CERRITOS COLLEGE
GENERAL CATALOG
AND ANNOUNCEMENT
OF COURSES
ACADEMIC YEAR 2000-2001

CERRITOS COLLEGE
11110 ALONDRA BOULEVARD,
NORWALK, CALIFORNIA 90650
(562) 860-2451
http://www.cerritos.edu

CERRITOS COLLEGE
A PUBLIC COMMUNITY COLLEGE
ESTABLISHED 1955

Serving the residents of Artesia, Bellflower, Cerritos, Downey,
Hawaiian Gardens, Lakewood, La Mirada and surrounding areas.

ACCREDITED BY:
Accrediting Commission for Community and Junior Colleges of the
Western Association of Schools and Colleges
Mendocino Avenue, Santa Rosa, CA 95403
(707) 569-9177

APPROVED BY:
California Community College Board of Governors
Immigration and Naturalization Service of the
U.S. Department of Justice
State Department of Education for Veterans Benefits
United States Department of Education

A MEMBER OF:
Academic Senate for California Community Colleges
Association of Community College Trustees
California Community College Trustees
California Association of Community Colleges
Cerritos Area Trustees and Administrators Association
College Association for Public Events and Services
School Employers Association
Southern California Consortium for Community College Television
Western Alliance of Arts Administrators
It is the policy of the Cerritos Community College District that, unless specifically exempted by statute, every course, course section or class, the attendance of which is to be reported for state aid, wherever offered and maintained by the district, shall be fully open to enrollment and participation by any person who has been admitted to the college and who meets such prerequisites as may be established pursuant to Title 5 of the California Administrative Code, commencing with Section 51006.

All announcements herein are subject to revision. Changes may be made subsequent to the date of publication.
2000-2001 ACADEMIC CALENDAR*

FALL SEMESTER 2000
Touchtone Registration......................July 13-31, 2000
Late Registration.........................August 14-31, 2000
Instruction Begins.........................August 14, 2000
Final Examinations.......................December 8-14, 2000
Fall Semester Ends.......................December 14, 2000

SPRING SEMESTER 2001
Touchtone Registration..............November 30-January 31, 2001
Late Registration.........................January 8-31, 2001
Instruction Begins.........................January 8, 2001
Final Examinations.......................May 11-17, 2001
Spring Semester Ends...................May 17, 2001
Commencement............................May 12, 2001

HOLIDAYS (THE COLLEGE WILL BE CLOSED)
Independence Day.........................July 4, 2000
Labor Day.................................September 2-4, 2000
Veterans Day Observance...........November 10, 2000
Thanksgiving Holiday...................November 23-25, 2000
Christmas Eve.............................December 22, 2000
Christmas Day............................December 25, 2000
New Year's Eve...........................December 29, 2000
New Year's Day............................January 1, 2001
Dr. Martin Luther King's Birthday Observance....January 15, 2001
Lincoln's Birthday Observance........February 16, 2001
Washington's Birthday Observance........February 19, 2001
Good Friday..............................April 13, 2001
Memorial Day.............................May 28, 2001

RECESS
Semester Break..........................December 15, 2000-January 5, 2001
Spring Recess..............................April 9-14, 2001

*This calendar is subject to change. The Schedule of Classes contains specific dates, times, procedures, and appointment information.
## WHOM TO CONTACT
Telephone: (562) 860-2451

### GENERAL OFFICES

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### AREAS OF INTEREST

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BOARD OF TRUSTEES

President ........................................... Dr. Ted Edmiston
Vice President ..................................... Mrs. Cheryl Epple
Secretary ............................................. Mr. Bob Verderber
Member .............................................. Mr. Bob Arthur
Member .............................................. Ms. Dorothy Carfrae
Member .............................................. Mrs. Mary Loya
Member ................................................ Mr. John Moore
Student Member ............................... Mr. Constantin Rosenbauer

ADMINISTRATION

Interim President/Superintendent .......... Dr. Morgan Lynn
Interim Vice President of Academic Affairs/Provost ................................. Ms. Donna Miller
Vice President of Business Services/Assistant Superintendent ............. Mr. Peter Hardash
Vice President of Student Services/Assistant Superintendent ............ Dr. Erlinda Martinez
Executive Dean of Community, Industry and Technology Education ............... Mr. John Grindel
Executive Dean of Information Technology and Development ..................... Mr. M. L. Bettino
Dean of Academic Affairs ........................ Dr. Adolph Johnson, Jr.
Dean of the Library and Learning Resource Center .................................. Mr. John J. McGinnis
Executive Director of School and Community Relations .......................... Dr. Steven Helfgot
Executive Director of Foundation ............... Mr. Steven Richardson
Administrative Dean of Technology Training/Distance Education ....................... Mr. Mike Sebak
Dean of Student Activities ..................... Mr. Phillip Houseman
Instructional Dean/Business Education ...................... Mr. William C. Christie
Instructional Dean/Health Occupations ................................. Ms. Jenine Nolan
Instructional Dean/Humanities and Social Sciences ............................ Dr. Darryl Beale
Instructional Dean/Fine Arts/Communications .... Dr. Barry Russell
Interim Instructional Dean/Liberal Arts ..................................... Ms. Francine DeFrance
Instructional Dean/HPER/Athletics ........................................ Dr. Pamela Walker
Instructional Dean/Science, Engineering and Mathematics ....................... Mr. Norman Fujimoto
Instructional Dean/Technology ............................... Dr. Randy Peebles

COMMUNITY EDUCATION

Director of Community Education .................. Ms. Ginger Neel
Director of Adult Education/Diversity Programs ................................. Ms. Graciela Vasquez

COMPUTER SERVICES

Director of Computer Services ..................... Ms. Lee Krichmar

FACILITIES

Director of Operations ............................ Mr. Wayne Nunnery
Director of Physical Plant ......................... Mr. Mike Sebak

FISCAL SERVICES

Director of Fiscal Services ........................... Mrs. Lola Rizkallah
Director of Purchasing .............................. Ms. Donna Jones
Accounting Manager ............................... Ms. Karen Rindfleisch
Budget Manager .................................... Ms. JoAnne Sims
Payroll Manager ..................................... Ms. Sandra Holmes

PERSONNEL SERVICES

Interim Director of Personnel Services ........ Ms. Cynthia Convey
Assistant Director of Personnel Services ................ Mr. Dan O’Rourke

STUDENT SERVICES

Administrative Dean of Admissions and Records ........................... Mr. Peter Fong
Administrative Dean of Counseling ..................... Mrs. Carol Patrick
Assistant Dean Career Services .......................... Mr. Robert Chester
Director of Disabled Student Programs ......................... Ms. Lilia Rodriguez
Director of Communications .......................... Mrs. Marvin Engquist
Director of Disabled Student Programs ......................... Dr. Robert Hughlett
Director of Student Affairs .......................... Mr. Phil Rodriguez
Director of Marketing/Public Relations ........... Mr. Chi-Chung Keung
Coordinator of Student Health and Wellness ................... Mr. Charles Gale
Coordinator of International Students Program .......................... Ms. Danita Kurtz
Coordinator of Judicial Affairs .......................... Mr. Pat Callahan
Coordinator of Student Activities .......................... Mr. Dean Ackland
CalWORKs Coordinator ................................ Ms. Irene Herrera
Web Administrator .................................... Mr. Taylor Bowman

FACULTY SENATE

Faculty Senate President .......................... Mr. Robert Chester

CALIFORNIA SCHOOL EMPLOYEES ASSOCIATION

CSEA President ............................... Mr. Ed White
Cerritos College General Catalog

History

Cerritos College was established on June 10, 1955, when citizens of the Bellflower, Norwalk, Artesia, Carmenita, and Bloomfield elementary districts voted four to one in favor of forming a junior college district. On September 27, 1955, a ballot measure calling for a six-million-dollar bond issue with which to build the junior college passed, again by a four-to-one margin. Title to the proposed college site was acquired on December 5, 1956, and the college Board turned its attention to securing favorable zoning so that construction could begin.

Credit for the birth of Cerritos College lies chiefly with Dr. Ralph Burnight, first president of the institution. Superintendent of the Excelsior Union High School District for 27 years before the College was born, Burnight had seen the need for the extension of educational opportunities offered at his high school and fought the State Board of Education for the establishment of a college in 1953, when the State Board indicated it was doubtful that the District could attract a minimum enrollment of 400 students.

Dr. Burnight, however, was convinced that the area would continue to grow, and three years later the Board of Trustees-Leslie Nottingham, Walter Van Alstine, Dale Donnell, Al Sommer, and Arthur Kulzer-authorized the College to offer instruction. On September 11, 1956, in classrooms rented from the Excelsior High School District, 197 students enrolled in classes and made the college a reality. That first semester, ten certified teachers offered 15 subjects, with Dr. Burnight at the helm. Beginning with the 1957-58 school year, the College operated out of Artesia High School, awaiting the completion of the new campus.

By the end of 1959, eight buildings (Field House, 3-25-58; Business Education, Lecture Hall, Science, Shower and Locker, 10-6-59; Liberal Arts, Technology, Electronics, 9-15-59) had been completed on campus, and funds were made available to provide the remaining facilities to accommodate a student body of 3,500 students.

By 1961 the campus was beginning to look like a college with the completion of four more buildings (Library and Gymnasium, 7-1-61; Metal Trades Shop Building, 7-17-61; Student Center, 3-8-60) and an enrollment of 4,000 students. The campus included 95 acres in 1964, and its 15 permanent buildings brought the value of the College to 16 million dollars; it now served a District with an assessed valuation of $543,000,000. The 18 buildings were complemented by a weight lifting facility in 1971 and a Student Activities/Bookstore complex in 1974.
With the campus thus complete for the time being, the administration and Board of Trustees turned to building the excellence of the academic program, which had a strong foundation. Innovation in satellite courses, televised instruction, open entry/exit classes, and the move into audio-visual instruction marked the coming decade.

In 1972 the student population reached 17,000. The next year, 18,000 students attended classes, and the assessed valuation of the District had grown to more than $800,000,000.

The early 1970's were marked by spiraling inflation and tighter money; yet the College was able to finance a new, modern Bookstore (3-19-74), the Health Sciences Building (2-1-78), and the Auto Technology Building (9-1-78) to cope with the growing demands of students.

The Bicentennial Year was a special time for Cerritos, as well as for millions of other Americans. Twenty years earlier, the 135-acre campus had been in its infancy, and educational visionaries had predicted that by 1975 more than 15,000 students would be attending classes in the many buildings depicted only on the architect's drawing boards. That modest forecast failed to foresee an even greater need in the community by 1975, when nearly 23,000 students enrolled in courses. In 1970-71 the predicted 15,000 had already been exceeded, and growing pains brought expansion to the campus, which continues to grow to meet the demands of the surrounding communities.

By its twentieth anniversary, Cerritos College had educated nearly 250,000 students since it first opened its doors at Excelsior High School. Course offerings had expanded, a satellite campus program had been implemented, and the faculty and staff had grown as the community needs increased. Cerritos College received its first ever Federal Title III grant in 1986. The grant was in the amount of $500,000 renewable for five years totaling $2.5 million dollars.

Over the last few years, the College has undergone five major renovations. In 1994, the Library and Learning Resource Center (LRC) underwent another major renovation and expansion. The library expanded from 22,000 square feet to over 40,000 square feet. And the old card catalog was replaced with an automated on line system as a result of a major financial gift by the Associated Students of Cerritos College (ASCC). A modern teleconference center and learning assistance lab were added to the east wing of the Learning Resource Center.

The Student Center was renovated in 1995, funded by a three-way partnership between the ASCC, the College District and the State. Unchanged since its doors first opened, the Student Center was completely remodeled from the main floor to the adjacent Culinary Arts food service. The renovation also included a four-restaurant food court with both indoor and outdoor casual dining areas for students.

In fall of 1998, Cerritos College opened the doors to the “One-Stop” Student Services Center. The new center houses a full spectrum of student resources including admissions and records, academic counseling, financial aid, the Scholars’ Honors Program, veteran’s affairs, EOPS (Extended Opportunities Programs and Services) and university transfer assistance. Each department is equipped with high-speed Pentium computers, designed to provide immediate access to the College’s network. In addition, the College’s Career Services and Job Placement Centers have been moved within a short distance of the “One Stop” Student Services Center making it the central hub of all Student Services and enrollment activities.

Also in the fall of 1998, the second phase of the LRC opened, with more than 500 high-speed personal computers and 699 data ports. The dual-level computer labs provide students with access to the latest software, the Internet for students and tutorial programs. In addition, there are dedicated labs for reading, math, English and foreign languages. This renovation of the LRC was part of a $12 million investment in a technology infrastructure that also included the “wiring” of the entire campus and the placement of a networked PC on the desk of each employee. As a result, Cerritos College has distinguished itself as “the most technologically advanced community college in the state” for teaching and learning.

And in 1999, the ASCC underwrote the development of Falcon Square, formerly a cement quad situated at the heart of the campus. Falcon Square is a wonderful area for students to relax or study in front of a split face block waterfall with concrete seat caps and slate covering. As part of the renovation, a 300-seat outdoor amphitheater was built in front of the College’s music building.

Cerritos College takes pride in the quality of their outstanding faculty. In 1995, Economics Professor Dianne Keenan was selected as the “Community College Professor of the Year” by the National Carnegie Foundation for the Advancement of Teaching. And in 1999, Mathematics Professor Susan Parsons was recognized as the nation’s "Outstanding Community College Faculty Member of the Year" by the Association of Community College Trustees (ACCT).

More students transfer to Cerritos College than any other California community college, according to the Chancellor’s Office of California Community Colleges.

Cerritos College's student population is highly diverse. Across the nation, it is the fourth largest Hispanic serving community college. Furthermore, it is home to more than 300 international students representing 34 countries.

Cerritos College now serves the communities of Artesia, Bellflower, Cerritos, Downey, Hawaiian Gardens, Lakewood, La Mirada, and Norwalk with a combined population of more than 450,000 and an assessed valuation exceeding one billion dollars.
Vision

Cerritos College, as an institution of higher education, is:
Dedicated to excellence in teaching and learning;
Committed to meeting diverse student needs;
United with the community to serve our students’ education,
career, and life-long learning needs.

Mission

Cerritos College is an open access institution committed to providing high-quality, academically rigorous instruction in a comprehensive curriculum that respects the diversity represented in our student body and our region. We provide a technologically advanced educational community in which students pursue a variety of educational goals: attainment of an associate’s degree, transfer to a four-year university, vocational degree or certificate, or job skills. Achievement of these goals is strongly supported with instruction in basic skills as well as with student and instructional support services. Beyond these college credit programs and services, Cerritos College actively enriches the surrounding community through its varied community education programs.

Philosophy and Objectives

Cerritos College is a community-oriented institution that embraces diversity, innovation, and active learning. We strive for high academic and ethical standards, as well as academic freedom. We believe in the worth and dignity of our learners, regardless of age, gender, ethnicity, or disability. In educating, we consider the learner’s cognitive growth, and seek to foster emotional and physical well-being. The College prepares individuals for full participation in a complex democratic society, as citizens and leaders, for the fulfillment of personal goals and the future of the region. We believe that the purpose of education is to enlighten and enhance the quality of life.
Academic Information
Admission to the College

Admission to Cerritos College is open to any high school graduate or equivalent or persons eighteen years of age or older. Students entering any of the public community colleges of California are subject to the residence requirements as determined by the State of California. A student is eligible to attend Cerritos College whose legal residence is within the state of California. Residents of any other state or foreign country must pay non-resident tuition.

The legal residence of any unmarried student under 18 years of age is considered to be that of the parent or guardian. The student should be prepared to present proof of residence.

Cerritos College does not discriminate against any person in employment or college participation because of race, color, religion, sexual orientation, sex, handicap or age.

Further inquiries may be directed to the Office of Admissions and Records at (562) 860-2451, Ext. 2211 or the Cerritos College website at http://www3.cerritos.edu/student-services/admissions/.

APPLICATION

All students desiring admission to Cerritos College must file an application for admission in the Office of Admissions and Records providing complete and accurate information as requested.

An applicant is not at liberty to ignore previous enrollment at any post-secondary institution. Failure to list any school, college or university which applicant previously attended or any deliberate falsification of information on application or residence verification is a basis for dismissal from the College.

Applicants should submit applications and transcripts well in advance of the beginning date of the session for which they wish to be admitted.

Upon clearance of all admission papers, a student identification (I.D.) number is issued by the Office of Admissions and Records. An I.D. number is necessary before the student is eligible for enrollment, assessment battery testing, or counseling appointment.

Students on academic probation may be limited as to number of units and/or hours of enrollment. Appointments to register are issued by the Office of Admissions and Records.

TRANSCRIPTS

If an applicant has enrolled in any other post-secondary institution before applying to Cerritos College, a transcript of record showing all work undertaken is required. All transcripts submitted become the permanent property of Cerritos College.

NON-HIGH SCHOOL GRADUATE

A person eighteen years of age or older who has not received a high school diploma may be admitted to the College for the purposes of general education, a specialized vocational program, or qualification to a state college.

Any individual eighteen years of age or older who wishes to obtain a high school diploma by taking courses at Cerritos College should proceed as follows:

1. Obtain a statement of approval from the principal (or counselor) of the high school that is to issue the diploma. The statement should indicate:
   a. The subjects and number of semester credits necessary for completion of the graduation requirements.
   b. The Cerritos College courses which will satisfy the high school requirements.
2. Upon completion of the college courses, a transcript of the student’s record should be requested to be sent to the high school.

Degree applicable college courses taken to meet high school graduation requirements will be counted as part of the 60 units of credit required for the Associate in Arts Degree at Cerritos College.

ADMISSION OF HIGH SCHOOL STUDENTS (VEYSEY PROGRAM)

The Veysey program represents a cooperative venture between Cerritos College and its neighboring high schools. Under the terms of this program, juniors and seniors at least 16 years of age may take college courses to achieve three important purposes:

1. Advanced academic work: High school students can get a head-start in their college major or in completing college graduation requirements.
2. Vocational-technical career courses: Students can take courses not available in a high school or can obtain advanced work beyond the scope of a high school’s vocational program.
3. “Bridging the Gap:” Students can become familiar with college work and college procedures while still at the high school.

Upon recommendation of the high school and with parental consent, high school juniors and seniors may take classes at Cerritos College. High school students may enroll in courses and receive both high school and or college credit, but must also attend a minimum day at the high school. Enrollment in the summer session immediately prior to the junior year is also open to high school students. No enrollment fee will be charged to concurrently enrolled high school students. Interested students should contact their high school counseling office or the Cerritos College School Relations Office for more information.

Cerritos College also offers college credit courses on several local high school campuses. Contact your high school counselor to see if and when courses are being offered at your high school. Students who need accommodations due to a disability should consult with the DSP&S office at Cerritos College.

ADMISSION OF MINORS

The College may admit as a (non-Veysey eligible) part-time or full-time student in grades kindergarten through 10 (K-10) an advanced student who, in the opinion of the Dean of Academic Affairs and designated faculty and staff, may benefit from instruction to be taken.

Students applying for admittance must meet the following criteria:

1. Enroll in 12 units or fewer, and;
2. Demonstrate the ability to benefit from more advanced scholastic or vocational work than is available in the K-10 setting as determined by the Dean of Academic Affairs and designated faculty and staff, and;
3. Receive a written positive recommendation from a principal or counselor of the school of attendance;
4. Present a letter of parental consent to attend Cerritos College;
5. Be authorized to attend Cerritos College by the Public School District if the student attends public school;
6. Undertake courses of instruction of a scope and duration sufficient to satisfy the requirement of law.
7. Minor students must submit a completed Permission Letter for Special Minor Students (application only) each term or semester they wish to attend Cerritos College.
8. Veysey students and underaged minors are exempt from per unit fees.

Students who need accommodations due to a disability should make arrangements for these through their K-12 school district, in consultation with the DSP&S office at Cerritos College.
ADMISSION OF INTERNATIONAL STUDENTS

The International Student Center at Cerritos College welcomes international students from around the world. We are dedicated to providing the services that will assist international students in achieving their academic goals. International applicants should start the application process at the earliest possible date prior to the beginning of any college semester. Three months is recommended to ensure enrollment.

Documentation required:
- Application for admission (with $25 non-refundable fee)
- The following financial documentation from the financial sponsor: (International students are not usually eligible for financial assistance or employment.)
- Statement of support (notarized by a notary public or government official)
- Bank certification from financial sponsor’s bank showing sufficient funds
- Proof of English Proficiency
- TOEFL (450 or higher on the paper and pencil test or 133 or higher on the computerized test)
- Passing score on the ESL Assessment Test (for transfer students and applicants currently in the United States.)
- T-B exam report
- High school and College transcripts
- Transfer Authorization (from the previous school within the U.S.)
- Health and Accident Insurance
- All immigration documentation (I-20’s, I-94 cards, valid passport, etc.)
- The following financial documentation from the financial sponsor:
  - All immigration documentation (I-20’s, I-94 cards, valid passport, etc.)
  - Health and Accident Insurance
  - Transfer Authorization (from the previous school within the U.S.)
  - High school and College transcripts
  - T-B exam report
  - Proof of English Proficiency
  - Bank certification from financial sponsor’s bank showing sufficient funds

Costs: Approximate fees and accommodations for one year:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application fee</td>
<td>$25.00</td>
</tr>
<tr>
<td>Tuition and enrollment fee ($157.00 per unit)</td>
<td>4,710.00</td>
</tr>
<tr>
<td>Books and supplies</td>
<td>700.00</td>
</tr>
<tr>
<td>Student Health Fees</td>
<td>20.00</td>
</tr>
<tr>
<td>College student ID Fee</td>
<td>20.00</td>
</tr>
<tr>
<td>Health Insurance (mandatory)</td>
<td>540.00</td>
</tr>
<tr>
<td>Living expenses (Approx.)</td>
<td>10,000.00</td>
</tr>
<tr>
<td>Parking permit (optional if you have a vehicle)</td>
<td>40.00</td>
</tr>
</tbody>
</table>

**Approx. total for the year:** $16,055.00

Approx. tuition fees per semester based on 12 units: $1,884.00

For further information contact:
Cerritos College
The International Student Center
11110 Alondra Blvd.
Norwalk, CA 90650-6298 U.S.A.
E-mail: dkurtz@cerritos.edu
Phone: (562) 860-2451 ext. 2133 Fax: (562) 467-5086

Expenses

The cost of textbooks, supplies, and equipment will depend upon the number or kinds of courses taken. Textbooks and supplies are sold in the college bookstore. Additional fees as noted below must be paid at time of registration:

**STUDENT FEES**

1. Enrollment fees for the community college student is $11 per unit. FEES ARE SUBJECT TO CHANGE WITHOUT NOTICE DUE TO STATE LEGISLATION.

