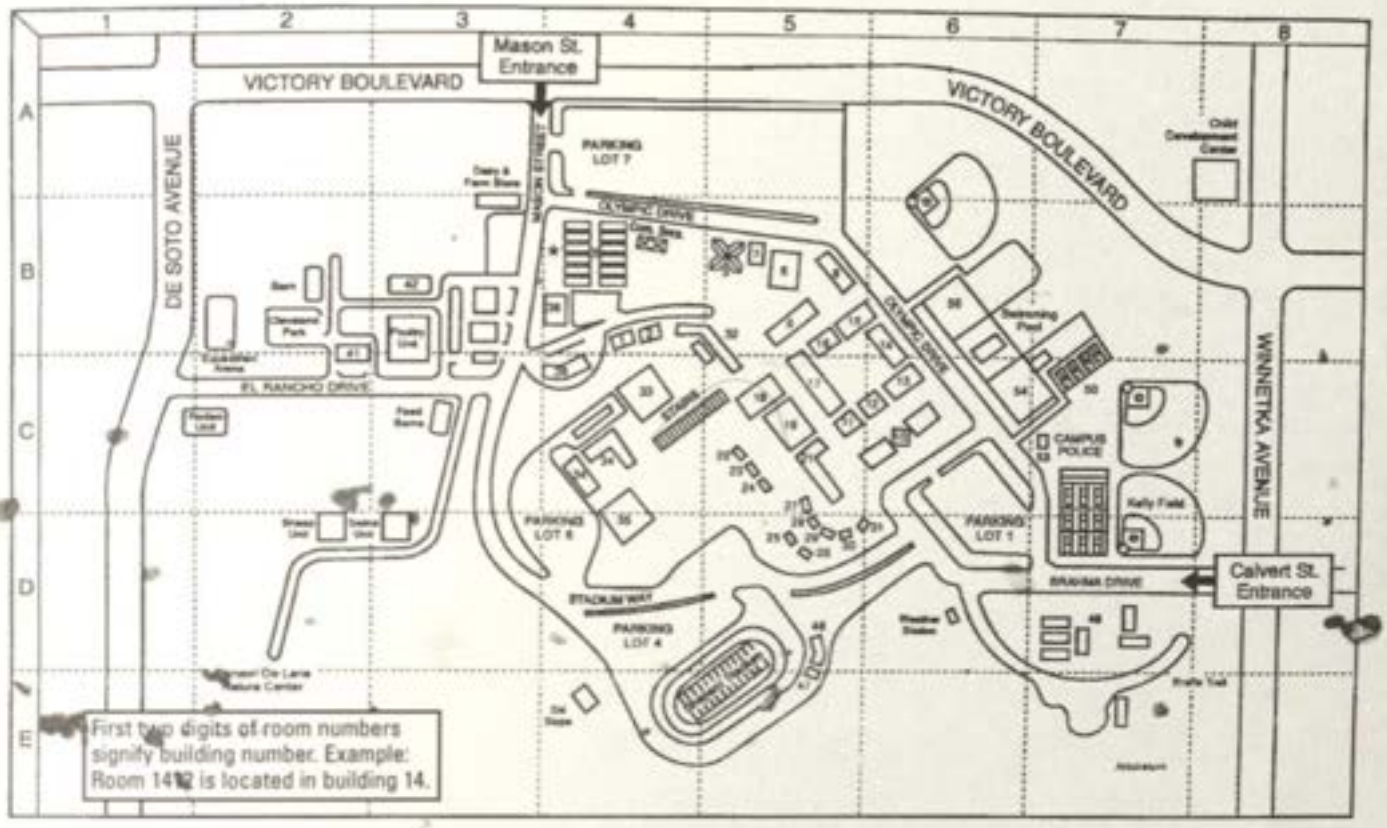

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Numerical Listing

BLDG	
1	Anthropology
2	Geography
3	Bungalows
	Community Services
	Cooperative Education
	Electronics
	EOP & S
	Extension Program
	Financial Aid
	GAIN
	Media Arts
	Nursing
	Placement - Housing, Jobs
	Speech
	Veterans Office
5	Cafeteria
6	Campus Center
	Assessment Center
	Health Center
	Student Services
7	A.S.O. Trailer
8	Chemistry
9	Physics-Engineering
10	Administration
	Academic Affairs
	Admissions & Records
	Career Center
	Counseling
	Special Services
	WoMen's Resource Center

BLDG	
13	Behavioral Science
14	Mathematics
15	Computer Science
16	Learning Center
17	Life Science
18	Library
	Media Center
19	Bookstore
	Business Office
21	Modern Language
	Life Science Learning Ctr.
22-31	Faculty Offices
32	Business Administration
33	Art
34	Music
35	Performing Arts
36	Industrial Technology
38	Metal Trades
41	Agricultural Science
42	Agricultural Engineering
46	Field House
47	Field House Annex
49	Horticulture
50	Tennis Courts (lower)
52	Tennis Courts (upper)
53	Campus Police
54	Men's Gym
56	Women's Gym