2. Students who are non-residents of California will also be subject to non-resident tuition fee of $131 per unit. International student fee is $146 per unit, PAYABLE AT TIME OF REGISTRATION. Active military personnel and their dependents are exempt for one year from this out-of-state tuition charge. Non-resident students who have been admitted to a class or classes without payment of the fee because of falsification of information submitted by or for them, shall be subject to dismissal from college. If the above fees are not paid during the same day of registration, your complete program will be dropped and you will have to re-register.

3. Student Health Fee is $10.00 per semester, $7.00 for Summer Session.

4. College Services I.D. Fee is $10.00 per semester, $4.00 for Summer Session.

5. Parking fees provide security and maintenance of parking lots. On-campus parking for automobiles is $20.00 per semester and $10.00 for Summer Session, for students. Mopeds and motorcycles may use designated areas at no charge.

**Required Instructional and Other Materials Policy**

Students may be required to purchase instructional and other materials required for a credit or noncredit 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. (Title 5 Cal. Admin. Code Sec. 59400)

Any questions with respect to the interpretation of this regulation shall be in writing and addressed to the College’s Vice President of Academic Affairs.

**REFUND POLICIES AND PROCEDURES**

It is the student’s responsibility to apply for a refund. A student is eligible for a refund after classes have been officially dropped. Classes must be dropped by the appropriate deadline for the session in order to be eligible for a refund. A student is eligible for a refund if:

- the program change is the result of action taken by the district to cancel or reschedule a class;
- the student is dropped for failure to meet a prerequisite(s) or corequisite(s); and/or,
- the student is active or reserve U.S. military personnel who withdraw due to military orders.

The above-listed eligible students may file a petition with the District requesting refund of their registration fees. A refund will not be processed if academic credit has been awarded for the class. Refunds will be mailed after your application is filed at the Payroll/fee station in the administration building. Be sure your address is correct at the time you file. To an officially withdrawn student, the following refund guidelines apply:
1. **Enrollment Fee, Non-Resident Tuition, and International Student Tuition** - Fall and Spring Semester, Summer Session and Short-Term Classes - A student will be fully refunded if classes are dropped within the drop dates published in the Schedule of Classes. There are no exceptions to the published drop dates.

2. **Student Health Fee** - A student will be fully refunded if all classes are dropped within the drop dates published in the Schedule of Classes. There are no exceptions to the published drop dates.

3. **College Services I.D. Fee and Parking Fees** - A student will be fully refunded if all classes are dropped within the drop dates published in the Schedule of Classes. If the student paid for but did not receive their Student I.D. Card or parking sticker, he/she must pick them up before applying for the refund. The Student I.D. Card and parking sticker must be surrendered at the time the student applies for the refund. There are no exceptions to this requirement.

Refunds are made pursuant to Title 5, Section 58501 or 58501.1, for program changes made during the first two weeks of instruction for a primary term-length course (18 weeks) or by the ten percent point of the length of a short-term course (15 weeks, 9 weeks, 6 weeks, etc.).

Example: 15 weeks class x 5 working days 75 x 10% 7.5. The result is rounded to allow 8 days to drop a class and be eligible for a refund.

**ONE YEAR LIMIT ON REFUNDS** - Classes must be dropped before filing for a refund. Students seeking refunds must meet the requirements listed above to be eligible. Students must have dropped the class(es) and met the appropriate deadlines before filing for a refund. If these conditions have been met, students have one year from the beginning of the semester in which fees were paid to apply for their refund. Beyond the one year limit, students will no longer be eligible.

**INSTRUCTIONAL MATERIALS FEES**

According to Title 5, Section 59404 (b), Cerritos College may require students to provide materials that are course related including, but not limited to, textbooks, tools, equipment and clothing. Such materials will be required if:

1. The instructional or materials are used in the production of a course-related project or “end product” that has continuing value to the student outside of the classroom setting; or
2. The instructional or other materials required for the class have a continuing value to the student outside of the classroom setting.

**Bad Check Regulations**

A $10.00 fee will be charged for all returned and stop payment checks. All fees are subject to change without notice in accordance with any action taken by the Board of Trustees. Under Assembly Bill 1226, any person who writes a check on or after January 1, 1984, which is dishonored for lack of funds is civilly liable, and under the law, is liable for three times the amount of the check, plus the face value of the check.

**Failure to Pay College Financial Obligations**

Failure to pay college financial obligations may result in the withholding of grades, transcripts, diplomas, or registration privileges.

a. The failure by a student to pay a proper financial obligation due to the college or district may result in the withholding of grades, transcripts, diplomas, or registration privileges or any combination thereof.

b. Prior to instituting any such hold, a written notice of a student's failure to pay a financial obligation due the college or district shall be given to the student.

c. The decision to withhold any of the above may be appealed to the president/superintendent or his/her designee.

d. The item or items being withheld shall be released when the student pays the financial obligation. (Education Code Section 72237)

**Incidental**

Students are expected to furnish all textbooks, supplies, and uniforms as needed for instruction. The materials may be purchased through the student store which is operated by the Associated Students. In laboratory courses, students are charged actual cost of items lost or broken. Fines are assessed in the library for lost or overdue books.
Matriculation

Matriculation is a process which is designed to help students in planning, choosing, and achieving educational goals. The process brings the college and a student into an agreement for the purpose of realizing the student’s educational goal through the college’s established programs, policies, and requirements. The agreement acknowledges responsibilities of both the college and the student to attain those objectives. The main purpose of matriculation is student success.

Listed below are the basic components of the matriculation partnership shared between the college and the student.

The college agrees to provide:
- An admissions application process.
- An orientation to the College’s programs and services.
- An assessment of the student’s study skills, English language proficiency, computational skills, aptitudes, goals, learning skills, career aspirations, academic performance, and need for special services.
- Counseling and advisement to develop an educational plan.
- Follow-up evaluation of each student's progress in achieving an educational goal.

The student agrees to:
- Express at least a broad educational intent upon admission.
- Declare an educational goal before or during the term after which the student completes 15 units.
- Attend class.
- Work diligently to complete course assignments.
- Demonstrate an effort to attain an educational goal.
- All new students are required to participate in the matriculation partnership activities. Students who have completed an associate degree or higher at an accredited post-secondary institution are exempt from the partnership. However, exempt students may choose to participate in any portion of the matriculation process.
- Alternate arrangements are available for students with physical, communication or learning disabilities, or who are on financial aid and are determined as EOPS eligible students. Contact the Counseling Center for details. Outlined below are guidelines and are determined as EOPS eligible students. Contact the Counseling Office, Career Services Center, and the college web site; or call (562) 860-2356 for dates and times.
- Failure to comply with matriculation regulations, declaring an educational goal and developing an educational plan may result in the termination of matriculation services to the student.

For additional information, visit the matriculation website at http://www.cerritos.edu/student-services/counseling/cg-matric.html.

ADMISSIONS
Complete and submit the Cerritos College admissions application to the Admissions and Records Office, located in the Administration Building or on the college web site. Submit high school transcripts and any previous college transcripts of work you have completed. Submit proof of residency requirements.

EXCEPTIONS: none.

ORIENTATION
After completing assessment testing, sign up for an orientation workshop at the appointment desk in the Counseling Office or make an appointment by calling (562) 860-2451, extension 2231. There are both day and evening orientation workshops.

Day workshop includes: campus information, preparation for registration, and a campus tour.

The evening workshop is designed for adults returning to school. It includes campus information and preparation for registration.

Students are encouraged to receive assessment PRIOR to attending an orientation workshop.

Orientation and Educational Planning classes are available throughout the semester.

EXCEPTIONS: Re-admit and transfer students.

ASSESSMENT
The Career Services Center offers the following services to assist students in exploring and planning their academic and vocational futures:
- Assessment Testing,
- CalWORKs,
- Career Planning,
- Student Employment-Job Placement, and
- Re-entry Program

The Career Services Center is located in the Administration Building. “ASSESSMENT” means the process of gathering information about an individual student to facilitate his or her success. At Cerritos College, assessment includes, but is not limited to, the collection of information regarding student’s study skills, English language proficiency, computational skills, high school and/or college transcript review, evidence of A.A. degree or higher from an accredited institution, learning skills, academic performance, and need for special services. In addition, career assessment is the opportunity to explore career aspirations, goals, skills, interests, aptitudes and values.

Do I Need to Take an Assessment Test?
If you plan to enroll in a math, English, ESL (English as a Second Language), or reading class or if you plan to earn an A.A. degree, it is strongly recommended that you take assessment tests prior to registration.

Please note: The exceptions listed are assessment options for clearance or placement. To meet the required reading, math, and English proficiencies necessary to qualify for the Associate in Arts Degree, check your catalog or ask a counselor.

Assessment Testing Schedule
Copies are available at the Admissions and Records Office, Counseling Office, Career Services Center, and the college web site; or call (562) 860-2451, Ext. 2356 for dates and times.

Assessment Test Exemptions
Students who already possess an A.A. degree or higher are not required to take assessment tests, but will be required to verify the degree by presenting official documents to the Admissions and Records Office at least one week prior to registration.

Individual Assessment Test Battery Exceptions for Course Placement

English
If you have completed English 100 (formerly English 1) or an equivalent three unit college-level composition course with a “C” grade or higher at an accredited college, you are exempt from the English Assessment. Please submit official proof (grade reports or transcripts) to a counselor prior to registration.

Basic Math
If you have completed Algebra 1 or higher with a “B” grade or higher at a high school or an accredited college, you are exempt from
the Basic Math Assessment. Please submit official proof (grade reports or transcripts) to a counselor prior to registration.

**Advanced Math**

Students who achieve MATH 60 (formerly MATH 30) clearance on the Basic Math Readiness Test may take one of the appropriate Advanced Math Tests to determine their math level.

Students may be placed in advanced math courses based on a “B” grade or higher in recently completed high school or college algebra courses. It is strongly recommended that these math courses have been completed within the past three years. Proof of high school or college grades is required.

**Advanced Placement Courses**

Students who participate in advanced placement courses at their high schools and earn required scores on tests can earn college credit for those courses when they come to Cerritos College. For further details, ask a counselor.

A student who scores 3, 4, or 5 on the College Board Advanced Placement Examination will be granted units toward the A.A. degree.

**Chemistry**

Please read the prerequisites and recommendations section with each Chemistry class listing. Be sure that the prerequisites are satisfied before registering for a course.

**Accommodations for English as a Second Language**

Students planning to take ESL (English as a Second Language) courses need to take the CELSA and ESL writing placement exam.

**May I Retake a Test?**

Students are allowed to retake tests using the following schedule:

- Basic Math Readiness: May be repeated one time AFTER one semester waiting period.
- Intermediate Algebra Readiness: May be repeated one time AFTER one semester waiting period.
- Advanced Math Readiness: May be repeated one time AFTER one semester waiting period.
- Calculus: May be repeated one time AFTER one semester waiting period.
- Reading: May be repeated once per semester.
- Holistic English Writing Sample: May be repeated one time AFTER one semester waiting period.
- ESL Writing and CELSA: May be repeated one time AFTER one semester waiting period.
- Assessment Battery: May be repeated one time AFTER one semester waiting period.

**Accommodation for Special Needs**

Any student with a verified disability may arrange an appointment for alternative administration of English, reading and mathematics placement tests by contacting Disabled Student Programs and Services, (562) 860-2451, Ext. 2333. Alternative administration may include extended time, large print, readers or writers.

**COUNSELING**

All new and probationary students are advised to see a counselor for course approval prior to registration. Students who are on academic or progress probation are required to complete a contract with a counselor prior to registration. Students who have not declared an educational goal and students who are enrolled in pre-collegiate basic skills courses are highly encouraged to meet with a counselor to develop an educational plan. Readmit and transfer students are also advised to see a counselor.

All students are encouraged to meet with a counselor every semester to ensure that their educational plan accurately reflects their educational goal.

**Follow-up**

Counseling and teaching faculty provide a number of follow-up services to matriculated students. These services are designed to provide information regarding the students’ academic progress. Special services are provided to students on academic and/or progress probation, students in basic skills courses, and students who are undecided about their educational goal. Referrals are made to on and off campus services when appropriate.

**What are Prerequisites, Corequisites and Recommendations?**

It is the intent of Cerritos Community College to guide students into courses in which they will have the greatest chance for academic success. Therefore, the student will find courses which have prerequisites, corequisites and/or recommendations in their descriptions. This is the case when a specific body of knowledge or skill(s) must be learned or demonstrated before the student can be expected to successfully progress to the second-level course. For example, ENGL 52 (formerly ENGL 50.2) must be taken before ENGL 100 (formerly ENGL 1). This is an example of courses that must be taken in sequence. Students are encouraged to consult the course descriptions found in the current college catalog for the identification of the prerequisites for a course.

**Following are the definitions for prerequisites, corequisites and/or recommendations for course preparation:**

1. A prerequisite is any requirement which must be satisfied before a student may register for a course. In other words, “prerequisite” means a course that a student is required to complete in order to demonstrate current readiness for enrollment in a course or educational program. The prerequisites offered at Cerritos College are listed with course titles in the “Announcement of Courses” section of the catalog and in the current Schedule of Classes.
2. “Corequisite” means a course that a student is required to take at the same time with another course. For example, if a student enrolls in PHAR 60 (formerly PHAR 40L), he/she must take PHAR 40L (formerly PHAR 4) at the same time.
3. “Recommendation” for course preparation means a condition of enrollment that a student is strongly suggested to meet before or along with enrollment in a course or educational program but is not required to do so.
4. “Credit grade” is at least a grade of “C” (satisfactory). Credit will not be granted for substandard course work (“D” or “F”).
5. “Satisfactory grade” means that, for the course in question, the student’s academic record has been annotated with the symbol A, B, C, or “CR.”

Sometimes students mistakenly take and successfully pass a particular course before taking its prerequisite. If this happens and the student later wants to take the prerequisite, he or she may be denied admission to that class.

**What is the Prerequisite Challenge Procedure for Students?**

Prerequisite may be waived by the institution for students who have presented the appropriate reasons and who have the appropriate backgrounds.

If you believe that you can meet the requirements, or that you
meet one of the conditions below, then you may challenge a prerequisite. A Prerequisite Challenge Form can be obtained upon request from the Admissions and Records Office, Counseling Center or any division office. The directions for challenging a prerequisite are explained on the form.

It is the student’s responsibility to provide information to support the challenge. The challenge must be filed and resolved prior to the student’s registration appointment time.

**Criteria for challenging a course are:**

1. You have the knowledge or the ability to succeed in the course without the prerequisite. or
2. The course which provides the prerequisite is not available. or
3. You believe that the prerequisite is discriminatory or is being applied in a discriminatory manner. or
4. You believe that the prerequisite was established in violation of regulations and/or the established District-approved policy and procedures.

   Students must bring transcripts from other colleges/universities or high schools with them to their counseling appointment to establish that prerequisites have been met elsewhere. The counselor will review the college/university catalog published the year the course was taken.

   Once you have completed the challenge procedure, your challenge will be reviewed by a Prerequisite Challenge Committee, which consists of a member of the appropriate department and the instructional dean. You will be informed in writing of the committee’s determination within five (5) working days. If you are dissatisfied with the decision rendered by this body, you may appeal that decision to the Dean of Academic Affairs.

**Retention Awards Program**

The Retention Awards Program recognizes students who have successfully completed a semester of course work at Cerritos College. Successful completion is based on: Receiving no “W” grades in any course, earning a “C” or better in each CREDIT course of at least 3 units, enrolled in at least one pre-collegiate basic skills course (as defined by Title 5), and enrolled in a minimum of nine semester units.

Students meeting the aforementioned criteria qualify for a congratulatory letter from the Vice President of Academic Affairs/Provost, the Vice President of Student Services/Assistant Superintendent, and the Retention Awards Program Coordinator.
Registration Information

COUNSELING

Of major importance to every student enrolled at Cerritos College is the comprehensive counseling service that is provided to assist students in achieving their educational goals as fully, smoothly, and as efficiently as possible. The constant change of requirements and prerequisites for institutions and occupations make continuing contact with the Counseling staff a vital part of the student's successful academic experience.

The counseling service consists of four major functions:
(1) assistance in planning academic programs;
(2) assistance in exploring career possibilities;
(3) consultation regarding personal problems; and
(4) provision of additional auxiliary services, such as personal development classes, articulation with transfer institutions, referrals to outside agencies, orientation classes, and placement interpretation.

These various services are offered by a professional staff of credentialed counselors trained to help students in the appropriate areas of their concerns. The counseling staff works closely with all divisions of the College and keeps abreast of the educational programs both here and at the four-year institutions.

Although the use of counseling services are on a voluntary basis, all entering freshmen, students on probation, students transferring in from other schools, F-1 VISA students, and students on financial aid are required to meet with a counselor for program planning and approval before registration. Generally, students should schedule conferences each semester. Counseling appointments may be made in person at the Counseling Center located in the Administration Building or by telephoning (562) 860-2451, Ext. 2231.

Walk-in counseling is also available. Contact the Advisement Center for hours scheduled for walk-in counseling.

REGISTRATION

Exact registration dates, and registration procedures are contained in the schedule of classes printed for each session.

The registration process is not completed until fees have been paid and the student's program has been validated. No credit is given unless the student has been officially enrolled in the course.

ADMISSION TO CLASS

Students must be officially enrolled before attending any class. Students must attend the first class meeting or their name may be removed from the roll to allow students seeking admission on an availability card to enter. If students are unable to attend the first meeting, the instructor must be notified.

It is the policy of Cerritos Community College District that, unless specifically exempted by statute, every course, course section or class, the average daily attendance of which is to be reported for state aid, wherever offered and maintained by the district, shall be fully open to enrollment and participation by any person who has been admitted to the college and who meets such prerequisites as may be established.

AUDITING COURSES

Auditing of courses is permitted at Cerritos College. An auditor is a student who attends a course(s) for no credit. Auditing may be available for any student who wishes to attend a course lecture/lab for information, review purposes or skills building once the instructor's permission is granted.

Students who are accepted in a course on an audit basis are required to pay a fee of $15.00 per unit at the Business Services Fee Station. The audit fee is not refundable to the student. Students who enroll in credit courses for 10 or more semester units shall not be charged a fee to audit three (3) or fewer units per term.

Formal requests to audit cannot be made until the close of registration. Course attendance as an auditor shall be permitted only after students otherwise desiring to enroll in the course for credit toward a degree or certificate have had an opportunity to enroll.

Students auditing are prohibited from changing their enrollment to credit status and the attendance of auditors is not included for purposes of state apportionment.

For additional information regarding auditing, students may make inquiries at the Counseling Office, Academic Affairs Office, Business Services Fee Station, Division Offices or the Office of Admissions and Records.

CHANGE OF PROGRAM

Once the student's official program has been approved and filed with the Office of Admissions and Records and a change in program is necessary, a request for a change of program may be made in the Admissions Office.

STUDY LOAD

In order to meet graduation requirements in four semesters, students must carry an average of 16 units of credit each semester. Students desiring to enroll in more than 18 units must have the approval of a counselor. Other unit limitations are:

- Foreign Visa Students not less than 12 units.
- Intercolligate athletics not less than 12 units.

Repetition of Courses

A student may repeat the same course ONLY ONCE for purpose of improving a substandard grade ("D," "F," or "NC"). Only the highest grade and grade points will be counted in computing the student's GPA. For any course repetition in what is otherwise a non-repeatable course, credit and grade points will be counted only once. Students may petition the Academic Records and Standards Committee for exceptions to this policy.

Other courses which are designated in the catalog may be repeated as many times as the catalog indicates.

It is recommended that students see a counselor before repeating any course.

Course repetition regulations as required by Section 58161, Title V, Administrative Code became effective Fall Semester, 1983.

1. State apportionment shall not be allowed for the attendance of a student in a course in which the student has previously received a grade from Cerritos College except under the following conditions:
   a. The student is repeating the course to alleviate substandard work which has been recorded on the student's record. The term "substandard" shall be defined as course work for which the grading symbol "D," "F," or "NC" has been recorded; or
   b. The District finds that the student's previous grade is, at least in part, the result of extenuating circumstances. Extenuating
circumstances are verified cases of accidents, illness, or other circumstances beyond the control of the student; or

c. The District has determined that a student should repeat a course because there has been a significant lapse of time since the student previously took the course. The student may repeat such a course for which a grade of “C” or better has been received provided all of the following conditions are met:
1. The course is a prerequisite for admission to a higher level course or is a prerequisite for entry into a program.
2. There is a need for review or updating of content or skills.
3. It has been at least two calendar years since the course was completed. (An exception may be made for that student who was progressing in a special program, discontinued because of extenuating circumstances, and has departmental approval to re-enter the program contingent upon the repeat of specified courses at earliest availability).
4. Repetition of the course is approved by the counselor prior to registration.

Grades awarded for courses repeated in which a grade of “C” or better was received shall not be counted in calculating a student’s grade point average.

The attendance of students repeating a course as authorized by the above may be claimed only once for State apportionment.

2. State apportionment for repetition of courses may be claimed for courses in which course content differs each time it is offered, and the student who repeats it is gaining an expanded educational experience for one of the following reasons:
   a. Skills or proficiencies are enhanced by supervised repetition and practice within class periods; or
   b. Active participatory experience in individual study or group assignments is the basic means by which learning objectives are obtained.

### Cerritos College has identified the courses listed below as repeatable under the above guidelines for the maximum number of units listed.

**PLEASE NOTE:**

A computer system identifies a student who is attempting to repeat a course more than the permitted number of times. A program to check for course repetition is run before the semester begins and again at check points during the first part of the semester. A student attempting to repeat a course which is nonrepeatable under the above guidelines is automatically dropped from the course.

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<td>BUSC 153</td>
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<td>3.0</td>
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<td>BUSC 154</td>
<td>Introduction to Congressional Record</td>
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<tr>
<td>BUSC 155</td>
<td>Multiple Voice-Colloquy I Computerized Shorthand Speed Building I</td>
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<tr>
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<td>Jury Voire Dire Procedures Computerized Shorthand Speed Development (140-170 wpm)</td>
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<tr>
<td>BUSC 157</td>
<td>Congressional Testimony Computerized Shorthand Speed Development (160-190 wpm)</td>
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<td>BUSC 158</td>
<td>Professional Practices Hearings/Conferences Computerized Shorthand Speed Development (180-210 wpm)</td>
<td>3.0</td>
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<td>BUSC 159</td>
<td>In Curia/In Camera Procedures Computerized Shorthand Speed Development (190-225 wpm)</td>
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<tr>
<td>BUSC 173/174</td>
<td>Business Court Reporting/Computerized Shorthand Occupational Work Experience</td>
<td>3-4</td>
<td>15-16</td>
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<tr>
<td>BUSC 180</td>
<td>Computerized Shorthand Speed Building (225 wpm)</td>
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<tr>
<td>BUSC 185</td>
<td>CSR/RPR Examination Preparation</td>
<td>1.5</td>
<td>4.5</td>
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<tr>
<td>BUSC 190</td>
<td>Medical Transcription I/ Court Reporting Method</td>
<td>3.0</td>
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<tr>
<td>BUSC 191</td>
<td>Medical Transcription II/Court Reporting Method</td>
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<td>Transcription Procedures</td>
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<td>BUSC 193</td>
<td>Basic Captioning</td>
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<tr>
<td>BUSR 172</td>
<td>Business Real Estate Occupational Work Experience</td>
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<td>Business Real Estate Occ Work Experience</td>
<td>3-4</td>
<td>15-16</td>
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<tr>
<td>BUSR 185</td>
<td>Culinary Arts Occ Work Experience</td>
<td>3-4</td>
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<td>BUSR 190</td>
<td>Early Childhood Education Occ Work Experience</td>
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<td>CDIA 73/74</td>
<td>Inst Aide Occ Work Experience</td>
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<td>Dance Workshop</td>
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<td>PE 200</td>
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<td>Baseball Off-Season Conditioning</td>
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<td>Basketball, Men</td>
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<td>12.0</td>
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<tr>
<td>PE 204</td>
<td>Basketball, Women</td>
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<tr>
<td>PE 206</td>
<td>Cross Country, Men</td>
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<td>PE 207</td>
<td>Cross Country, Women</td>
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<tr>
<td>PE 210</td>
<td>Football, Men</td>
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<tr>
<td>PE 211</td>
<td>Football Conditioning</td>
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<td>PE 212</td>
<td>Football Training and Techniques</td>
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<td>PE 213</td>
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<td>PE 228</td>
<td>Tennis Conditioning</td>
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<tr>
<td>PE 229</td>
<td>Tennis, Women</td>
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<td>12.0</td>
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<tr>
<td>PE 231</td>
<td>Track &amp; Field, Men</td>
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<td>12.0</td>
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<tr>
<td>PE 233</td>
<td>Track &amp; Field, Women</td>
<td>3.0</td>
<td>12.0</td>
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<td>PE 234</td>
<td>Track &amp; Field Conditioning</td>
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<td>PE 235</td>
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<td>Volleyball Pre-Season Conditioning</td>
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<td>PE 239</td>
<td>Water Polo - Men</td>
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<td>Wrestling</td>
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<td>PHAR 173/174</td>
<td>Pharmacy Tech Occ Work Experience</td>
<td>3-4</td>
<td>6-8</td>
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<td>PHAR 176</td>
<td>Occupational Work Experience</td>
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<td>15-16</td>
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<tr>
<td>PMT 2</td>
<td>Injection Molding Fundamentals</td>
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<td>PMT 43/44</td>
<td>Plastics Manufacturing Technology</td>
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<td>15-16</td>
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<tr>
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<td>PE 158B</td>
<td>Racquetball, Intermediate/Advanced</td>
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<td>PE 160</td>
<td>Self Defense for Women</td>
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<td>PE 170</td>
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<td>PE 171B</td>
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<td>PE 176A</td>
<td>Basketball</td>
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<td>PE 177</td>
<td>Flag Football for Women &amp; Men</td>
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<td>PE 178</td>
<td>Football, Intermediate/Advanced</td>
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<td>PE 179A</td>
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<td>2.0</td>
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<td>Soccer, Intermediate/Advanced</td>
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<tr>
<td>PE 180</td>
<td>Introduction to Dance Movement</td>
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<td>PE 181</td>
<td>Introduction to Dance Cultures of the World</td>
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<tr>
<td>PE 182A</td>
<td>Dance, Modern, Beginning</td>
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<td>PE 182B</td>
<td>Dance, Modern, Intermediate</td>
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<td>PE 183</td>
<td>Dance Production</td>
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<td>PE 184</td>
<td>Choreography</td>
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<td>PE 186A</td>
<td>Beginning Ballet</td>
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<td>PE 186B</td>
<td>Intermediate Ballet</td>
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TH 144  Musical Theatre Workshop  3.0  6.0
TH 145  Costume Production for Dance  1.0  4.0
TH 155  Radio Production  3.0  12.0
TH 156  Video Production  3.0  12.0
TH 160  Great Films Directors  3.0  6.0
TH 216  Acting for the Camera  3.0  6.0
TH 221  Costuming for the Stage  3.0  6.0
TH 258  Writing for Movies and Television  3.0  6.0
WELD 43/44  Welding Occ Work Experience  3.4  15-16
WELD 51L  Advanced Arc Welding Specialty Lab  1.0  4.0
WELD 54L  Advanced Pipe Welding  2.0  4.0
WELD 210L  Advanced Arc Welding  2.0  6.0
WELD 240  Advanced Tungsten Arc Welding Lab  2.0  4.0
WELD 250L  Gas Tungsten Arc Welding Specialty Lab  2.0  4.0
WMT 43/44  Woodworking Manufacturing Tech Occ Work Experience  3.4  15-16
WMT 102  Machine Wood Technology  4.0  8.0
WMT 103  Machine Wood Technology II  4.0  8.0
WMT 107  Wood Finishing  3.0  6.0
WMT 111L  Introduction to Woodworking Lab  1.0  4.0
WMT 118  Wood Turning  2.0  4.0
WMT 132  Chair Design and Construction  4.0  8.0
WMT 134  Frame Making  4.0  8.0
WMT 137  Outdoor Furniture  2.5  10.0
WMT 148  Furniture Making and Manufacturing  4.0  8.0
WMT 155  Architectural Millwork  4.0  8.0
WMT 171  Introduction to Wooden Boat Building  3.0  6.0
WMT 181  Introduction to Computer Operations for Cabinetmaking and Design  2.5  5.0
WMT 201  Woodworking with Hand Tools  4.0  8.0
WMT 202  Advance Machine Wood Tech  4.0  8.0
WMT 211  The Workbench Class  4.0  8.0
WMT 228L  Production Furniture Making and Manufacturing  2.0  8.0
WMT 229L  Comprehensive Woodworking Manufacturing Specialty  2.5  12.5
WMT 233  Morris Chair  4.0  12.0
WMT 248  Production Furniture Making and Manufacturing  4.0  12.0
WMT 249L  Furniture Manufacturing Specialty  2.5  10.0
WMT 251  Advanced Cabinetmaking  2.0  8.0
WMT 253  Advanced 32MM System of Cabinetmaking  3.0  9.0
WMT 268  Production Cabinetmaking and Manufacturing  5.0  15.0
WMT 269L  Cabinetmaking Manufacturing Specialty  2.5  10.0
WMT 281  Advanced Computer Operations for Cabinetmaking and Design  2.5  5.0

PROGRAM PLANNING

Students are expected to take courses on a consecutive basis. Students are not to receive credit for courses which are considered lower in degree of advancement than those already taken. Courses are to be taken in accordance with the student's ultimate objective and major.

CHANGE OF ADDRESS

Changes in address must be reported immediately to the Office of Admissions and Records. Failure to comply with attendance and residence regulations may result in dismissal from the College.

COLLEGE UNITS

Each college course is worth a certain number of “units” or “credits” or semester “hours.” This number is determined by the type of class it is and the number of hours per week that it meets. For example, a three (3) unit lecture class (English or Health) meets three hours per week during a regular eighteen week semester, but a one (1) unit labo-
without permits will be cited. Vehicles may be parked only in spaces or areas designed for vehicle parking. All vehicles must be parked with the front of the vehicle heading into the parking stall. Students may not park in staff parking lots.

A one-semester parking permit may be purchased at Registration, or anytime during the semester at the Payroll/Fee Station or Campus Police Department, for $20.00 for fall or spring semesters and $10.00 for the summer session. A daily permit may be obtained for a $1.00 from the yellow Park-Ur-Self meters located on the sidewalks in the student parking lots. The meters accept four quarters or a $1.00 bill (meter does not dispense change). Students may not park in staff parking lots or stalls unless they are disabled and have a “DP” plate or placard AND a student parking permit displayed. Disabled visitors are not required to purchase a parking permit if they display a DP plate or placard and park in “Blue Curb” zones. During the “open registration” period listed in the class schedule, parking is free in student stalls in lots C-1 and C-2. VEHICLES NOT DISPLAYING A VALID PERMIT OR INCORRECTLY PARKED IN STAFF, METERED, OR HANDICAPPED STALLS, ETC., WILL BE ISSUED A PARKING CITATION.

Parking Areas
Vehicles authorized to park on the Cerritos College campus shall be parked head in only in areas that have been painted with white lines indicating parking stalls. Park only in the area designated by your permit except for handicapped students with DMV permit and Cerritos College permit.

Designated Parking Areas are Color Coded:
WHITE . . . . . . . . . . . . . Student parking, student parking permit required.
YELLOW . . . . . . . . . . . . . Faculty and staff, permit required.
GREEN . . . . . . . . . . . . . Timed coin-operated meters.
BLUE . . . . . . . . . . . . Handicapped-DMV permit and Cerritos College permit required.
WHITE GRID MARKED . . Motorcycle parking only.
PINK . . . . . . . . . . . Cosmetology patron parking-located in Lot C-11. Pink cosmetology patron parking permit required.

Bicycles and mopeds must park in designated areas only. All designated student and staff parking areas will be enforced Monday through Friday, 7:30 a.m. to 10:00 p.m.

Moped parking
Mopeds will be parked in the appropriate racks located near C-2, C-7 and C-11. Mopeds must have valid California Motor Vehicle registration and driver must be licensed for this vehicle.

Parking on the Interior Campus
Bicycles and mopeds are to park in District provided racks. Violators will be cited. Only those vehicles with approval from college’s Campus Police Office are permitted to drive and park on the interior and sidewalks of the campus. Violators will be cited and/or the vehicle taken and put into storage.

Responsibilities for Penalties
The registered owner of any vehicle on campus may be held responsible for liability or damage claims including parking or other traffic violation penalties arising in connection with the possession and/or operation of the vehicles on the Cerritos College campus.

Lost, Stolen, or Damaged Permits
Replacements for lost, stolen, or damaged permits may be purchased at the Campus Police Department or Payroll Office in accordance with the fees indicated.

Refunds
Parking permit refunds will be given through the Payroll Office. Before classes begin, a 100 percent refund will be given. After classes begin, no refund will be given.

Liability
Cerritos College is not responsible and assumes no liability for damage or theft of any vehicle or its contents.
Scholars’ Honors Program

The Scholars’ Honors Program (SHP) at Cerritos College provides transfer-bound students with the opportunity to enrich themselves through participation in unique, challenging and interactive educational experiences. The SHP promotes this goal by providing an office that supports and assists students, by offering special Honors course sections taught by outstanding professors, and by offering opportunities for students to work one-on-one and in class with these faculty members through honors research contracts.

Honors courses build skills in speaking, writing, analytical thinking, problem-solving and task-management. They fulfill basic general education requirements for graduation and transfer to a four-year college or university.

ADVANTAGES OF HONORS

Honors programs in the community college are the least expensive and one of the most efficient ways to get a good education and prepare for admission to the 4-year university or college of your choice.

Major universities that reject most of those who apply as freshmen will often accept most of the community college honors program students who apply for junior year transfer.

The Scholars’ Honors Program at Cerritos is an effective way to develop your reading, writing, critical thinking and research skills and to learn to work directly with faculty members. This helps you to get good letters of recommendation that can be used for transferring to a four-year college or university, or applying for a job, internship or special program.

BENEFITS FOR SHP STUDENTS

• Working one-on-one with professors
• Small SHP course sizes
• Library privileges at UCLA and UCI
• Participation in regional and national honors conferences
• Guaranteed acceptance into several CSU honors programs offering priority registration
• Guaranteed admission or priority consideration for admission at:
  UC Irvine • Chapman University
  UCLA • Occidental College
  UC Riverside • Pitzer College
  UC Santa Cruz • Pomona College
  University of Pepperdine
  University of Southern California...and others

REQUIREMENTS OF THE PROGRAM

SHP students must maintain a cumulative GPA of at least 3.0 in all their transferable courses and complete a total of six honors courses from the two options below:

1. SHP Courses Many typical general education courses have honors sections. These have smaller enrollments than other courses. They offer different teaching approaches, more opportunity for hands-on experience and direct communication with the professors.
2. SHP Contracts Each semester the schedule of classes lists courses which are available for SHP contracts. Students undertaking a contract work closely with the instructor to design and complete a special honors project connected with the regular course. On completion of the project, the student earns honors credit for the course.

CRITERIA FOR ADMISSION TO THE SHP

• All students must demonstrate (through placements tests or other means) readiness to start English 100 (freshman composition)
• Accepted students must achieve eligibility for Math 80 (second year algebra) within one year.
• High School students must have a cumulative GPA of 3.25 or above
• Current college students must have a cumulative GPA of 3.0 on at least 12 transferable units.

For applications or further information, contact:

Cerritos College
The Scholars’ Honors Program
(562) 860-2451, ext. 2728
shp-info@cerritos.edu
On the Web: http://www.cerritos.edu/shp
Scholarship Regulations

FINAL EXAMINATIONS

Instructors at Cerritos College have established their course requirements within the framework of the College's philosophy and requirements.

Final examinations are required in all courses. A schedule for final examinations is posted two (2) weeks in advance of each semester's examination period. Students are expected to take examinations when scheduled; but in the event of an emergency or severe illness, the instructor should be notified.

GRADING

Accomplishment in course work is indicated by the following symbols:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Definition</th>
<th>Grade Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>Passing, less than satisfactory</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>Failing</td>
<td>0</td>
</tr>
<tr>
<td>CR</td>
<td>Credit (at least satisfactory; the equivalent of a &quot;C&quot;; units awarded not counted in GPA)</td>
<td>0</td>
</tr>
<tr>
<td>NC</td>
<td>No credit (less than satisfactory or failing - units not counted in GPA)</td>
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</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td>0</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal</td>
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<tr>
<td>*RD</td>
<td>Report Delayed</td>
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*RD - The RD symbol is 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 shall not be used in calculating grade point averages.

GRADE CHANGES

The determination of the student's grade by the instructor shall be final in the absence of mistake, fraud, bad faith, or incompetency. The correction of a grade given shall only be allowed for a request initiated within one year following the end of the term in which it was assigned.

Exceptions to the one-year limit on grade changes may be requested by petition of the student in extenuating circumstances. Extenuating circumstances are verified cases of accident, illnesses, or other circumstances beyond the control of the student. (Title 5, Section 55760. Board of Trustees Policy 12/8/1992).

INCOMPLETE

Students are not to re-enroll for a course in which a grade of “I” has been recorded. 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 instructor in a written record. This record shall contain the conditions for removal of the “I” and the grade assigned in lieu of its removal. This record must be given to the student with a copy on file with the Admissions and Records Office until the “I” is made up or the time limit has passed. A final grade shall be assigned when the work stipulated has been completed and evaluated, or when the time limit for completing the work has passed. The “I” must be made up no later than one year following the end of the term in which it was assigned. The “I” symbol shall not be used in calculating units attempted nor for grade point averages.

A student may petition for a time extension due to unusual circumstances.

WITHDRAWAL

Once students are enrolled it is their responsibility to attend class and complete the course requirements. It is the responsibility of the instructor to withdraw a student who is no longer participating in a course. (Title 5, Section 58004 (C) (3).

Withdrawal from a class or classes shall be authorized through the last day of the fourteenth week of the semester (or 75% of a term, whichever is less). The academic record of a student who remains in a class beyond the date allowed for withdrawal must reflect a symbol as authorized in Title 5, Section 55757, other than a “W.” “W’s” shall not be used in calculating grade point averages, but excessive “W’s” shall be used as factors for probation and dismissal procedures. A student who has a withdrawal ("W") in the same course two or more times, loses the privilege of priority registration for that course. Students may petition the Academic Records and Standards Committee for exceptions to the Withdrawal Policy. Failure to withdraw may result in an "F" grade for each of the classes not dropped.

WITHDRAWAL FROM CLASS - EXTENUATING CIRCUMSTANCES

1. The Board of Trustees authorizes withdrawal from class (classes) in extenuating circumstances after the last day of the fourteenth week (or 75% of the term, whichever is less) upon petition of the student or his/her representative and after consultation with the instructor(s) or appropriate faculty. Extenuating circumstances are verified cases of accidents, illnesses, or other circumstances beyond the control of the student. Withdrawal after the end of the fourteenth week (or 75% of a term, whichever is less) when the district has authorized such withdrawal in extenuating circumstances, after consultation with appropriate faculty, shall be recorded as a “W.”

2. Verified cases of accidents, illnesses, or other circumstances beyond the control of the student means those circumstances that have been documented in writing. For example - an illness must be verified in writing by a physician or hospital, a change in job verified in writing by the employer.

3. Procedure for Withdrawal
   a. The student or his/her representative initiates the request with appropriate faculty.
   b. The faculty member may deny or approve the request. Approval is contingent on verification of reason or circumstance by the appropriate Instructional Dean. The faculty member completes and signs the grade change request form and forwards it to the Instructional Dean.
   c. The student is referred to the appropriate Instructional Dean who will request and approve written verification of the reason or circumstances.
   d. Students are not to handle the request form or be involved in the process once the faculty member has agreed to approve the request.
   e. Students are not to be given a change request form.
   f. The written verification of the reason or circumstances will be attached to the grade change request form when approved by the Instructional Dean for forwarding to the Admissions Office.
TRANSCRIPTS OF RECORD
A transcript of all college work completed may be obtained by any of the following methods:
1. To order transcripts over the phone, please call the following toll-free number, 1-888-775-2853, and follow the prompts.
2. To order transcripts by Internet, direct your browser to the following URL address (http://www.campusdirect.com), and select Cerritos College from the pulldown menu. Click on the "Transcripts" button and fill in the appropriate information.
3. To order transcripts through the mail, please send a check or money order made payable to: Transcript Express at Transcript Express, P.O. Box 202, Conshohocken, PA 19428.
4. To order transcripts via fax, call the toll-free 888 number first to find out what information to submit. Then fax your request with all student and destination information along with your credit card number and expiration date to the following fax number: 1-888-775-2854.
5. To order transcripts in person, apply at the Admissions and Records Office.

Failure by a student to pay proper financial obligation due to the college or district may result in the withholding of grades, transcripts, diplomas, or registration privileges or any combination thereof. (Education Code, section 72237).

Here is a list of some of the requirements you will need in order to place a transcript request in each of these cases:
- Your student ID or social security number
- Your full name
- Your date of birth.
- Where to send the transcript (destination information).
- Your signature for mail-in or fax-in requests.
- Dates of attendance.
- A valid credit card and expiration date.

For a list of all the requirements please call the toll-free 800 number and listen to the fax/mail-in menu or option #2 at the beginning of the call.

VERIFICATION OF STUDENT STATUS FEES
The following are the fees for verification of enrollment:
- $2.00 per verification of status.
- $7.00 additional rush fee per verification to be completed within 48 hours.

Exemptions for these fees are for verification of enrollment and grade point average for the California Student Aid Commission for financial aid purposes.

GOOD STANDING
Students are considered to be in good academic standing with a cumulative grade point average of 2.0 or higher for all course work attempted.

PROBATION
A. Academic Probation
Students who have attempted at least twelve (12) semester units as shown by the official academic record shall be placed on academic probation if the students have earned a grade point average of 2.0 or higher in all units undertaken at Cerritos College.

B. Progress Probation
Students who have enrolled in a total of at least twelve (12) semester units as shown by the official academic record shall be placed on progress probation when the percentage of all units at Cerritos College in which the students have enrolled and for which entries of “W,” “I,” and “NC” are recorded reaches or exceeds 50 percent.

Probation is entered on the student’s permanent records and transcripts of record. Students placed on academic or progress probation will be notified by mail to the address listed on the official college record.

PROBATION CLEARANCE
A. Academic Probation Clearance
Students may clear academic probation by earning sufficient grade points to raise the cumulative grade point average to 2.0 or higher in the next semester of attendance. Probation status is not cleared by one semester of 2.0 GPA if it does not raise the cumulative GPA to 2.0 or higher.

B. Progress Probation Clearance
Students may clear progress probation by decreasing the percentage of "W", "I", or "NC" entries to less than 50 percent of all units in which the students have enrolled.

STANDARDS FOR DISMISSAL
A. Academic Dismissal
Students are subject to academic dismissal when their GPA is less than 2.0 in 12 units or more for two consecutive semesters on academic probation. Students subject to academic dismissal shall be placed on continued probation when for their latest semester’s GPA is 2.0 or better.

B. Progress Dismissal
Students who have been placed on progress probation shall be subject to dismissal if the percentage of units in which the students have been enrolled and for which entries of “W,” “I,” or “NC” are recorded in at least two (2) consecutive semesters reaches or exceeds fifty percent. Students subject to progress dismissal shall be placed on continued probation when for their latest semester no “W”, “I”, or “NC” entries are recorded.

Students are notified they have been placed on probation shortly after the beginning of the Spring Semester. Dismissal notices are issued before the start of the Fall Semester. Dismissed students may attend Summer Session to improve academic deficiencies for readmission.

REINSTATEMENT AFTER DISMISSAL
A. Academic Reinstatement
Students may re-enter the semester following academic dismissal through successful petition to the Academic Records and Standards Committee. However, such students will remain on probation until the accumulated GPA is 2.0 or higher.

B. Progress Reinstatement
Students may re-enter the semester following progress dismissal through successful petition to the Academic Records and Standards Committee. However, such students will remain on probation until the percentage of “W”, “I,” or “NC” entries is less than 50 percent of all units in which the students have enrolled.

Petitions must be filed prior to August 1 for the Fall registration. Students who have been dismissed from another college or university must also file a petition by the above date.
DISMISSAL FROM CLASS OR COLLEGE

Excessive absences, unsatisfactory academic or progress achievement, undesirable citizenship, or falsification of information supplied to the Office of Admissions and Records shall serve as a basis for dismissal from a class or from the college.

ATTENDANCE

It is the responsibility of students to attend classes regularly and apply themselves to the college studies in which they are enrolled. When students have been absent due to illness, they should report to the instructor in charge to explain the absence. When the hours of absence exceed one more than twice the number of class hours per week, the students are considered to be excessively absent and are subject to exclusion from class.

For summer school, a student is considered excessively absent and subject to exclusion from class when the hours of absence exceed ten percent (10%) of the total class hours.

Listed below are two types of absences which permit the making up of work missed, provided that the work is of such a nature that it can be made up.

1. AUTHORIZED ABSENCE: For an approved educational field trip or school activity.
2. EXCUSED ABSENCE: For illness, injury, or quarantine.
3. JURY DUTY: Serving on jury duty is a civic and expected responsibility. Typically, courts tend to be lenient with students who are pursuing their education. If, however, an active student is required to serve on jury duty, an arrangement must be worked out in such a way that the student, upon presentation of proper documentation, will not be penalized with a substandard grade in a course. Should an impasse develop between a faculty member and student, a decision can be appealed to the Dean of Academic Affairs before the final grade is assigned.

NO CREDIT WILL BE GIVEN FOR A CLASS IN WHICH A STUDENT IS NOT OFFICIALLY ENROLLED.

Students must attend the first class meeting or their names may be removed from the roll to allow another student seeking admission on an availability card to enter. If a student is unable to attend the first class meeting, the instructor must be notified.

BASIC SKILLS COURSE LIMITATIONS

No more than a total of thirty (30) units from the remedial courses listed below are allowed:

- BCOM 46
- ENGL 20, 22, 32
- MATH 20, 40, 42
- READ 41T, 42, 43, 44, 46

"Remedial course work" refers to pre-collegiate basic skills courses (i.e., courses in reading, writing, computation, learning skills, study skills) which are designated as non-degree applicable courses, the purpose of which is to prepare students for successful completion of associate in arts degrees, transfer, or certificate courses.

As students near this thirty (30) unit limit, they will be notified by the Dean of Academic Affairs and referred to a counselor for educational planning.

Students enrolled in one or more courses of English as a Second Language (ESL) or students identified as having a learning disability are exempt from the thirty (30) unit limitation. A student who has completed thirty (30) units of remedial course work, shall be barred from registering in pre-collegiate basic skills classes and referred to other appropriate agencies to develop the skills necessary to enter college-level course work.

ACADEMIC RENEWAL REGULATIONS

An Academic Renewal procedure permits alleviation of previously recorded sub-standard ("D," "F," and "NC") academic performance which is not reflective of a student's present demonstrated ability and level of performance. The permanent academic record shall be annotated in such a manner that all work remains legible, ensuring a true and complete academic history.

1. A student may request that substandard course work attempted in up to two semesters be annotated and disregarded in the computation of the student's grade point average or requirements for a degree. Only those requested courses with substandard grades will be disregarded.
2. At least twenty-four (24) units of college work with a grade point average of 2.0 must be completed. Twelve (12) of those units must be completed at Cerritos College.* The twenty-four (24) units with the 2.0 ("C") grade point average must be completed subsequent to the semester(s) from which course work is to be alleviated.
3. At least one (1) calendar year must have elapsed from the time the grades to be disregarded were earned.
4. A student may be granted academic renewal only once.
5. No alleviated course work shall apply toward degree requirements.
6. In the petition, the student must specify course(s) to be considered under the academic renewal policy as well as the term in which the course work was attempted.
7. Some senior-level institutions and, possibly, certain out-of-state community colleges do not honor academic renewal. It is the student's responsibility to insure that his/her transfer institution will approve of academic renewal from Cerritos College.

A student may petition for academic renewal at the Office of Admissions and Records. The Academic Records and Standards Committee will review all petitions and determine if the petition will be granted.

* A student wishing to have the twelve-unit requirement waived may petition the Academic Records and Standards Committee by obtaining and completing the appropriate form and filing it in the Admissions and Records Office.

GRADE REPORTS

Semester grade reports are available to students at the Admissions and Records Office approximately three weeks after the conclusion of the term.

CREDIT BY EXAMINATION

"Credit by Examination" may be granted for proficiency previously accomplished in other than an accredited institution, for experience, study, travel, or for formal service-connected courses essentially equivalent to a course for which credit is being requested. Credit attempted by this method shall be so marked on the student's permanent record on an A-F grading system.

Units and grade points earned shall be counted toward the Associate in Arts Degree.

Units earned by "Credit by Examination" are not considered as part of the student's official program and will not be used for reports to Social Security, Veterans Administration, or similar agencies. Non-resident students will not be required to pay a tuition fee.

Students shall petition for "Credit by Examination" through a
counselor. Petitioner is to take signed petition to his/her counselor for approval. If counselor approves, the petition must be submitted to the appropriate Instructional Dean for approval. It is the student's responsibility to obtain such approval by the designated deadline. (Deadline dates may vary from department to department. Student should see counselor for deadline dates). Results are forwarded to the Instructional Dean and to the Office of Academic Affairs for approval, then to the Office of Admissions and Records for recording.

Credit by exam for the Foreign Language Department will be set in the fourth week of each semester. It may be taken only for French 101 and 102; German 101 and 102; Japanese 101 and 102; Spanish 101, Spanish 111, Spanish 102, and Spanish 112.

ELIGIBILITY GOVERNING “CREDIT BY EXAMINATION”
1. The student is currently enrolled at Cerritos College.
2. The student's overall G.P.A. in all college units attempted at Cerritos College is 2.0 (This requirement is waived for new entering students.)
3. The course is approved for “Credit by Examination” (See Schedule of Classes for list of approved courses).
4. Student has met prerequisite(s) for the course.
5. The student has not already received credit for a more advanced course which follows this course in sequence.
6. The student has not previously challenged this course.
7. The course is one for which high school or college credit has not been previously granted, unless there is a course articulation agreement between Cerritos College and an educational institution or agency.

A student may earn up to a maximum of 12 units through “Credit by Examination.”

Those students planning to transfer to the University of Southern California should be advised that credit by exam grades are not accepted at U.S.C.

CREDIT/NO-CREDIT COURSES
Title 5, California Administrative Code, permits the granting of credit toward a degree or certificate for courses completed on a credit/no-credit basis.

A. Non-Optional:
The courses are graded entirely on a Credit/No Credit basis. These courses are indicated in the Schedule of Classes. Units earned in such courses shall not be considered as part of the 15 unit limit in the Optional Credit/No Credit policy.

B. Optional:
The option to enroll in a Credit/No Credit class is designed to encourage students to explore courses in which they might have an interest. Only those courses specifically listed by each department may be taken on this basis. Units thus earned will be counted toward the A.A. Degree, but will be disregarded in determining grade point average.

Courses approved for Credit/No Credit will be indicated on the student's permanent record as “CR” with units earned and no grade points or “NC” with no units earned and no grade points. Units attempted for which “NC” is recorded shall be considered in probation and dismissal procedures. The student is required to take all tests, complete all assignments, and shall be subject to withdrawal and attendance regulations. Standards of evaluation are identical for all students. The student shall petition for an optional Credit/No Credit course through the Admissions and Records Office. The approval for such a class must be no later than the end of the first 30 percent of the term.

Only courses which are A.A. Degree applicable may be placed on the optional course list by the departments. Also, “CR” or “NC” grades cannot be converted to a letter grade once the approval form has been filed in the Admissions and Records Office.
ELIGIBILITY GOVERNING "CREDIT/NO-CREDIT COURSES"

1. The student must have a cumulative grade point average 2.0 in all college units attempted.
2. The student may take no more than two courses per semester on a credit/no-credit basis.
3. The course must be on an approved list of credit/no-credit courses. The list is available in the Counseling Office and in the "Schedule of Classes."
4. No more than fifteen (15) units of credit/no-credit courses may be completed at Cerritos College, nor may more than fifteen (15) units earned on a credit/no-credit basis be applied toward the Associate in Arts degree. Some courses are graded entirely on a credit/no-credit basis. These courses are indicated in the schedule of classes. Units earned in such courses shall not be considered as part of the 15 unit limit in the optional credit/no-credit policy.
5. There is no provision for rescinding an approved petition for credit/no-credit.

ADVANCED PLACEMENT EXAM CREDIT

Cerritos College will grant credit for College Board Advanced Placement Examinations. A score of 3, 4, or 5 is required in order to receive units toward the A.A. degree. The number of units earned through Advanced Placement Exams will be noted on the student's transcript. Credit granted can be used to satisfy Cerritos College general education requirements for the A.A. degree as follows:

<table>
<thead>
<tr>
<th>AP Subject</th>
<th>Number of Units</th>
<th>Cerritos College A.A. G.E. Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art: History of Art</td>
<td>3 semester units</td>
<td>5 c. (1)</td>
</tr>
<tr>
<td>Art: Studio</td>
<td>3 semester units</td>
<td>Elective credit only</td>
</tr>
<tr>
<td>Biology</td>
<td>4 semester units</td>
<td>5 a. (2)</td>
</tr>
<tr>
<td>Chemistry</td>
<td>5 semester units</td>
<td>5 a. (1)</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>3 semester units</td>
<td>5 d. (2)</td>
</tr>
<tr>
<td>Computer Science AB</td>
<td>3 semester units</td>
<td>5 d. (2)</td>
</tr>
<tr>
<td>Economics: Macroeconomics</td>
<td>3 semester units</td>
<td>5 b. (3)</td>
</tr>
<tr>
<td>Economics: Microeconomics</td>
<td>3 semester units</td>
<td>5 b. (3)</td>
</tr>
<tr>
<td>*English: English Language and Composition</td>
<td>3 semester units</td>
<td>5 d. (1)</td>
</tr>
<tr>
<td>*English: English Literature and Composition</td>
<td>6 semester units</td>
<td>5 d. (1) and 5 c. (2)</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>3 semester units</td>
<td>5 a. (2)</td>
</tr>
<tr>
<td>French: French Language</td>
<td>5 semester units</td>
<td>5 c. (2)</td>
</tr>
<tr>
<td>French: French Literature</td>
<td>5 semester units</td>
<td>5 c. (2)</td>
</tr>
<tr>
<td>German Language</td>
<td>5 semester units</td>
<td>5 c. (2)</td>
</tr>
<tr>
<td>Government and Politics: United States</td>
<td>3 semester units</td>
<td>5 b. (2)</td>
</tr>
<tr>
<td>Government and Politics: Comparative</td>
<td>3 semester units</td>
<td>5 b. (3)</td>
</tr>
<tr>
<td>History: European History</td>
<td>3 semester units</td>
<td>5 b. (3)</td>
</tr>
<tr>
<td>History: United States History</td>
<td>3 semester units</td>
<td>5 b. (1)</td>
</tr>
<tr>
<td>Latin: Vergil</td>
<td>3 semester units</td>
<td>5 c. (2)</td>
</tr>
<tr>
<td>Latin: Latin Literature</td>
<td>3 semester units</td>
<td>5 c. (2)</td>
</tr>
<tr>
<td>**Mathematics: Calculus AB</td>
<td>3 semester units</td>
<td>5 d. (2)</td>
</tr>
<tr>
<td>**Mathematics: Calculus BC</td>
<td>3 semester units</td>
<td>5 d. (2)</td>
</tr>
<tr>
<td>Music Theory</td>
<td>3 semester units</td>
<td>5 c. (1)</td>
</tr>
<tr>
<td>Physics B</td>
<td>5 semester units</td>
<td>5 a. (1)</td>
</tr>
<tr>
<td>Physics C (mechanics)</td>
<td>3 semester units</td>
<td>5 a. (1)</td>
</tr>
<tr>
<td>Physics C (electricity and magnetism)</td>
<td>3 semester units</td>
<td>5 a. (1)</td>
</tr>
<tr>
<td>Psychology</td>
<td>3 semester units</td>
<td>5 b. (3)</td>
</tr>
<tr>
<td>Spanish: Spanish Language</td>
<td>5 semester units</td>
<td>5 c. (2)</td>
</tr>
<tr>
<td>Spanish: Spanish Literature</td>
<td>5 semester units</td>
<td>5 c. (2)</td>
</tr>
<tr>
<td>**Statistics</td>
<td>3 semester units</td>
<td>5 d. (2)</td>
</tr>
</tbody>
</table>

Students planning to use AP credits toward transfer requirements should consult the transfer institution regarding its policy. Policies do differ at the various colleges and universities. Universities tend to grant credit for all College Board Advanced Placement Tests on which a student scores 3 or higher. The credit may be subject credit, graduation credit, or credit toward general education or breath requirements, as determined by evaluators at each campus. A Cerritos College counselor can help you with your inquiries.

* Also satisfies the Writing Proficiency Requirement for the A.A. degree
** Also satisfies the Mathematics Proficiency Requirement for the A.A. degree.

ACADEMIC HONESTY/ DISHONESTY POLICY

Your instructors are eager to help you succeed in your studies at Cerritos College. But success means more than just receiving a passing grade in a course. Success means that you have mastered the course content so that you may use that knowledge in the future, either to be successful on a job, or to continue on with your education in advanced classes.

Your success depends on a combination of the skill and knowledge of your instructors, and your own hard work. You will reach your future goals only if you gain new knowledge from every course you take. That knowledge becomes yours, and can be used by you, only if it is gained through your own personal efforts. Receiving a grade in a course, without acquiring the knowledge that goes with it, diminishes your chances for future success.

While in college, you are also shaping the principles which will guide you throughout the rest of your life. Ethical behavior and integrity are a vital part of those principles. A reputation for honesty says more about you, and is more highly prized, than simply your academic skills.

For that reason, academic honesty is taken very seriously by the Cerritos College faculty. The following guidelines have been prepared so that you will understand what is expected of you in maintaining academic honesty.

Academic Dishonesty is normally to be dealt with as an academic action by the instructor, reflected in the student's grade in the particular course, rather than through college disciplinary procedures. No specific departmental, divisional or institutional procedures are established for academic dishonesty other than the normal process for review and appeal of an instructor's grading procedures.

Academic Dishonesty is defined as the act of obtaining or attempting to obtain credit for work by the use of any dishonest, deceptive or fraudulent means. Examples of academic dishonesty would include, but not be limited to the following:

- Copying, either in part or in whole, from another's test or examination;
- Discussion of answers or ideas relating to the answers, on examination or test when such discussion is prohibited by the instructor;
- Obtaining copies of an exam without the permission of the instructor;
- Using notes, "Cheat sheets," or otherwise utilizing information or devices not considered appropriate under the prescribed test conditions;
- Altering a grade or interfering with the grading procedures in any course;
- Allowing someone other than the officially enrolled student to represent the same;
- Plagiarism, which is defined as the act of taking the ideas, words or specific substantive material of another and offering them as one's own without giving credit to the source.
Options may be taken by the faculty member to the extent that the faculty member considers the cheating or plagiarism to manifest the student's lack of scholarship or to reflect on the student's lack of academic performance in the course. One or more of the following actions are available to the faculty member who suspects a student has been cheating or plagiarizing:

1. Review—no action.
2. An oral reprimand with emphasis on counseling toward prevention of further occurrences.
3. A requirement that work be repeated.
4. A reduction of the grade earned on the specific work in question, including the possibility of no credit for the work.
5. A reduction of the course grade as a result of item 4 above, including the possibility of a failing grade for the course.
6. Referral to the Office of Judicial Affairs for further administrative action, such as suspension or expulsion.

Student Services

ASSOCIATED STUDENTS

The Associated Students of Cerritos College (ASCC) provides the governing body that finances, organizes, and directs many programs for the student population. It co-sponsors with the district such activities as touchtone registration, athletics, choir, band, forensics, drama, and student newspaper.

The ASCC student government includes legislative, executive, and judicial branches. Participation in these programs and other campus activities has been a significant part of many students' college experience.

STATEMENT OF STUDENT RIGHTS AND RESPONSIBILITIES

PREAMBLE

The community college exists for the transmission of knowledge, the pursuit of truth, the development of students and the general well-being of society. Free inquiry and free expression are indispensable to the attainment of these goals. As members of the academic community students should be encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth and knowledge.

Freedom to teach and freedom to learn are inseparable facets of academic freedom. The freedom to learn depends upon appropriate opportunities and conditions in the classroom, on the campus and in the larger community.

Students should exercise their freedom with responsibility so as not to endanger the rights, goals and beliefs of other students. Cerritos College should be open to all qualified students regardless of race, creed, national origin, disability or sex.

CLASSROOM RIGHTS AND RESPONSIBILITIES

The professor in the classroom and in conference should permit free discussion, inquiry and expression of thought by the student. Student performance should be evaluated solely on an academic basis, not on opinions or willingness to accept professors' personal beliefs, or conduct unrelated to academic standards. Student should be free to take reasoned exception to the data or views offered in any course of study for which they are enrolled and for maintaining standards of academic performance established for each course in which they are enrolled. The student has the right to have the course taught in a systematic, meaningful manner and of knowing at the beginning of the course those academic standards required of the student in the course. Administrative staff and faculty members should respect confidential information about students such as student views, beliefs and political associations, which is acquired in the course of their work. Transcripts of academic records should contain only information about academic status.

ON THE CAMPUS RIGHTS AND RESPONSIBILITIES

Students should be free to examine and discuss all questions of interest to them, and express opinions publicly and privately. They should be free to organize and join associations to promote their common interests. The membership, policies and actions of a student organization will be determined by vote of only those persons who hold bona fide membership in that college organization. Campus advisors shall advise organizations in the exercise of their rights and responsibilities.

Student organizations shall be required to submit a statement of purpose, criteria for membership, rules of procedures, a current list of
officers and the advisor shall certify the list of verified members. Campus organizations should be open to all students.

Student and student organizations should be free to support causes by orderly means which do not disrupt the regular and essential operation of the college. Student organizations shall have the right to recommend, invite and to hear any person of their own choosing as long as such speakers and topics are in accordance with federal, state and local laws, and guarantee the safety of the students and protection of public property. Guest speakers invited by students or student organizations should be subjected only to those policies, requirements, and regulations as established by the Board of Trustees in order to insure an appropriate and meaningful contribution to the academic community. It should be made clear to the academic community and the larger community that the public expressions of students, student organizations and guest speakers speak only for themselves.

As constituents of the academic community, students should be free, individually and collectively, to express their views on issues of institutional policy, instruction, the evaluation of professors as it pertains to their course content and on matters of general interest to the student body.

IN THE LARGER COMMUNITY

College students are both citizens and members of the academic community. As citizens, students should enjoy the same freedom of speech, peaceful assembly and right of petition that other citizens enjoy. As citizens they should be subject to civil law as others and may incur penalties prescribed by civil authorities when violating these laws. Only where the college’s interests as an academic community are distinct and clearly involved should the special authority of the college be asserted.

STUDENT PUBLICATIONS

Student publications and the student press perform the traditional roles of informing, entertaining and influencing. They are both instructional and informational, and as such should meet the highest academic and professional standards in serving the broad college community and should set forth as the primary goal of the student newspaper the coverage of news events, happenings and experiences on the college campus.

Associated Student Body, administrative and academic authorities, in consultation with students and advisors have the responsibility to define and clarify the role of student publications, and the standards to be used in their evaluation.

They must also assure that the academic freedom and editorial freedom are protected and exercised so that the integrity of the student publications program and the free press will not be compromised.

It is incumbent upon student editors and managers to act according to the highest ethics of responsible journalism. This corollary responsibility includes careful adherence to the laws of libel and good taste, and such considerations as the avoidance of indecency, undocumented allegations, attacks on personal integrity, and the techniques of harassment and innuendo and should allow adequate space for rebuttal and differing views in regard to articles in which there is some controversy.

Safeguards to assure freedom of the student press with responsibility should include freedom from censorship or arbitrary control of the press, and protection of editors and managers from arbitrary attack, suspension, or removal because of disapproval of editorial policy or content by any external influence.

DISCIPLINARY PROCEEDING

In all disciplinary actions the student should be informed of the nature of the charges against him/her, that he/she is given a fair opportunity to refute them, and that the institution need not be arbitrary in its actions.

STUDENT GRIEVANCE POLICY

In accordance with the Statement of Student Rights and Responsibilities, this policy will hereafter describe the procedures by which a student(s) of Cerritos College may air his or her grievances as applied to and regarding academic, administration, and instructional matters relating to students, and including, but not limited to, any grievance dealing with any certified or management employee of Cerritos College.

A grievance shall herein be defined as any act depriving a student of any of the rights set forth in the statement of “Student Rights and Responsibility,” or any State, Federal, or local codes. Grades and grading grievance is not covered by this policy. Student should refer to “Grades or Grading Grievance Policy.”

GRIEVANCE PROCEDURE: STEP I - INFORMAL ACTION

A. The student (or group of students), who believe that an injustice has been done to him (them), shall first attempt to resolve the complaint by informal discussion with the employee(s) involved.

B. If the problem is not resolved in step I-A, an informal discussion should take place with the person at the lowest level of authority directly above the person(s) at which the complaint is directed, where authority exists to take corrective action.

C. If the grievant still believes the issue has not been resolved satisfactorily, they may obtain a student grievance form from the Office of Judicial Affairs. After completion of this form, specifying the time, place, nature of the complaint and remedy or correction requested, it should be submitted to the Coordinator of Judicial Affairs who will send a copy of the written statement to the Supreme Court Chief Justice and the Vice President of Academic Affairs. This statement must be submitted within 30 school days after the grievant has become aware of the act or condition on which the complaint is based. A school day is defined as any day Monday through Friday that all normal college business is conducted, both in the classroom and in the administrative offices. All weekend and college holidays are excluded.

D. The ASCC Supreme Court Chief Justice or Court designee shall attempt to resolve the problem through informal meeting and discussion among the pertinent parties while remaining neutral on all issues involved. This informal meeting and discussion will attempt to involve the levels of administration concerned with the problem and should be completed within ten (10) school days (a school day is defined as a day when classes are held). In the event the informal procedure fails, then the formal procedure would be implemented.

STEP II - FORMAL ACTION

A. PRELIMINARY

1. If the grievant does not believe the grievance has been resolved, then the grievant must request through the Chief Justice Step II-Formal Action. The Chief Justice upon receiving the request of a grievant shall call a meeting of the Student Grievance Hearing Committee. The Hearing Committee will be composed in the following manner:

(a) ASCC Chief Court Justice and two (2) Court Justices or designees. Vice President of Academic Affairs or administra-
12. The number of working days indicated at each step herein should be considered a maximum and every effort must be made to expedite the process. Time limits may be extended by mutual consent in writing or by decision of the Hearing Committee.

13. The Hearing Committee should attempt to reach a decision by discussion and consensus on a workable solution. Voting should be a last course of action.

14. If in the course of the proceedings, a student graduates before a solution is found, the student shall not be denied full consideration of this policy. A student may also submit a grievance after graduation if the grievance did not become known until that time.

APPEALS PROCESS

1. If either party is dissatisfied with the recommendation of the Hearing Committee, he may appeal within ten (10) school days to the College President/Superintendent provided the President is not a party to the grievance. If the President is a party to the grievance, and either party is dissatisfied with the recommendation of the Hearing Committee, an appeal may be submitted directly to the Board of Trustees.

2. Upon receiving the findings and recommendations of the Hearing Committee, and after examination of the appeal as requested by either party, the President may accept or reject the Committee's decision.

3. If the President rejects the Committee's decision, he shall submit his decision with the stated reasons for his objections to the Hearing Committee within ten (10) school days. The Hearing Committee shall within five (5) school days reconsider its decisions and re-submit them to the President for his final decision.

4. The President shall transmit his final decision to both parties and the Faculty Senate vice chairman or designee within five (5) school days.

5. An appeal of the President's decision may be submitted to the Board of Trustees by either party. If unresolved, the appeal must be submitted within ten (10) school days after the President's decision. The Board may review an appeal for two (2) consecutive Board meetings before making a final determination of the matter at the college level.

6. The President or Board of Trustees may change the Committee's decision only after reviewing a transcription of the hearing.

STUDENT GRADES OR GRADING GRIEVANCE POLICY

In accordance with the Statement of Student Rights and Responsibilities, Section: “Classroom Rights and Responsibilities,” this policy describes the procedure by which a student of Cerritos College may present his/her grievance on grades or grading practices.

The California Education Code, Section 76224, quoted below, states clearly the conditions upon which grades or grading can be questioned.

“When grades are given for any courses of instruction taught in a community college district, the grade given to each student shall be 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”

GRIEVANCE PROCEDURE STEP I

A student who believes the grade received was due to mistake, fraud, bad faith, or incompetency shall meet with the faculty member to resolve his/her concern.

STEP II

1. The student will obtain grade/grievance forms from the Office of Judicial Affairs.

2. The student must return the grade grievance form to the Office of Judicial Affairs within thirty (30) school days after the completion
of the course for which the grievance was filed. A school day is
defined as any day Monday through Friday that all normal college
business is conducted, both in the classroom and in the adminis-
trative offices. All weekend and college holidays are excluded.
3. The Coordinator of Judicial Affairs will meet with the student and
review the grade grievance form. If the student wishes to pursue
the grievance, the Coordinator of Judicial Affairs will sign and date
the form.
4. The student will present a copy of the grievance to the Division
Instructional Dean. The Instructional Dean may schedule a meet-
ing of all concerned if appropriate. The Instructional Dean should
schedule a meeting only if the form has the signature of the
Coordinator of Judicial Affairs and is dated. The Division
Instructional Dean shall make a recommendation to the parties
within five (5) school days.

STEP III
If either party is dissatisfied with the recommendation of the
Instructional Dean, he/she may appeal the matter to the Vice
President of Academic Affairs or designee within ten (10) school days
of each recommendation. The Vice President of Academic Affairs or
designee shall call a meeting with the student, the ASCC Chief Court
Justice, Division Instructional Dean, and if needed, the faculty
member. The Vice President of Academic Affairs or designee shall make
a recommendation to the parties within five (5) school days.

STEP IV
If either party is dissatisfied with the recommendation of the
Vice President of Academic Affairs, he/she may appeal the matter to the
President of the College within ten (10) school days of such rec-
ommendation. If a faculty member is dissatisfied with a
recommendation and neither acts on it, nor appeals it, the Vice
President of Academic Affairs will forward the matter to the
President. The President will review the Recommendation Report and
if needed, request persons involved in the grievance to meet.

The President shall make a recommendation within five (5)
school days. If either party is dissatisfied with the recommendation of the
President, an appeal of the President’s recommendation may be
submitted to the Board of Trustees by either party. The appeal must
be submitted within ten (10) school days after the President’s recom-
men dation. The Board may review an appeal for two consecutive
Board meetings, and if needed, request persons involved in the griev-
ance to appear before making a final determination of the matter at
the college level.

STUDENT CONDUCT POLICY
INTRODUCTION
The California Education Code requires every community col-
gege governing board to adopt specific rules governing student
behavior along with applicable penalties for violation of such rules.
Students enrolling in Cerritos College assume an obligation to
abide by all college regulations.

GROUNDS FOR DISCIPLINARY ACTION
A student may be disciplined for one or more of the following
causes which must be District related. These categories of behavior
are not intended to be an exhaustive list, but are examples of causes
and are good and sufficient cause for disciplinary action.
1. The use, sale or possession of dangerous drugs, as defined in the
California Penal Code, on campus.
2. Forgery, alteration, or misuse of college documents, records, or iden-
tification.
3. Misrepresentation of oneself or of an organization to be an agent of
the college.
4. Continued disruption on or off college property of the college’s edu-
cational process, administrative process or other college functions.
5. Abuse of any person on college owned or controlled property in the
possession of, or owned by, a member of the college community.
6. Theft, of or willful damage to college property, or property in the
possession of, or owned by, a member of the college community.
7. Violation of college policies or campus regulations including campus
regulations concerning the registration of student organizations, the
use of college facilities, or the time, place, and manner of public
expression.
8. Willful or persistent smoking in any area where smoking has been
prohibited by lawful authority.
9. Disorderly conduct or lewd, indecent, or obscene conduct or expres-
sion on college owned or controlled property or at college sponsored
or supervised functions.
10. Possession or use of explosives, dangerous chemicals, or deadly
weapons on college property or at a college function without prior
authorization of the college president or designee.
11. Assault, battery or any threat of force or violence upon a student or
college personnel.
12. Abusive behavior directed toward, or hazing of, a member of the col-
lege community.
13. Continual willful disobedience and/or persistent defiance of authority.
14. Sexual assault or acquaintance rape. Physical abuse of a mem-
er of the college community.
15. Violation of college policies governing the use of student user
accounts.
16. Any other cause not listed above which is identified as “Good Cause”
by the Education Code.

DISCIPLINARY ACTIONS AND PROCEDURES
1. Official Reprimand — An admonishment or warning that
becomes part of a student’s file and is considered in the event of
future violations.
   1. May be initiated by any faculty or college manager and sent in
   writing to the Office of Judicial Affairs.
   2. The Coordinator of Judicial Affairs shall determine if there
   exists good and sufficient reason to initiate disciplinary action
   and student should be notified of such actions.
2. Disciplinary Probation — Disciplinary action which may
include exclusion of the individual from designated co-curricular
activities of the college community.
   1. Shall be initiated by the Office of Judicial Affairs.
   2. The nature of the misconduct, dates, time and place, and
   length of probation shall be placed in writing. Written copies
   shall be sent to the student, and copies filed with the Office of
   Judicial Affairs.
3. Instructor Removal — Instructor may remove a student from his
or her class when the student has interfered with the instruc-
tional process. Duration will be for the day of the removal and the
next class meeting.
   1. The instructor or Instructional Dean shall immediately report
   the removal to the Office of Judicial Affairs for appropriate
   action such as official reprimand, suspension, or recommenda-
   tion of expulsion.
4. Suspension — An action defined as exclusion from college for
a specified period of time.
   1. Suspensions shall be initiated by the President or designee.
   2. The duration of the suspension from one or more classes shall
   be for a period of up to ten days of instruction, for the remainder
of the school term, or from all classes and activities of the community college for one or more terms.

3. There may be an immediate suspension when necessary to protect lives or property and to insure the maintenance of order pending a hearing within ten school days.

5. Expulsion — Is defined as the removal of a student from any and all classes of the college.

1. Only the Governing Board of the college may expel students for "Good Cause" or when other means of correction fail to bring about proper conduct of a student.
2. The duration of the expulsion may be indefinitely.
3. The expulsion is noted in the permanent file of the student.
4. Readmittance after expulsion requires Governing Board action.

HEARING PROCEDURES

According to the Education Code, the suspension or expulsion of a student shall be accompanied by a hearing.

1. A Hearing Board shall be responsible to the President for reviewing and making recommendation to the President.
2. Membership of the Hearing Board shall include the following:
   A. Two members of the instructional staff appointed by the Faculty Senate.
   B. Two Court Justices appointed by the ASCC Chief Justice.
3. Management — The Coordinator of Judicial Affairs or a member of the management staff of the college appointed by the President. The manager shall serve as the Chairperson of the Hearing Board, but will not vote except to break a tie.
4. Procedures for a Hearing —
   1. Written notice of a hearing shall be mailed or delivered to the student. A hearing must be held within ten (10) days of the suspension if the suspension is an immediate suspension. A school day is defined as any day Monday through Friday that all normal college business is conducted, both in the classroom and in the administrative offices. All weekend and college holidays are excluded.
   2. Notice shall include date and place of hearing, a statement of all charges, a copy of Governing Board policies pertaining to suspension and expulsion, opportunity of student to appear in person, or to employ and be accompanied by counsel, at their own expense, and the opportunity to present evidence, oral and documentary.
   3. Hearings shall be conducted in the manner consistent with the orderly conduct of the affairs of the college, which seems to the Hearing Board most conducive to the determination of the truth.
   4. All hearings shall be tape recorded. Transcripts and a transcript shall be available at all times to parties directly involved, at their own expense.
   5. Immediately following the hearing, the Hearing Board shall submit the recommendation to the President. The President and/or Governing Board will make the final decision.
   6. The decision of the President to suspend shall be given to the student in writing within a five (5) school day period; the decision of the Governing Board to impose expulsion shall be given to the student in writing within two regular Board meetings.

THE OFFICE OF JUDICIAL AFFAIRS

The Office of Judicial Affairs is responsible for student conduct and disciplinary procedures of the college. Inquiries should be directed to the Coordinator of Judicial Affairs, Mr. Patrick Callahan, in the Office of Student Activities or by calling (562) 860-2451, Ext. 2472.

TITLE IX POLICY

No person shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program of activity which... benefits from Federal financial assistance. (Title IX of the Education Amendments of 1972.) It is the policy of the State of California to afford all persons, regardless of their sex, equal rights and opportunities in the educational institutions of the state. (Education Code sections 200-264.) In compliance with Title IX, Cerritos College's educational programs and activities are offered to the total Community without regard to sex. Questions regarding Title IX policies affecting the educational program should be directed to the Dean of Academic Affairs, Dr. Adolph Johnson, Jr., in the Office of Academic Affairs or by calling (562) 860-2451, Ext. 2228.

EQUAL OPPORTUNITY POLICY

Cerritos College believes in a close relationship among students, faculty, staff, and community. The District is strongly committed to achieving staff diversity and the principles of equal opportunity employment. The District encourages a diverse pool of applicants and does not discriminate on the basis of race, color, national origin, ancestry, sex, age, religion, marital status, disability, or sexual orientation in any of its policies, procedures or practices. In fact, the college encourages applications from all segments of qualified people. Questions concerning the application of the policy may be addressed to the Personnel Services Office by calling (562) 860-2451, Ext. 2284.

SECTION 504/ AMERICANS WITH DISABILITIES ACT POLICY

Cerritos College supports the idea that no person shall, on the basis of a physical or mental disability, be unlawfully subjected to discrimination under any program or activity offered under the control of the college. Any student, applicant for admission, employee or applicant for employment who believes he or she has been subject to a discriminatory action on the basis of a physical or mental disability may file a complaint through the following procedures. An individual may also file a complaint directly with the Office of Civil Rights.

COMPLAINT PROCEDURE

The complaining party should first discuss the complaint with the individual(s) involved or with the Cerritos College Section 504/ADA Coordinator (Robert Hughlett, (562) 860-2451, Ext. 2334 or by e-mail at hughlett@cerritos.edu.). The 504/ADA Coordinator will contact all parties concerned and attempt to reach some resolution of the problem. If the complaint cannot be formally resolved within ten working days, the complaining party may then proceed to file a formal complaint. The informal complaint procedure is optional.

STUDENT ORGANIZATIONS

Students are encouraged to participate in campus organizations. Cerritos College offers a variety of campus clubs and organizations for every phase of campus life. They provide opportunities for students in social, service, curricular, and special interest programs.

The club program consists of approximately 60 clubs on campus. Every year new clubs are chartered as they are requested by students. Every club on campus is a part of the Inter Club Council which meets regularly to discuss activities, projects and problems pertaining to its members.

Students with a 2.0 G.P.A. and currently enrolled may join a club. Clubs meet on the 2nd and 4th Tuesday of each month. Information concerning clubs may be obtained in the Office of Student Activities.
The Resource Center assists students with mobility or other health limitations. The services available include: in-class aides, note taking, tutoring referral, test-taking, disability management, textbooks on tape, liaison with instructors and other campus offices, community agency resource information, referral for special instruction, wheelchair loan and storage, calculator and tape recorder loan, use of modified typewriters and specialized equipment, liaison with the Department of Rehabilitation and other agencies, information and referral to Counseling and Guidance and adaptive physical education classes.

INSTRUCTIONAL SUPPORT CENTER: The Instructional Support Center serves students who are learning disabled, developmentally delayed and those with acquired brain injuries. Services available include: learning disability eligibility assessment, pre-registration, disability management, textbooks on tape, liaison with instructors and other campus offices, community agency resource information, referral for special therapy and adaptive physical education, tape recorder and calculator loan, liaison with Regional Center and other agencies. Classes are offered four days per week and are open-entry/open exit. Instruction is designed to prepare for credit enrollment in the college. A lab is also available for students to receive support in other credit courses.

SPEECH, LANGUAGE, AND HEARING CENTER: The Speech, Language and Hearing Center offers assistance to those individuals with communication difficulties due to speech, language or hearing impairments. Individual and small group instruction is provided to students having difficulty with articulation, voice, language, aphasia, hearing impairments, and stuttering. Interpreters, notetakers, referral to appropriate services and specialized instruction in the basic skills are also available for the hearing impaired.

HIGH TECH MICROCOMPUTER CENTER: All visually impaired and those other disabled students who would benefit from microcomputers specifically adapted to accommodate various disabilities are also encouraged to consider the High Tech Microcomputer Center located in the Instructional Support Center. Specialized programs for the learning disabled, large screen software and screen readers for the visually impaired, word prediction word processing and keyboard modification for the physically disabled are some of the possibilities.

RANCHO LOS AMIGOS MEDICAL CENTER: Patients of Rancho Los Amigos Medical Center in Downey may attend college courses at the facility. In addition to assistance in the basic skills of reading, writing and computation, instruction in multi-clerical skills is available. The sessions are held four days per week throughout the year and may be entered at any time. The satellite campus at Rancho is designed for students who are inpatients or outpatients of Rancho.

STUDENT INSURANCE

Applications for voluntary insurance may be obtained in the Student Health and Wellness Center, Student Activities Office, and Business Services Office.

STUDENT I.D. CARD

It is imperative that all students be in possession of their student identification card at all times while on the Cerritos College campus. This card is necessary for “buy-backs” in the College Bookstore and it is important to present if library privileges are to be enjoyed.

An I.D. card can be obtained from the Student I.D. Center which is located between the Food Court and the College Bookstore at any of the following times:

Regular Hours

During fall and spring semesters, 9:00 a.m. to 7:00 p.m., Monday through Thursday, and from 9:00 a.m. to 1:00 p.m. on Friday. During summer sessions, 9:00 a.m. to 1:00 p.m., Monday through Thursday.
The bookstore is open from 7:30 a.m. to 7:00 p.m. Monday through Thursday, and from 7:30 a.m. to 2:00 p.m. on Friday. Closed Saturdays and Sundays. Special store hours are in effect during the beginning of classes, graduation, and other special events. Please call the bookstore at (562) 860-2451, Ext. 2462 for further information.

**BOOKSTORE REFUND POLICY**

A corresponding, dated, cash-register receipt must accompany the return or exchange item in order for a refund or exchange to be authorized.

New Textbooks - may be returned for a refund within fifteen (15) calendar days of the start of classes each (18 week) term, provided books are unused, in new saleable condition, with no markings or any kind. For each short term (15-9-6 week) books must be returned during the first seven (7) calendar days.

Used Textbooks - may be returned for a refund within fifteen (15) calendar days of the start of classes each (18 week) term. For each short term classes (15-9-6 week) it is the first seven (7) calendar days.

Trade Books - may be refunded within five (5) calendar days of purchase if defective at the time of purchase.

Non-Book Merchandise - Supplies, clothing, computer software, cards, gifts, and sundries may be refunded within 24 hours provided merchandise is not soiled, damaged or showing signs of use; was not purchased with a sales discount; was not imprinted for customer; and, is returned in original sales wrapper. Special Orders - may not be returned for refund.

**STORE HOURS**

The bookstore is open from 7:30 a.m. to 2:00 p.m. on Friday. Closed Saturdays and Sundays. Special store hours are in effect during the beginning of classes, graduation, and other special events. Please call the bookstore at (562) 860-2451, Ext. 2462 for more information.

**FOOD SERVICES**

A food court and cafeteria are located in the Student Center. The food court is open Monday through Friday from 7:20 a.m. to 8 p.m.; the Cafeteria is open 11:00 a.m. to 1:00 p.m. Monday through Thursday during the fall and spring semesters. Vending machine service is provided at the north west corner of the Liberal Arts building and northwest of the Institute for Lifelong Learning building. Vending machines are located throughout the campus.

**INTRAMURALS**

An active intramural program is provided for Cerritos students and all students are encouraged to make use of the extensive sports facilities on campus.

**RE-ENTRY RESOURCE PROGRAM**

The Re-entry Resource Program assists adults returning to school make a smooth transition, overcome barriers unique to returning adults, and successfully attain their college goals and objectives.

Services include personal assistance, orientations, workshops based on re-entry student issues, support groups, and information regarding child care, financial aid, career counseling, job placement and community resources. Re-entry students of varied ages find these services relevant to their needs and interests.

The Re-entry Resource Program is located in the Career Services Center and is open Monday through Thursday, 8:00 A.M. to 8:00 P.M.; and Friday, 8:00 A.M. to 4:30 P.M. Call (562) 860-2451, Ext. 2362 for more information.

**TRANSFER CENTER**

The Transfer Center is designed to increase the transfer rate of Cerritos College students to four-year colleges and universities. The Transfer Center has been charged with the responsibility to give priority to underrepresented students. The Transfer Center provides information on transfer programs, general education requirements, advising, and personal contact with representatives from colleges and universities. The Transfer Center is located in the Administration building and office hours are 8:00 A.M. to 8:00 P.M., Monday through Thursday, and 8:00 A.M. to 4:30 P.M. on Friday. Call (562) 860-2451, Ext. 2154, for further information.
CALWORKS
The CalWORKS program at Cerritos College exists to assist students who are receiving Temporary Assistance for Needy Families (TANF). The program provides counseling and educational planning, referrals to campus and community-based organizations, up-to-date information regarding Welfare Reform rules and their impact on students, job search assistance, childcare agency referrals, and post employment services. For eligible students, the CalWORKS program also provides payment for childcare during class and work hours. For more information about the CalWORKS program, or to find out if you are eligible for paid childcare, please call (562) 860-2451, ext. 2356 and make an appointment with a CalWORKS counselor.

CHILD DEVELOPMENT CENTER
A Nationally Accredited, State Licensed Child Development Center is available for children, ages 2 years, 9 months through Kindergarten. Its purpose is to provide an educational program which helps the individual child grow to his/her fullest potential. The Center focuses on developmentally appropriate activities to foster respect for cultural diversity by providing multicultural, anti-bias, and non-sexist activities in curriculum. The program features Sensory Development, Language Art, Math, Science, Dramatic Play, Art, Music, Fine and Gross Motor Development, and Social Studies. Registration for the Center takes place each semester on a first-come, first-served basis. All space available, age of child, and readiness for group care. Physical examination and T.B. test must be available at time of enrollment and cannot be over one year old. Current, up-to-date Immunization Records must also be available. Students interested in these services should contact the Child Development Center at (562) 467-5051 or 860-2451, Ext. 2583.

LIBRARY/LEARNING RESOURCE CENTER
The Cerritos College Library/Learning Resource Center (LRC), located near the center of the campus, provides a wide range of materials and services. Both students and district residents are invited to use the Center and apply for a library card. Disabled students have easy access throughout the building via ramps and elevators. Patrons enjoy ready access to over 70,000 books, 2,000 pamphlets, 400 magazine and newspaper subscriptions, and 3,500 microfilm reels in an open stack arrangement. The automated catalog provides access to the Internet and online access to over 3,200 periodicals and journals. All library materials are carefully selected by classroom faculty and library faculty as integral resources to the Cerritos College instructional program. The Reserve Book Area, at the circulation desk, permits students to check out high-demand materials for limited periods of time. A wide range of informational flyers on such topics as using the card catalog, periodical indexes, and reference materials are available without charge. Copies of Library produced bibliographies and pamphlets are also provided to faculty. The Library provides typewriters for patron use. Computers available for student use can be found on the lower level of the LRC in LC 102. Photocopying is located in the Library for self-service copying.
Instructional Media Services, also located on the lower level, provides instructional support for the entire campus as well as satellite locations. Included in this area are graphic art and photography production studios, an audio-video production studio, a film booking and video tape center, facilities for maintenance and repair of audio-visual equipment, and an equipment booking and delivery center. Instructional Media also maintains and supervises several video production and closed circuit video systems on the campus, including Speech, Cosmetology, Dental Assisting, and Health Occupations.

The Independent Study Center (LC-114), located on the lower level of the LRC, houses several thousand audio and video tapes, filmstrips, slides, and other media materials for student use. A computer assisted attendance system permits rapid check-in and check-out by students. All areas of the Library/LRC are staffed with qualified personnel eager to help you. The facility is open during the regular school year Monday through Thursday, 8 a.m. to 10 p.m., Friday, 8 a.m. to 4:30 p.m. The Library is also open 9 a.m. to 3 p.m. on Saturday.

LEARNING ASSISTANCE PROGRAM
The Learning Assistance Program is a campus support system designed to provide services and information to students who want to acquire, improve, review, or maintain personal learning skills. The Learning Assistance Program (LAP) has a centralized location where students can go to develop learning skills that will improve their efficiency and effectiveness in the classroom. The program's information referral system connects students with all campus learning assistance programs, services, personnel, and materials, enabling students to learn more in less time with greater ease and confidence. The Learning Assistance Program includes tutorial services, supplemental instruction, The Survey of Reading and Study Efficiency, open lab facilities, and learning skills workshops. All services are free to Cerritos College students. The Learning Assistance Program is housed in the Learning Resource Center. Please call (562) 860-2451, Ext. 2404 or 2405 for office hours.

DIRECTORY INFORMATION
Cerritos College will not release personally identifiable data about students without their prior written consent except to persons and agencies authorized by law. The College may make an exception to this, in response to legitimate inquiries, by providing general directory information to include: Name * Date and Place of Birth * Major Field of Study * Class Level * Dates of Attendance * Degrees and Awards Received * Previous Educational Institutions Attended * Participation in Officially Recognized Activities and Sports * Weight and Height of Members of Athletic Teams.
Currently enrolled students may withhold directory information by notifying the Vice President of Student Services, in writing each term, within two weeks after the first day of instruction. Title 5 (California Administrative Regulations) Section 54626.

CONSENT
Cerritos College may permit access to student records to any person for whom the student has executed written consent specifying the records to be released and identifying the party or parties to whom the records may be released. Such consent must be signed and dated by the student. The recipient must be notified that the transmission of the information to others is prohibited. Title 5 (California Administrative Regulations) Section 54616.

SEXUAL ASSAULT AND ACQUAINTANCE RAPE POLICY
Cerritos College is committed to providing a safe and secure environment for all members of the campus community. The Sexual Assault and Acquaintance Rape policy is in accordance with Assembly Bill 3098 and Section 201, Public Law 101-542 as amended by Public Law 102-26. Sexual assault and acquaintance rape are crimes and will be treated as such. Students and employees who become victims of sexual assault or acquaintance rape are encouraged to report the crime immediately to the Campus Police. The
It is the policy of the Cerritos Community College District to provide an educational, employment and business environment free of unwelcome sexual advances, requests or offers for sexual favors, and other verbal or physical conduct or communications constituting sexual harassment, as defined and otherwise prohibited by federal and state statutes.

The President-Superintendent shall provide regulations and procedures for implementation of this policy and such regulations and procedures shall be included as a part of the District’s Affirmative Action/Staff Diversity Program.

It shall be a violation of this policy for anyone who is authorized to recommend or take personnel or academic actions affecting an employee or student, or who is otherwise authorized to transact business or perform other acts or services on behalf of the Cerritos Community College District, to engage in sexual harassment as defined below.

Sexual harassment occurs when unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature takes place and:
1. Is made explicitly or implicitly a term or condition of an individual’s educational status or employment; or
2. Is used as a basis for educational or employment decisions affecting such individual; or
3. Has the purpose or effect of unreasonably interfering with an individual’s work performance or creating an intimidating, hostile, or offensive educational or working environment; or
4. Is used as the basis for any decision affecting the individual regarding benefits and services, honors, programs, or activities available at or through the District.

For the purpose of further clarification, sexual harassment includes but is not limited to:
1. Making written, verbal, physical and/or visual contact with sexual overtones:
   a. written examples include but are not limited to suggestive or obscene letters, notes, or invitations.
   b. verbal examples include but are not limited to derogatory comments, slurs, jokes, epithets and/or promulgating sexual rumors.
   c. physical examples include but are not limited to assault, touching, impeding or blocking movement.
   d. visual examples include but are not limited to leering, gestures, or display of sexually suggestive objects, pictures, cartoons or posters.
2. Continuing to express sexual interest after being informed that the interest is unwelcome. (Reciprocal attraction is not considered sexual harassment.)
3. Making reprisals, threats of reprisals, or implied threats of reprisals following a negative response. For example:
   a. within the work environment - either implying or actually withholding support for an appointment, promotion, or change of assignment, suggesting a poor performance report will be prepared, or suggesting probation will be failed.
   b. within the educational environment - either implying or actually withholding grades earned or deserved, suggesting a poor performance evaluation will be prepared, or suggesting a scholarship recommendation or college application will be denied.

4. Within the work environment, engaging in implicit or explicit coercive sexual behavior which is used to control, influence, or affect the career, salary, and/or work environment of another employee. Within the educational environment, engaging in implicit or explicit coercive sexual behavior which is used to control, influence, or affect the educational opportunities, grades, and/or learning environment of a student.
5. Offering favors or educational or employment benefits, such as grades or promotions, favorable performance evaluations, favorable assignments, favorable duties or shifts, recommendations, reclassifications, etc. in exchange for sexual favors.

It shall also be a violation of this policy for any employee to sexually harass another employee.

Formal complaints under this policy shall be processed through the District’s Investigation and Resolution of Complaints of Unlawful Discrimination procedure through the Manager of Employment Services/Faculty and Staff Diversity Officer and the President-Superintendent.
Honors and Awards

The Associated Students offers a number of honors and awards to students for outstanding leadership, service, and academic achievements.

**ALPHA GAMMA SIGMA**

Alpha Gamma Sigma is a statewide honor scholarship society. The fundamental purpose of the organization is to promote and maintain scholastic and social leadership. The following types of membership are available:

**INITIAL MEMBERSHIP** A person may attain initial membership if he/she has completed 12 semester (or quarter equivalent) units in a maximum of 3 semesters or 5 quarters at any recognized institution of higher education and has a cumulative grade point average of 3.0. No units acquired more than two years prior to application for initial membership shall be used prohibitively.

**TEMPORARY MEMBERSHIP** All life members of the California Scholarship Federation and those who graduated with a minimum G.P.A. of 3.5 at the high school level shall be invited to become temporary members during their first semester in a community college and shall have, upon payment of dues, all the privileges of membership except that of holding a state elective office.

**CONTINUING MEMBERSHIP** An initial member may attain continuing membership by:

a. Achieving for the previous semester or quarter not less than a 3.0 G.P.A. in courses of recognized college standing, OR
b. Maintaining a cumulative G.P.A. of 3.0 or better in courses of recognized college standing,
c. Continuing members will receive one semester or quarter’s grace for every semester or quarter of earned continuing membership if the member’s G.P.A. falls below 3.0. There shall be no two consecutive grace periods.

**PERMANENT MEMBER** A permanent member is any person who has completed a minimum of 60 semester units or quarter equivalent units of college courses, with a minimum 30 units completed at a community college. A member must apply for permanent membership and meet either of the following requirements:

- A person who has maintained a cumulative G.P.A. of 3.5 or better in all recognized college work and has been a member of AGS, Inc., for at least one term.
- A continuing member who has maintained a cumulative G.P.A. of 3.25 or better in all recognized college work and has been a member of AGS, Inc., for at least two terms.

Any courses completed two years or more prior to application for permanent membership, whether at a community college or other institution, shall not be used to prohibit any person from becoming a permanent member, provided that these units not be used to meet the minimum requirement of 60 semester units.

**DEAN’S LIST**

Full-time students with 12 units earned or more of college-level courses in a single semester and who achieve a 3.5 grade point average or higher within those units earned will qualify for the Dean’s List.

**HONOR GRADUATES**

The honor graduates are identified by the silver tassel they wear on their cap. Graduates who achieved a 3.3 to 3.69 grade point average will graduate “With Honors.” Those receiving a 3.70 to 4.0 will graduate “With Highest Honors.”

Only units earned at Cerritos College may be used in computing the grade point average for honor graduates. To be considered for honor status a minimum of 24 units must be earned at Cerritos College. If you are a Spring or Summer graduate, your honors for Commencement are based on your GPA up to and including the previous Fall semester.

**ACTIVITY AWARDS**

The Associated Students recognizes and rewards various activity groups on campus, such as: Intercollegiate athletics, Band, Forensics, Talon Marks, Wings Magazine, Theatre, Choir, Song and Yell Squad and Honor Society. In addition to these, clubs and organizations are also recognized and honored for their service and participation in the various programs.

**ATHLETIC AWARDS**

The Associated Students of Cerritos College has an excellent athletic awards system for all intercollegiate athletics. This recognition is in the form of banquets, letters, certificates, key chains, plaques, lifetime passes, and watches/rings for State Championships.

**ACADEMIC EXCELLENCE AWARDS**

The Cerritos College Foundation annually sponsors an awards program for those students selected for outstanding academic achievement from the various subject matter areas on campus.

Academic honors are awarded to students who do outstanding work in their major field of study. Students must show promise, possess a current Associated Student Body card, have above average grades, and be recommended by the instructors in their major field.

**RETENTION AWARDS PROGRAM**

For details see page 15.
Student Financial Aid

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

Financial Aid awards are based on calculated need as determined by the Free Application for Federal Student Aid (FAFSA).

The Financial Aid Office is part of the Student Affairs department and is located in the Administration building. Office hours are Monday and Tuesday, 10 a.m. - 2:00 p.m.; Wednesday and Thursday, 10:00 a.m. - 6:30 p.m., and Friday, from 9:00 a.m. - 12:00 noon.

Financial aid applications are available year round. Students applying for Federal financial aid must have a high school diploma or equivalent.

When applying for financial aid, students must submit official academic transcripts from ALL colleges/universities attended. These transcripts must be sent to the Office of Admissions and Records. Students need to have transcripts evaluated by the Counseling department. This should be requested at the beginning of the financial aid process. Without this information, it may delay the completion of a student’s file, or be cause to close a student’s file.

The Financial Aid Office will pay for units enrolled up to 70 degree applicable units. Once a student reaches the 70 unit level, a student is no longer eligible for financial aid. However, a student may appeal and submit a “lock-in-list” to the Financial Aid Advisory Committee (FAAC). Again, it is important to have ALL academic transcripts be sent to the college and evaluated as soon as possible because it may affect a student’s financial aid eligibility.

Students must take the Assessment Battery Test, complete the financial aid supplemental forms, and schedule an appointment with an academic counselor to prepare a pre-plan each semester. Students must also enroll in at least 6 units of courses recommended by their counselor, which leads to a certificate, associate degree, or transfer major. Also, a 2.0 cumulative grade point average must be maintained for all college work to be eligible for financial aid. All students on financial aid must meet the satisfactory academic standards outlined in the Financial Aid Satisfactory Academic Progress (SAP) Standard brochure.

Since the application process is a lengthy one, sometimes taking up to 3 months, students should plan ahead to have sufficient funds to cover enrollment fees, parking fees, student I.D., health services fees, books and supplies.

Pell Grant checks are mailed three times a semester to students. Disbursements will take place (approximately) the first, fourth, and twelfth week of the Fall and Spring terms.

For more details on financial aid, students are encouraged to contact the Financial Aid Office at (562) 860-2451, extension 2397, or stop by the office for more information.

FEDERAL PROGRAMS

Federal Pell Grants are awarded to eligible undergraduate students. The amount of money awarded is based upon a student’s Expected Family Contribution (EFC), the number of units enrolled, and the cost of attendance.

Approximately four weeks after a student has mailed his/her application, a Student Aid Report (SAR) should arrive at your home. This report MUST be submitted directly to the Financial Aid Office to initiate your file.

Federal Supplemental Educational Opportunity Grant (FSEOG) is a campus based program with limited funding. This program is awarded by the school for students who have an exceptional need and have an expected family contribution (EFC) of 0.

Federal Work-Study (FWS) is a campus based program with limited funding which provides employment to help pay for part of your educational costs. This program is based on financial need and, if awarded, is part of your financial aid award. Students on FWS may work up to 15 hours per week on or off campus. Students are assigned a work site by the FWS coordinator.

Federal Subsidized and Unsubsidized Stafford Loans are student loans, which must be repaid. Although these loans are made through lending institutions such as a bank, you MUST apply for financial aid first. Once a student receives a financial aid award letter, the student may apply for a student loan. The amount of loans range from $2,625 to $3,500 per academic year.

To be eligible for $3,500, a student must have at least 30 units completed and these units MUST appear on the student's official academic transcript record at Cerritos College. Loan amounts will be determined at the time the Financial Aid Office certifies a student’s loan application.

Both entrance/exit counseling are requirements of the Federal Family Educational Loan (FFEL) Program. Students must maintain at least half-time enrollment status to receive the funds. Once you have received your loan funds, you must maintain at least half-time enrollment to avoid going into repayment. You also must maintain reasonable progress toward your certificate or degree.

Any student who is interested in the second loan, the Stafford Additional Unsubsidized loan ($4,000), must be an independent student and appeal to the Financial Aid Advisory Committee (FAAC). Appeal forms are available at the Financial Aid Office. In reviewing a request for any loan, the Financial Aid Advisory Committee may use "professional judgement" to deny a student loan on a case-by-case basis. If denied a loan, a student will receive a letter from the Financial Aid Office indicating the reason(s) for the loan denial.

Please refer to the Student Loan Default Management Plan available at the Financial Aid Office for additional information, or Edfund’s On-Line Web site at http://www.edfund.org/home.html.

Bureau of Indian Affairs (BIA) is a grant provided to eligible American Indian students. To be eligible you must be at least one-fourth American Indian, Eskimo, or Aleut as certified by tribal agencies served by the Bureau of Indian Affairs. You must be enrolled or plan to enroll as an undergraduate student on a full-time basis, or meet the enrollment requirements set up by your tribe.

BIA grants are not awarded automatically. It is important that you apply early to meet the deadlines set by the BIA. You cannot apply directly through the Financial Aid Office. All BIA applicants must also complete the Application for Federal Student Aid. You must request the BIA Grant Application from your tribe.

STATE PROGRAMS

Cal Grants are State programs that offers three grants. Applications for the Cal Grant are available in January of each year and must be filed no later than the early March deadline date.

Cal Grant A awards are for students who plan to attend a four-year college or university and are based on academic achievement as well as financial need. You may apply for a Cal Grant A while you are attending Cerritos College. If you are awarded one, you may place it on reserve until you transfer to a four-year college. This grant is renewable for up to three years; provided you remain eligible. Cal Grant A pays all or a portion of tuition and fees at your designated four-year institution. Cal Grant A provides no funds for books, living costs,
transportation expenses and provides no funds for fees at the community college.

Cal Grant B awards assist middle and low income, first year college students with living expenses, books, supplies, transportation and other non-tuition costs. Renewal may cover tuition/fee costs. All new awards are limited to students who have completed no more than one full-time semester or 16 units. The average award at Cerritos College is approximately $1,400 per year.

Cal Grant C awards are for community college students only and assist low to middle income students with tuition and vocational training costs. You must be in a vocational study program that is four months to two years in duration. The average award at Cerritos College is approximately $530 per year. This grant is renewable for up to two or three years, provided you remain eligible.

Extended Opportunity Program and Services (EOPS) is a State funded program to provide educationally and economically disadvantaged students assistance, which includes grants, EOP nomination waivers, admission waivers to UC and CSU, and transfer assistance. Moreover, the EOPS Program provides a number of retention programs such as Supplemental Instruction (SI), and learning communities in the Achievement in Mathematics (AIM) program, and Summer Bridge program. All three programs involve social and academic integration activities for students outside of the classroom. Courses in these programs are taught by a faculty member and faculty counselor.

Admission into the EOPS Program requires that a student meet either BOGG A or B standard, complete an application form, enroll in 12 units, and meet with an EOPS counselor three times during each semester, and have earned less than 70 degree applicable units from ALL colleges/universities attended.

EOPS/CARE Grant is available to students who are current recipients of TANF/CalWORKs, single, head of household, have at least one child under the age of 14, enrolled in 12 units or more, and have been admitted into the EOPS Program. You are required to attend a Mini-Conference/Orientation and workshops and may be eligible for a grant and/or services.

Board of Governors Grant (BOGG) is a program that provides assistance to cover community college enrollment fees. To be eligible, you must be a California resident and must qualify under one of the following conditions:
1. You or your parents must currently be receiving Aid to Families with Dependent Children (AFDC), Supplemental Security Income (SSI) or General Relief. Documentation is required; or
2. You must meet income standards based on your family size. Documentation is required; or
3. You must have already applied for federal/state aid and demonstrate financial need.

SCHOLARSHIPS
Scholarships are like grants, they do not have to be repaid. The Financial Aid Office is the steward of a number of scholarships, which may or may not require financial need. Scholarships also vary in amounts from $50 - $500 per year. Applications are available in the Financial Aid Office.

OFFICE OF VETERANS AFFAIRS
The Office of Veterans Affairs offers information regarding applications and certification for benefits for those eligible for Montgomery G.I. Bill, New G.I. Bill-Selected Reserve, VEAP, Vocational Rehabilitation, or Survivors and Dependents of deceased or disabled veterans.

Staff are available to provide help with processing applications and do check inquiries to the Veterans Administration. Veterans must maintain district academic progress as outlined in the college catalog. In order to receive benefits, veterans must declare a major and will only be paid for classes required for that major.

Veteran Affairs Office service hours are determined on a semester by semester basis. Service hours are posted at the Veteran Affairs counter or students can call (562) 860-2451, extension 2104 for information. The Veteran Affairs Office is located in the Admissions and Records Office in the Administration building.
Associate in Arts Degree

Graduation Requirements

The California Community College Board of Governors has authorized the Cerritos College Board of Trustees to confer the Associate in Arts Degree. A candidate does not automatically receive the Associate in Arts Degree upon completion of unit and course requirements, but is required to file a petition for the degree.

College education is usually thought of as consisting of two parts, specialized education and general education. Specialized education is that which prepares the student for vocational competence or for scholastic attainment in a particular field. This the student accomplishes through the department major.

General education, on the other hand, is that which meets the common goals of all students for personal enrichment and cultural development. Work in this area helps the student increase individual ability as a citizen and improve community, home, and family living.

Although courses may be designed with one or the other of these purposes as the primary gain, all courses are presented with the values of general education in mind. College education then becomes the sum total of all the student's experience in college, and the student's education may be completed in both these areas and be granted the degree of Associate in Arts.

REQUIREMENTS FOR THE ASSOCIATE IN ARTS DEGREE:

SCHOLARSHIP AND RESIDENCE

A. A student must complete 60 units of degree applicable work with a grade point average of "C" or better (2.0) in all courses counted for the degree.
B. A student must achieve a grade point average of "C" or better (2.0) in all course work attempted that is counted for the major.
C. A minimum of 12 units of degree applicable work must be completed at Cerritos College.
D. The student must be in attendance for the semester in which the degree is earned. Exception to this requirement is by petition only.

PETITION FOR ASSOCIATE IN ARTS DEGREE

1. Students desiring an Associate in Arts Degree must file a "Petition for Associate in Arts Degree" form. The petition may be obtained in the Counseling Center and must be submitted before the deadline posted in the College calendar. The petition must be approved and validated by a counselor and the Admissions and Records Office before the degree will be granted.
2. The date on the degree will correspond to the year the degree is earned.
3. Students not in continuous attendance at Cerritos College must meet degree requirements for graduation in effect at the time of readmission.
4. A student is considered in continuous attendance if he/she receives a grade (A,B,C,D,F,CR,NC,I or W) in any semester, fall or spring, during each academic year. Continuous attendance is not broken at Cerritos College if a student transfers to another accredited institution, maintains his/her continuous attendance at that institution, and returns to Cerritos College to complete his/her degree. (Designated programs may require students to return to Cerritos College in good standing. Please check with the Counseling Center regarding these programs.)
5. Credit toward the Associate in Arts Degree is not granted for non-degree applicable units or classes taken as part of the Adult Education Program.
6. There will be a fee charged for any degree granted when the petition is filed after the established deadline.

STUDENTS WITH BACCALAUREATE DEGREES

Those students who have been awarded a bachelor's degree from an accredited college or university in the United States will be exempt from the Cerritos College general education breadth requirements should they pursue an associate in arts degree at this institution. Please see your counselor or the Dean of Academic Affairs if additional information or clarification is desired.

ADDITIONAL ASSOCIATE IN ARTS DEGREES

Once an A.A. has been obtained, no additional degree may be obtained in General Studies. An additional General-Divisional A.A. Degree may not be obtained if a specific degree has been awarded previously within the same division. Otherwise, a student may earn an additional A.A. Degree by meeting the following conditions:

1. Complete a minimum of seventy-eight (78) units - eighteen (18) degree applicable units beyond the minimum required for the first A.A. Degree. The minimum 78 units must meet the requirements in a different major curriculum. All general education requirements in effect at the time continuous attendance began must be met.
2. If some or all of the major curriculum requirements for the second A.A. Degree were met in the first A.A. Degree and the minimum seventy-eight (78) degree applicable units is not achieved, then additional courses will be planned with a counselor to make-up the difference as described in the procedures. The general education requirements must be met which were in effect at the time continuous attendance began.
3. Upon completion of the required course work, follow the "Petition for Graduation" procedures as detailed for the first A.A.
4. Additional A.A. Degrees may be granted for each eighteen (18) degree applicable additional units completed. For example a third A.A. degree may be earned upon the completion of a minimum of ninety-six (96) units. The requirements to obtain additional degrees are the same as those stated above for a second A.A. Degree.

COMMENCEMENT

Commencement exercises are held once a year at the end of the Spring Semester for all students—including those who were graduated at midyear, those graduating at the end of the Spring Semester, and those who expect to complete requirements for graduation in the Summer Session.

All graduating students are encouraged to participate in the Commencement ceremony which honors their industry and achievement.

CERTIFICATES OF ACHIEVEMENT

Cerritos College is authorized to award a Certificate of Achievement to any student who satisfactorily completes an organized curriculum designed for a specific occupational goal. In order to obtain a Certificate, a student must satisfy the following requirements:
1. Complete the course requirements for the chosen program of study as detailed in the "Programs of Study" section of this catalog.
2. Maintain a minimum grade point average of "C" (2.0) in all required courses, including a GPA of 2.0 for all departmental courses specified, as well as a 2.0 for all courses outside the major designated as requirements in the curriculum pattern.
3. A minimum of twelve (12) units of course work within the certificate must be taken at Cerritos College if Certificate of Achievement is to be awarded by this institution.
4. Upon completion of required course work, file a “Petition for Certificate of Achievement” form. The petitions are available in the Counseling Center.

5. Units earned toward the Certificate of Achievement may be applied toward an Associate in Arts Degree.

6. Credit toward the Certificate of Achievement is not granted for classes taken as part of the Adult Education Program.

**COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)**

The College Entrance Examination Board (CEEB) offers General and Subject Examinations through the College Level Examination Program (CLEP). The General Examinations measure college-level achievement in five general areas and the material covered is comparable to general education courses at the college freshman and sophomore levels. You may satisfy a significant portion of your general education requirements towards the associate in arts degree through CLEP General Examinations. Cerritos College will grant a corresponding number of units of credit for each general examination on which a student scores 500 or higher.

The College Level Examination Program is designed to be a means through which recognition, academic credit, and placement may be given for less conventional forms of educational experience. Those who may have reached a college-level of education through home or correspondence study, on-the-job training, telecourses, military service or other means may take the CLEP examinations which are offered by the College Entrance Examination Board.

A residency of 12 units of satisfactory work must be completed at Cerritos College prior to granting of credit under this program. A maximum of 30 units of credit via CLEP may be credited toward the associate in arts degree.

You may not use CLEP to improve a previous grade earned in a course. No credit may be earned by CLEP for any course in which the student has already received a grade.

CLEP credit posted to another institution’s transcript is reevaluated based on Cerritos College’s standards. Evaluations made and credit allowed by Cerritos College are subject to review and evaluations by any college or university to which the student may later transfer.

Repeating a CLEP examination is governed by a six-month waiting period.
Associate in Arts Degree
Unit Requirements For Graduation
2000-01

A total of 60 degree applicable units including the following requirements must be completed to qualify for the A.A. degree:

1. MAJOR PROGRAM REQUIREMENTS:
   Complete all requirements for the chosen major program under “Major Requirements” in the Cerritos College Catalog. For a "General" Division major, 18 units are required.

2. MATHEMATICS PROFICIENCY REQUIREMENT:
   This requirement can be met by one of the following options:
   a. Earn a score on the Intermediate Algebra Readiness test sufficient for placement in a course above the level of MATH 60 or
   b. Completion of MATH 60, CIS 52 or TM 50 with a grade of Credit or "C" or higher,
   c. For other options, see your counselor

3. READING PROFICIENCY REQUIREMENT:
   a. The reading proficiency requirement is demonstrated by successfully completing the Reading Proficiency Test at the 12th grade level. The Reading Proficiency Test may be taken no more than once each semester.
   b. The reading proficiency requirement may be met by completing READ 54 with a grade of "C" or better.
   c. For other options, see your counselor

4. WRITING PROFICIENCY REQUIREMENT:
   Completion of ENGL 52 or ENGL 155 or BCOM 147 with a grade of "C" or better, or completion of ENGL 100.

5. GENERAL EDUCATION REQUIREMENTS: 21-27 UNITS
   Complete the following course requirements as indicated.
   a. NATURAL SCIENCES AND HEALTH EDUCATION: 6 UNIT MINIMUM
      Select one course from two of the three groups listed below:
      (1) PHYSICAL SCIENCES
         Astronomy 101, 101L (LAB), 102, 103
         Chemistry 100 (LAB), 110 (LAB), 111 (LAB)
         Earth Science 101, 101L (LAB), 104, 106, 110 (LAB)
         Energy 110
         Geography 101
         Geology 101 (LAB), 110, 201 (LAB), 204, 207 (LAB), 209 (LAB)
         Physical Science 100
         Physics 50 (LAB), 100 (LAB), 101 (LAB), 201 (LAB)
      (2) BIOLOGICAL SCIENCES
         Anatomy and Physiology 120 (LAB), 130 (LAB), 200 (LAB)
         Anthropology 115
         Biology 105, 110 (LAB), 115 (LAB), 120 (LAB), 201 (LAB)
         Botany 120 (LAB)
         Microbiology 200 (LAB)
         Psychology 241
         Zoology 120 (LAB)
      (3) HEALTH EDUCATION
         Health Education 100
   b. SOCIAL AND BEHAVIORAL SCIENCES: 3-9 UNITS
      Select one course from each of the groups listed below:
      Examination Option. The History and Political Science requirements may be satisfied by proficiency examinations. If both exams are passed, the student is required to select three units from b-3 below.
      NOTE: Completion of a U.S. history or government course which fulfills the California State University requirement taken at any accredited institution may be used in lieu of the course requirement.
      (1) History 101, 201, 202, 220, 221
      (This requirement can be met by successfully passing the departmentally administered and evaluated proficiency examination for American History, or receiving a score of 3 or better on the Educational Testing Services' Advanced Placement Exam, American History, or the Education Testing Services' College Placement Test, American History and Social Studies. Unit credit is awarded for passing the AP exam option. Unit credit is not awarded for the departmental exam and only applies to the A.A. degree.)
      (2) Political Science 101 or 201
      (This requirement can be met by successfully passing the departmentally administered and evaluated proficiency examination for American Government or the Educational Testing Services Advanced Placement exam with a score of 3 or better. Unit credit is awarded for this option. Unit credit is not awarded for passing this department exam option.)
      (3) Administration of Justice 101
         Anthropology 100, 120, 200, 201, 202, 203
         Child Development/Early Childhood 113
         Counseling and Guidance 200
         Economics 101, 201, 202, 204
         Geography 102, 105, 257
         Political Science 110, 210, 220
         Psychology 101, 150, 251, 261
         Sociology 101, 110, 120, 201, 210, 215, 225, 230, 250
         Speech 110
   c. FINE ARTS AND HUMANITIES: 6 UNIT MINIMUM
      Select one course from each of the groups listed below:
      (1) FINE ARTS
         Architecture 110, 112
         Art 100, 101, 102, 103, 106, 107, 110
         Journalism 100
         Music 100, 102, 103, 104, 105
         Photography 100
         Physical Education 191
         Theatre 101, 102, 103, 104, 150, 151, 152, 159
      (2) HUMANITIES
         French 101, 102, 201, 202
         German 101, 102, 201, 202
         Humanities 100, 104
         Japanese 101, 102, 201, 202
         Philosophy 100, 102, 104, 200, 201, 204, 206
         Spanish 101, 102, 111, 112, 201, 202, 206, 210, 245
         Speech 140, 145
d. LANGUAGE AND RATIONALE: 6 UNIT MINIMUM
Select one course from each of the groups listed below:

(1) ENGLISH COMPOSITION
   English 52, 100, 155
   Business Communication 147

(2) COMMUNICATION AND ANALYTICAL THINKING
   Business Communication 148
   Computer and Information Sciences 52, 101, 102, 103, 177, 178
   Drafting 131
   English 103
   Mathematics 60, 70, 80, 80A, 100, 101, 102, 110A, 110B, 112,
   114, 115, 116, 140
   Philosophy 106, 202
   Psychology 103, 210
   Reading 200
   Speech 60, 100, 120, 130, 132, 235, 271
   Technical Mathematics 50

NOTE: The preceding graduation requirements apply to students who were in attendance during the 2000-01 school year and thereafter. Students who enrolled prior to Fall 2000 and who have maintained continuous attendance at Cerritos College have the option of meeting the current requirements or those in effect at the time continuous attendance began.
Transfer Requirements

Students planning to transfer to a four-year college or university should bear in mind that admission and subject requirements will vary from school to school. Consequently, students planning to transfer should study carefully the requirements set forth in the catalogs and brochures of the institutions which interest them. Such publications may be obtained directly from the colleges and universities. Also, a large collection of such publications are available in the Transfer Center. In addition to offering transfer information to public and private colleges and universities statewide and national, we are continuing our efforts to obtain articulation agreements for transferring to Historically Black Colleges and Universities (HBCU’s). To assure that appropriate transfer course work is being undertaken at Cerritos College, students should plan to communicate regularly with the counseling staff.

THE CALIFORNIA STATE UNIVERSITY

High School Preparation and Admission Requirements

Freshman Requirements — You will qualify for regular admission as a first-time freshman if you

1. are a high school graduate,
2. have a qualifiable eligibility index, and
3. have completed with grades of “C” or better the courses in the comprehensive pattern of college preparatory subject requirements.

Subject Requirements — The California State University requires that first-time freshman applicants complete, with grades of “C” or better, a comprehensive pattern of college preparatory study totaling 15 units. A “unit” is one year of study in high school.

- **English**, 4 years
- **Mathematics**, 3 years: algebra, geometry, and intermediate algebra
- **U.S. History or U.S. History and government**, 1 year
- **Science**, 1 year with laboratory: biology, chemistry, physics, or other acceptable laboratory science
- **Foreign language**, 2 years in the same language (subject to waiver for applicants demonstrating equivalent competence).
- **Visual and performing arts**, 1 year: art, dance, drama/theater, or music.
- **Electives**, 3 years: selected from English, advanced mathematics, social science, history, laboratory science, foreign language, visual and performing arts, and agriculture.

TRANSFER REQUIREMENTS

Lower Division Transfer Requirements — If you have completed fewer than 56 transferable semester (84 quarter) units, you will qualify for admission if you have a grade point average of 2.0 (C) or better in all transferable units attempted, and are in good standing at the last college or university attended, and meet the admission requirements for first-time freshmen. If you did not complete all the subject requirements in high school, appropriate college courses may be used to make up the missing subjects.

Upper Division Transfer Requirements — If you have completed at least 56 transferable semester (84 quarter) units, you have a grade point average of 2.0 (C) or better in all transferable units attempted (nonresidents must have a grade point average of 2.4), and are in good standing at the last college or university attended, you may become eligible one of two ways:

1. You have completed at least 30 semester (45 quarter) units of college courses with a grade of C or better in each course to be selected from courses in English, arts and humanities, social science, science and mathematics at a level at least equivalent to courses that meet general education requirements. The 30 semester (45 quarter) units must include all of the general education requirements in communication in the English language (at least 9 semester or 12 quarter units to include written communication, oral communication, and critical thinking) and mathematics (at least 3 semester or 4 quarter units) or, if completing the Interssegmental General Education Transfer Curriculum, English communication (at least 9 semester or 12 quarter units in English composition, oral communication, and critical thinking) and the requirement in mathematics (at least 3 semester or 4 quarter units).

2. You have completed all subject requirements required for first-time freshmen. If you did not complete all the subject requirements in high school, appropriate college courses may be used to make up the missing subjects.

For upper division transfers seeking admission to the fall term 2000 or later, the second option will not be available to establish eligibility for admission. All applicants with 56 or more transferable semester (84 quarter) units will be required to have completed at least 30 semester units of courses at a level equivalent to courses that meet general education requirements. The 30 semester units must include all of the general education requirements in communication in English language (3 courses) and at least the three semester units (typically 1 course) required in mathematics.

Applicants who graduated from high school in 1987 or earlier who have not completed the subject requirements in (1) and (2) above should contact the admission office at the campus to which they plan to submit an application for admission to inquire about alternative admission programs.

Test Scores — Freshman and transfer applicants who have fewer than 56 semester or 84 quarter units of transferable college credit must submit scores, unless exempt, from either the Scholastic Aptitude Test (SAT) of the College Board or the American College Testing Program (ACT). If you are applying to an impacted program and are required to submit test scores, you should take the test no later than December if applying for fall admission.

Registration forms and dates for the SAT or ACT are available from school or college counselors or from a campus testing office. Or you may write to:

- The College Board (SAT) American College Testing Program (ACT)
- Registration Unit, Box 592 Registration Unit, P.O. Box 168
- Princeton, New Jersey 08541 Iowa City, Iowa 52240

TOEFL Requirement — All undergraduate applicants, regardless of citizenship, who have not attended schools at the secondary level or above for at least three years where English is the principal language of instruction must present a minimum score of 500 or above on the Test of English as a Foreign Language. Some campuses may require a score higher than 500.

Transcripts — Final official transcripts must be submitted prior to enrollment to verify that all required coursework has been completed successfully. CSU campuses will either delay admission or not permit registration or attendance until receipt of final transcripts.
Freshman: The campus to which you are applying will provide information about when to submit your official high school transcript. Transcripts must be received in sealed envelopes directly from the high school from which you graduated.

Transfers: Request that official transcripts be sent directly from all colleges or universities previously attended even if no coursework was completed. Transcripts must be received in sealed envelopes from each institution attended. You should keep personal copies of all transcripts and test scores to complete the admission application and for academic advising sessions.

General Education Requirements for the Bachelor's Degree at the California State University

The California Administrative Code, Title 5, relating to the State University general education-breadth requirements authorizes Cerritos College to present to the students a maximum 39-unit pattern of general education courses which is acceptable for the Bachelor Degree requirements at the State University.

Cerritos College is further authorized to certify the partial or complete fulfillment of these requirements.

Students may elect to fulfill the general education requirements by following the Cerritos College pattern or the pattern specified by the State University of their choice.

Students in all major fields of study must complete the same pattern of general education requirements. It is strongly recommended that students complete as many units of these requirements as possible during their freshman and sophomore years at Cerritos College so that they can concentrate on major specialization in the upper division.

In general, four-year colleges accept at full unit value approved transfer courses completed with satisfactory grades in the public Community Colleges of the state. However, in most instances a maximum of 70 community college semester units (105 quarter units) can be transferred for credit toward a degree at the senior institution.

STATE UNIVERSITY GENERAL EDUCATION CERTIFICATION REQUIREMENTS

A maximum of 39 units is required to fulfill the CSU lower division general education requirements, with the units to be distributed as follows: Nine (9) units in Area A; nine (9) units in Areas B, C and D, with no more than 30 units total in areas B through D combined; and three (3) units in Area E.

A letter grade of "C" or better is required in Oral Communication, Written Communication, Critical Thinking, and Mathematical Concepts.

A. COMMUNICATIONS: 9 units minimum.
Must choose one course from category 1; take one course in category 2 and choose one course from category 3.
1. ORAL COMMUNICATION
   - Speech 100, 120, 130, 132
2. WRITTEN COMMUNICATION
   - English 100
3. CRITICAL THINKING
   - English 103, Philosophy 106, 202, Psychology 103, Speech 235

B. NATURAL SCIENCE AND MATHEMATICS: 9 units minimum.
Choose one course from category 1, one course from category 2 and one course from category 3. AT LEAST ONE LABORATORY (LAB) MUST BE INCLUDED IN CATEGORY 1 or CATEGORY 2.
1. PHYSICAL SCIENCES
   - Astronomy 101, 101L (LAB), 102, 103
   - Chemistry 100 (LAB), 110 (LAB), 111 (LAB)
   - Earth Science 101, 101L (LAB), 104, 106, 110 (LAB)
   - Energy 110
   - Geography 101
   - Geology 101 (LAB), 110, 201 (LAB), 204, 207 (LAB), 209 (LAB)
   - Physical Science 100
   - Physics 100 (LAB), 101 (LAB), 201 (LAB)

2. BIOLOGICAL SCIENCES
   - Anatomy and Physiology 120 (LAB), 130 (LAB), 200 (LAB)
   - Anthropology 115
   - Biology 105, 110 (LAB), 115 (LAB), 120 (LAB), 200 (LAB)
   - Botany 120 (LAB)
   - Microbiology 200 (LAB)
   - Psychology 241
   - Zoology 120 (LAB)

3. MATHEMATICAL CONCEPTS
   - Psychology 210

C. FINE ARTS AND HUMANITIES: 9 units minimum.
Choose at least one course from category 1, and at least one course from category 2.
1. FINE ARTS
   - Architecture 112
   - Art 100, 101, 102, 103, 106, 107, 110
   - Music 100, 102, 103, 104, 105
   - Photography 100
   - Physical Education 191
   - Theatre 101, 102, 103, 104, 150, 151, 152, 159

2. HUMANITIES
   - French 101, 102, 201, 202
   - German 101, 102, 201, 202
   - Humanities 104
   - Japanese 101, 102, 201, 202
   - Philosophy 100, 102, 104, 200, 201, 204, 206
   - Spanish 101, 102, 111, 112, 201, 202, 206, 210
   - Speech 140

D. SOCIAL SCIENCES: 9 units minimum.
Choose one course from category 1, one course from category 2, and one course from category 3.
1. AMERICAN HISTORY
   - History 101, 201, 202, 220, 221
   - (Any one of these courses meet the requirement in U.S. History)

2. AMERICAN GOVERNMENT
   - Political Science 101, 201
   - (Either of these courses meet the requirement for Constitution and American Ideals)

3. SOCIAL, POLITICAL, HISTORICAL AND ECONOMIC INSTITUTIONS
   - Administration of Justice 101
   - Anthropology 100, 120, 203
   - Economics 101, 201, 202, 204
   - Geography 102, 105, 257
   - History 110, 120, 210, 230, 240, 241, 245, 250, 257, 260, 265
   - Political Science 110, 210, 220
   - Psychology 101, 251, 261
   - Sociology 101, 201, 210, 215, 230
   - Speech 110
E. SELF-DEVELOPMENT: 3 units minimum
Choose one course from the following:
  Counseling and Guidance 200
  Health Education 100
  Physical Education 141
  Psychology 150
  Sociology 110, 120

NOTE: Changes in the above General Education requirements may occur from time to time. If courses are added to, or deleted from, the pattern, this may affect a student’s selection of courses. Students do not have catalog rights to a certification pattern, regardless of their continuous attendance status.
Please consult a counselor for any changes which may have occurred from time to time. If courses are added to, or deleted from, the list satisfy the requirements of a particular degree objective permits.

TRANSFERABLE COURSES TO THE CALIFORNIA STATE UNIVERSITIES

In compliance with Title 5 of the California Administrative Code, the following courses have been certified by Cerritos College as being transferable to any campus of the California State University.

The transfer institution, however, will determine whether courses from the list satisfy the requirements of a particular degree program or will be acceptable as general electives to the extent that the particular degree objective permits.

Students are urged, therefore, to refer to the courses listed under the General Education Requirements for the Bachelor’s Degree, and to the lower division requirements for their major program.


Applications from California high schools: To be acceptable to the University, the courses must appear on a list certified by your high school principal as meeting the University's admissions requirements. Your counselor or principal will have a copy of this list.

a. History: 1 year required.
   One year of United States history or one-half year of United States history and one-half year of civics or American government.

b. English: 4 years required.
   Four years of college preparatory English which include frequent and regular writing, and reading of classic and modern literature, poetry, and drama. Not more than two semesters of 9th grade English can be used to meet this requirement.

c. Mathematics: 3 years required, 4 recommended.
   Three years, including elementary algebra, geometry, and second-year (advanced) algebra. Math courses taken in the 7th and 8th grades may be used to fulfill part of this requirement if your high school accepts them as equivalent to its own courses.

d. Laboratory Science: 1 year required, 3 recommended.
   One year of a laboratory science, such as biology, chemistry, or physics, taken in the 10th grade or later.

e. Foreign Language: 2 years required, 3 recommended.
   Two years of the same foreign language. Courses should emphasize speaking and understanding, and include instruction in grammar, vocabulary, reading, and composition.

f. College Preparatory Electives: 4 years required.
   Four units (8 semesters), in addition to those required in "a-e" above, chosen from at least two of the following areas: history, English, advanced mathematics, laboratory science, foreign language (a third year in the foreign language used for the "e" requirement above, or two years of another foreign language), social science, and visual and performing arts. A 9th grade science course is an acceptable elective.

SCHOLARSHIP REQUIREMENT

The Scholarship Requirement defines the grade point average (GPA) you must attain in the "a-f" subjects to be eligible for admission to the University.

If your GPA is 3.3 or higher, you have met the minimum requirement for admission to the University. If your GPA is below 3.3 but above 2.77, you have met the minimum requirement if you achieve the college entrance test score indicated on the Eligibility Index.

The University calculates your GPA in the "a-f" subjects by assigning point values to the grades you earn, totaling the points, and dividing the total by the number of "a-f" course units. Points are assigned as follows: A 4 points, B 3 points, C 2 points, D 1 point, and F 0 points.

Only the grades you earn in "a-f" subjects in the 10th, 11th and 12th grades will be used to calculate your GPA. Courses you take in 9th grade can be used to meet the Subject Requirement if you earn a grade of "C" or better, but they will not be used to calculate your GPA.

HONORS COURSES

The University assigns extra points for up to four units of certified honors level and advanced placement courses taken in the last two years of high school: A5 points, B4 points, C3 points. D grades are not considered in these calculations and receive one point only.

The courses must be in the following "a-f" subjects: history, English, advanced mathematics, laboratory science, and foreign language, and they must be certified at your high school as offered at the honors level. In these fields, as well as in the fields of computer science, social science, and the visual and performing arts, courses that are designed to prepare students for an Advanced Placement

SUBJECT REQUIREMENT

To satisfy this requirement, you must complete the high school courses listed below with a grade point average defined by the Scholarship Requirement. This sequence of courses is also known as the "a-f" requirements.

You must take 15 units of high school courses to fulfill the Subject Requirement, and at least 7 of the 15 units must be taken in your last two years of high school. (A unit is equal to an academic year, or two semesters, of study.)
Examination of the College Board and college courses that are transferable to the University are acceptable honors level courses.

D AND F GRADES

D and F grades in the "a-f" courses must be repeated. In mathematics, foreign language, and chemistry only, a grade of C or better in more advanced coursework may validate D and F grades in earlier work. Consult with your counselor to determine how these grades can be improved and how the university will use them in evaluating your scholarship record.

Grades will not be used for repeated courses in which you initially earned a grade of "C" or better.

ELIGIBILITY INDEX

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1. ACT is scored in intervals of 1 point, from a minimum of 1 to a maximum of 35.
2. SAT is scored in intervals of 10 points, from a minimum of 400 to a maximum of 1600.

EXAMINATION REQUIREMENT

All freshman applicants must submit the following test scores:

One aptitude test, either the Scholastic Aptitude Test (SAT) or the American College Test (ACT). The verbal and mathematics scores on the SAT must be from the same sitting. The ACT composite score must be submitted.

Three College Board Achievement Tests (ACH), including English Composition, Mathematics Level 1 or Level 2, and one test in one of the following areas: English literature, foreign language, science, or social studies.

ADMISSION BY EXAMINATION ALONE

If you do not meet the Subject and Scholarship Requirements, you may qualify for admission to the University by examination.

To satisfy the minimum requirements for qualifying by examination alone, you must achieve a total score of 1100 or higher on the SAT, or a composite score of 26 or higher on the ACT. In addition, you must earn a total score of 1650 or higher on the three College Board Achievement Tests, with a minimum score of 500 on each test.

You cannot qualify for admission by examination alone if you have completed 12 or more units of transferable coursework at another college or university following high school graduation, or if you have taken transferable college courses in any subject covered by the College Board Achievement Tests.

NONRESIDENTS

The minimum freshman admission requirements for nonresidents of California are the same as those for residents except for the following:

Scholarship Requirement: Your grade point average in the "a-f" subjects must be 3.4 or higher, regardless of your college entrance examination score. The Eligibility Index is used only for California residents.

Admission by Examination Alone: You must score at 1100 on the SAT or 26 on the ACT. Your total score on the three College Board Achievement Tests must be at least 1730, with a minimum score of 500 on any single test.

UNIVERSITY OF CALIFORNIA

Admission as a Transfer for Students Entering UC in Fall 1998 and After.

The University considers you a transfer applicant if you graduated from high school and enrolled in a regular session at another college or university. You can't disregard your college record and apply as a freshman.

If you plan to attend a California community college before applying to the University, you should take courses that are transferable, that satisfy University and college requirements, and that fulfill prerequisites in your major. Advisors in the Admissions Office at the campus you wish to attend and community college counselors can help you with your planning.

The University publishes a booklet especially for transfer applicants called Answers for Transfers. It is available from your community college counselor.

CALIFORNIA RESIDENTS

There are basically three ways in which you can meet the University's minimum admission requirements for transfer students. These requirements are described below. In all cases, you must have at least a "C" (2.0) average in all transferable coursework.

*Residency Status: The requirements for bona fide California residents also apply to dependents of University of California graduates and employees. The manner in which legal residence is defined for tuition purposes is different. If you have questions about your residency status, contact the Admissions or Registrar's Office at the campus you wish to attend.

1. If you were eligible for admission to the University when you graduated from high school—meaning you satisfied the Subject, Scholarship, and Examination Requirements—you are eligible to transfer if you have a "C" (2.0) average in your transferable college coursework.

2. If you met the Scholarship Requirement, but did not satisfy the Subject Requirement, you must take transferable courses in the subjects you are missing to be eligible to transfer. You will need to
earn a grade of C or better in each of these required courses, and an overall “C” (2.0) average in all U.C. transferable college coursework. If you completed less than 18 quarter or 12 semester units of U.C. transferable college coursework, you must satisfy the Examination Requirement for freshman applicants.

3. If you were not eligible for admission to the University when you graduated from high school because you did not meet the Scholarship Requirement, or if you did not meet the Scholarship Requirement and did not complete all the required “a-f” subjects, you must:
   a. Complete 90 quarter units or 60 semester units of U.C. transferable college credit with a grade point average of at least 2.4, and
   b. Complete a course pattern requirement to include:
      1. Two transferable college courses (3 semester or 4-5 quarter units each) in English composition; and
      2. One transferable college course (3 semester or 4-5 quarter units) in Mathematical Concepts and Quantitative Reasoning; and
      3. Four transferable college courses (3 semester or 4-5 quarter units each) chosen from at least two of the following subject areas: the arts and humanities, the social and behavioral sciences, the physical and biological sciences.

   *If you graduated from high school before June 1986, your “c” and “f” subject requirements are different from those described previously. Please contact the Admissions Officer at any U.C. campus for more information.

NONRESIDENTS

The minimum admission requirements for nonresident transfer applicants are the same as the those for residents except that nonresidents must have a grade point average of 2.8 or higher in all transferable college coursework.

TRANSFERABLE COURSES TO UNIVERSITY OF CALIFORNIA

Please see your counselor or the Transfer Center Coordinator for all courses that have been accepted by any campus of the University of California as transferable for the 2000-01 school year.

INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM

The Intersegmental Committee of the Academic Senates approved the Intersegmental General Education Transfer Curriculum (IGETC) which was implemented Fall 1991. The IGETC is a series of courses that community college students can use to satisfy lower division general education requirements at any CSU or UC campus. The IGETC is intended to facilitate course planning and should appeal to students who want to keep their options open before making a final decision about transferring to a particular segment or campus. The IGETC will provide an option to the California State University General Education Requirements and has replaced the University of California Transfer Core Curriculum.

FOR STUDENTS TRANSFERRING TO A UC CAMPUS

In general, it is not advisable for transfers to engineering majors at any UC campus to use the IGETC. The IGETC option may also be inappropriate for transfers entering “high unit” majors such as those in the sciences having substantial lower division science and math prerequisites. It may be more appropriate to take courses that are a part of the general education or breadth requirements for the school or college on the UC campus to which a transfer is planned.

FOR STUDENTS TRANSFERRING TO A CSU CAMPUS

It is important to note that IGETC is an option for CSU bound students. The General Education Certification Requirements are still in effect and may be followed by both continuing and new students who plan to transfer to a California State University.
AREA 3 ARTS AND HUMANITIES
(3 courses, with at least one from A and one from B below; 9 semester/12-15 quarter units)

A) Arts
- Architecture 112
- Art 100, 101, 102, 103, 106, 110
- Music 100+, 103, 104, 105
- PE 189
- Theatre 101, 102, 103, 104, 150, 159

B) Humanities
- French 201, 202
- German 102, 201, 202
- Humanities 100
- Japanese 102
- Philosophy 100, 102, 104, 200, 201, 204, 206
- Spanish 102+, 112+, 201, 202, 210

AREA 4 SOCIAL AND BEHAVIORAL SCIENCES
(3 courses from at least two disciplines or an interdisciplinary sequence; 9 semester/12-15 quarter units)

- Anthropology 100, 120, 200
- Economics 101+, 201, 202+
- Geography 102, 105
- Political Science 101+, 201, 210+, 220, 230
- Psychology 101, 150, 251, 261, 271
- Sociology 101, 120, 201, 210, 215
- Speech 110

AREA 5 PHYSICAL AND BIOLOGICAL SCIENCES
(2 courses, one from A and one from B below; at least one course must include laboratory (lab); 7-9 semester/9-11 quarter units)

A) Physical Sciences
- Astronomy 101, 101L (lab)
- Chemistry 100+, (lab), 110+ (lab), 111 (lab), 112 (lab)
- Earth Science 101, 101L (lab), 104, 110+ (lab)
- Geography 101
- Geology 101+ (lab), 110+, 201 (lab), 207 (lab), 209 (Lab)
- Physical Science 100+
- Physics 100+ (lab), 101+ (lab), 102+ (lab), 201+ (lab), 202+ (lab), 203+ (lab)

B) Biological/Life Sciences
- Anatomy and Physiology 120+ (lab), 130+ (lab), 200+ (lab), 201+ (lab)
- Anthropology 115
- Biology 115 (lab), 120+ (lab), 200+ (lab), 201 (lab)
- Botany 120 (lab)
- Microbiology 200 (lab)
- Psychology 241
- Zoology 120 (lab)

ADDITIONAL REQUIREMENTS
A) UC ONLY: Language other than English
There are several ways to satisfy this requirement. They include:
- a) Complete two years of the same foreign language in high school with a grade of “C” or better.
- b) Complete first college course in any foreign language.
- c) Earn a minimum score of 550 on an appropriate College Board Achievement Test in a foreign language.
- d) For other options, see your counselor.

B) CSU ONLY: The CSU has a specific American Institutions requirement that is separate from the general education requirements. Courses used to meet the American Institutions requirement may NOT be used to satisfy requirements for the IGETC. It is recommended that this requirement be met prior to transfer. The following will meet the CSU American Institutions requirement.
6 units, one course from Group 1 and one course from Group 2.
Group 1: History 101+, 201+, 202, 220, 221+
Group 2: Political Science 101+, 201+

C) The UC-bound student should be aware of the American history and institutions requirements at the campus of choice. Requirements do vary. See your counselor for details.
Credit limitation. For details, see your counselor.
Community, Industry and Technology Education — Bringing it all together for Business!

OFFICE OF ECONOMIC DEVELOPMENT
The Office of Economic Development (OED) has been established by Cerritos Community College to meet the specific educational needs of business and industry. The OED provides quality controlled, customized programs and services that go beyond the traditional academic curriculum. All programs and services are developed with input from the corporate client and can be provided at the work-site or on campus at times convenient to the program participants.

The OED serves numerous local companies, among them, aerospace companies, banking institutions, health care agencies, utility and public work companies, communication firms, hotels, restaurants, supermarkets and others.

Services and programs provided by the OED include management training, high-tech training, leadership development, computer technology, banking and finance training, executive fitness training, language training, as well as seminars, conferences and forums on current business issues and concerns. Consultant and technical assistance services are available to work with businesses in developing any program that is not already offered.

For further information please call the Office of Economic Development at (562) 467-5050, extension 2497.

APPLIED TECHNOLOGY EDUCATION CENTER (ATEC)
The Applied Technology Education Center (ATEC) at Cerritos College offers fee-based, short-term courses and programs designed for serious technology users at all levels, and brings together professional information technology and a state-of-the-art facility to meet the stringent training demands of today's high-tech environment. From desktop applications training to networking certification programs, ATEC provides the right learning environment for professionals requiring information technology training.

ATEC's comprehensive courses in popular desktop applications take participants step-by-step through the process of proficiency in applications including: operating systems, presentation packages, desktop office management, web site development, spreadsheet development, word processing and database management.

ATEC is proud to have been designated as an authorized 3Com(r) technical training center and demonstration site. Courses offered include those needed to become 3Com(r) certified, as well as classes designed to enhance professional growth and development.

The 3Com(r) Master of Network Science Program offers certification classes designed to enhance professional growth and development. The 3Com(r) Master of Network Science Program offers certification tracks in network design, network management, wide area network and remote access solutions for current industry professionals desiring to expand their skills and career opportunities.

For more information or course schedules, contact ATEC at (562) 467-5050, extension 2511.

COMMUNITY, INDUSTRY AND TECHNOLOGY EDUCATION
Dedicated to serving the community through excellence in teaching and support services.

The Community Education programs encompass the college function which goes beyond traditional transfer, vocational and general education programs to instill concepts of lifelong learning in the general population. Community Education provides classes, activities, workshops and programs to meet the varied needs of our diverse community, from the very young in the College for Children and Young Scholars programs to our seniors in the Emeritus program. All Community Education courses-career development, work force training and retraining, cultural enrichment, and civic literacy—are educational; their overall goal is to impart knowledge, develop skills, and clarify values. The general approach or delivery is one that provides participants with access to quality programs in a format that blends education with work and leisure throughout life.

Here are just a few of the many exciting learning opportunities Community Education offers to enhance your abilities and expand your horizons. Whatever your interests, we believe you will discover a class, an activity, a workshop or a program to meet your needs.

SEMINARS FOR PROFESSIONALS/ CERTIFICATE OF COMPLETION:
Business and Sales Computer Training-Financial Planning-Real Estate-Makeup Design-Fingernail Art-EMT Recertification-Coronar Polish-Health Professions-Personal Enrichment-CPR-Holistic Health-Dance Classes-Travel/Field Trip Program-Driver and Motorcycle Training-Traffic School, and our College for Children and Youth Program. (Academics, Children's Theatre, Music and Arts, Dance).

For specific information regarding these programs, call Community Education (562) 467-5050, extension 2521.

ADULT EDUCATION/ DIVERSITY PROGRAMS
Adult Education and Diversity Programs provide educational opportunities that address the unique needs of adults in the region. Adult Education courses are noncredit, open entry, open exit, and have No Registration Fees. Adult Education Courses include categories such as:

- English as a Second Language • Vocation English as a Second Language • Parenting • Elementary and Secondary Basic Skills
- Courses for Immigrants • Educational Programs for Persons with Disabilities • Short-term Vocational Programs
- Educational Programs for Older Adults

Emeritus courses are designed to meet the special needs of older adults. Emeritus courses are noncredit, open entry, open exit, and have No Registration Fees. Emeritus courses include:

- Senior Exercise • Massage • Arts and Crafts • Quilting
- Harmony Chorus, Community Chorus • Creative Writing

Cerritos College Adult Education programs also provide access and opportunities for Adult Education students to enter credit, orientation, and vocational college programs.

Services include one-stop registration, assessment and counseling. For more information call (562) 467-5098.

To learn about specific classes and programs offered through Community Education, read the program's Calendar of Events. The calendar contains a complete listing of class offerings, registration procedures and other important information. Look for your Calendar of Events in your mail or call the office for a free copy.

Registration for Community Education classes is always simple.

Walk-In: Come to the Community Education Office located in the far south-west corner of the campus, south of Falcon Way.

Phone: (562) 467-5050. Have your VISA or MASTERCARD number ready.

Mail: Use the detachable registration form in the Calendar of Events.

Fax: Use our fax number (562) 467-5013. Register 24 hours, seven days a week.

In Person: Visit the Community Education Office. Monday - Thursday 8 a.m.-7:30 p.m. Friday 8 a.m.-4:30 p.m. Saturday 8 a.m.-noon.
The Cerritos College Foundation seeks to provide the margin of excellence that has been the hallmark of Cerritos College by offering enhanced and broader educational experience, activities and opportunities both inside and outside the classroom.

The Foundation is a separate, not-for-profit, IRS approved 501(c)(3) corporation chartered in 1979 to provide financially for the educational needs of Cerritos College that cannot be met through state support. Over 25 community leaders volunteer generously of their time, talent, and resources to support Cerritos College and its students by serving on the Foundation Board of Directors.

As a public institution the Foundation's work is guided by a strategic plan approved by the Board and implemented by the Foundation's staff with the active assistance of the college staff and Board of Directors. The Foundation's strategic plan defines the Foundation as essentially seeking endowments to assure future income for vital college programs and services. It provides a focus on long term goals as having a priority over short-term objectives. All endowment earnings are dedicated to provide supplementary funding to sustain Cerritos College’s dedication to excellence. The Foundation concentrates on raising friends who may in the future also provide us with financial support.

A comprehensive planned giving program is offered through the Foundation. It seeks deferred contributions through bequests, gifts of life insurance, pooled income funds, charitable gift annuities, and the establishment of lead trusts and charitable remainder annuity.

The Foundation seeks your assistance in the form of contributions of real property, pledges, cash gifts, memorial donations and other gifts of value that will make this Foundation a meaningful, responsive community organization.

Should you wish to discuss the Foundation and have its goals explained to you, please feel free to contact the Foundation Office on campus at (562) 860-2451, extension 2526.
Students preparing to register for the Fall 2000 semester will discover an easier method to identify, select and register for the right courses to fit their educational plan.

Beginning with the Fall 2000 Class Schedule, students will find that all college courses have been renumbered. The renumbering system was adopted after studying other southland colleges who have participated in a similar process.

The following section will help returning students identify those classes that they have already taken, as well as those still necessary to achieve their individual educational goals.
Course Numbering System

Course Designation: 1 - 49
These are renumbered on departmental courses which do not apply toward the Associates in Arts (A.A.) degree and which will not transfer as degree applicable to another community college or four-year college or university.

Course Designation: 50 - 99
These courses apply toward the Associate in Arts (A.A.) degree, but are not intended for transfer to a four-year college or university.

Course Designation: 100-299
These courses count toward the Associate in Arts (A.A.) degree and are intended for transfer to a four-year college or university. Freshman-level courses are generally given numbers from 100-199, and sophomore-level courses are generally given numbers from 200-299. Courses numbered 100 through 299 are intended as lower division transferable course work. The final decision in regards to transferability rest with the institution to which the credits are transferable.

Special Studies: 49 (non-degree Special Studies)
69 (A.A. degree Special Studies)
109 (transferable Special Studies)

Directed Studies: 289 (1 unit Directed Studies)
299 (2 units Directed Studies)

Work Experience: 171 (1 unit Work Experience)
172 (2 units Work Experience)
273 (3 units Work Experience)
274 (4 units Work Experience)

### OLD NO. | NEW NO. | COURSE TITLE
--- | --- | ---
AJ 1 | AJ 101 | Introduction to Administration of Justice
AJ 2.1 | AJ 102 | Concepts of Criminal Law
AJ 2.2 | AJ 202 | Substantive Law
AJ 3 | AJ 103 | Criminal Procedures
AJ 4 | AJ 104 | Criminal Evidence
AJ 5 | AJ 105 | Community Relations
AJ 8 | AJ 208 | Special Issues in Law Enforcement
AJ 10 | AJ 110 | Concepts of Enforcement Service
AJ 11 | AJ 91 | Report Writing Procedures
AJ 13 | AJ 71 | First Aid — Administration of Justice
AJ 20 | AJ 220 | Criminal Investigation
AJ 21 | AJ 221 | Narcotics and Vice Control
AJ 22 | AJ 222 | Juvenile Procedures
AJ 30 | AJ 130 | Traffic Control and Investigation
AJ 50 | AJ 150 | Introduction to Corrections
AJ 73 | AJ 173 | AJ Occupational Work Experience
AJ 80 | AJ 180 | Introduction to Private and Business Security
A & P 10 | A & P 120 | Introduction to Human Anatomy & Physiology
A & P 40 | A & P 130 | Human Anatomy and Physiology
A & P 52 | A & P 200 | Human Anatomy
A & P 53 | A & P 201 | Human Physiology
ANTH 1 | ANTH 115 | Human Evolution and Variation
ANTH 2 | ANTH 100 | Cultural Anthropology
ANTH 3 | ANTH 120 | Introduction to Archaeology
ANTH 4 | ANTH 200 | Native Peoples of North America
ANTH 5 | ANTH 101 | Faces of Culture
ANTH 10 | ANTH 201 | Native People of California
ANTH 11 | ANTH 203 | The Anthropology of Magic, Witchcraft, and Religion
ANTH 12 | ANTH 202 | The Maya, Inca and Aztecs: Ancient Civilizations of the Americas
ANTH 16 | ANTH 250 | Introduction to Field Archaeology
ANTH 17 | ANTH 251 | Field Trips in Archaeology
ARCH 10 | ARCH 110 | Introduction to Architecture
ARCH 11 | ARCH 111 | Architectural Drafting
ARCH 12 | ARCH 112 | History of Architecture
ARCH 20 | ARCH 113 | Building Codes
ARCH 21 | ARCH 121 | Materials & Methods of Building Construction
ARCH 22 | ARCH 50 | Introduction to Computer Aided Drafting for Architecture
ARCH 30 | ARCH 122 | Architectural Delineation
ARCH 31 | ARCH 211 | Architectural Design, Programming, and Presentation
ARCH 32 | ARCH 212 | Architectural Design Theory I
ARCH 33 | ARCH 51 | Advanced Applications of Computer Aided Drafting for Architecture
ARCH 41 | ARCH 221 | Working Drawing/Architectural Desktop
ARCH 42 | ARCH 222 | Architectural Design Theory II
ARCH 73 | ARCH 43 | Architectural Work Experience
ARCH 74 | ARCH 44 | Architectural Work Experience
ART 1 | ART 101 | Appreciation and History
ART 2 | ART 102 | Appreciation and History
ART 3 | ART 103 | Modern and Contemporary Appreciation
ART 4 | ART 104 | Contemporary Art Practices
ART 5 | ART 105 | Women Artists
ART 6 | ART 106 | Mexican Art
ART 7 | ART 100 | Introduction to World Art
ART 8 | ART 107 | Asian Art History
ART 9 | ART 110 | Freehand Drawing
ART 10 | ART 111 | Intermediate Freehand Drawing
ART 11 | ART 112 | Life Drawing
ART 12 | ART 113 | Intermediate Life Drawing
ART 13 | ART 213 | Special Studies in Life Drawing
ART 14 | ART 214 | Printmaking Lab
ART 15 | ART 115L | Beginning Printmaking
ART 16 | ART 116 | Intermediate Printmaking
ART 17 | ART 117 | Screenprinting
ART 18 | ART 218 | Advanced Etching
ART 19 | ART 219 | Two-Dimensional Design
ART 20 | ART 120 | Three-Dimensional Design
ART 21 | ART 121 | Chinese Brush Painting
ART 22 | ART 50 | Fundamentals of Painting
ART 30.1 | ART 130A | Fundamentals of Painting
ART 30.2 | ART 130B | Intermediate Painting
ART 31 | ART 231 | Portraiture: Drawing/Painting the Head
ART 32 | ART 232 | Watercolor Painting
ART 33.1 | ART 133A | Watercolor Painting
ART 33.2 | ART 133B | Watercolor Painting
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<td>TH 42</td>
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<td>WMT 18.1</td>
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<td>TH 145</td>
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<td>WMT 22.8</td>
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</table>
ADMINISTRATION OF JUSTICE

The following Administration of Justice Associate in Arts Degree and Certificate of Achievement programs meet guidelines established by the California Community Colleges' Chancellor's Office.

ALL CERTIFICATE OF ACHIEVEMENT CANDIDATES MUST COMPLETE THE FOLLOWING CORE OF COURSES SATISFACTORY. THIS PROGRAM OF STUDY SATISFIES CALIFORNIA P.O.S.T. REQUIREMENTS FOR PRE-LAW ENFORCEMENT EMPLOYMENT.

ADMINISTRATION OF JUSTICE—774

POST CERTIFICATE OF ACHIEVEMENT

This program of study satisfies California P.O.S.T. requirements for pre-law enforcement employment and meets guidelines established by the California Community Colleges' Chancellor's Office.

ALL POST CERTIFICATE OF ACHIEVEMENT CANDIDATES MUST COMPLETE THE FOLLOWING COURSES SATISFACTORY AFTER THE FALL 1996 SEMESTER, AND A.J. DEPARTMENT APPROVAL IS REQUIRED FOR THIS CERTIFICATE.

ADMINISTRATION OF JUSTICE CORE—(26 units)

<table>
<thead>
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<th>Course</th>
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<tr>
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<td>AJ 102</td>
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<td>AJ 202</td>
<td>3</td>
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<td>AJ 208</td>
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</table>

ASSOCIATE IN ARTS DEGREE—775

ASSOCIATE IN ARTS DEGREE

The following Administration of Justice Associate in Arts Degree program meets guidelines established by the California Community Colleges’ Chancellor’s Office.

Six units of elective, non-transferable Administration of Justice credit may be granted to employed peace officers who have completed a basic P.O.S.T. academy.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete a minimum of 60 units, including: (1) the Administration of Justice Core and Department requirements, (2) A.A. degree general education requirements, and (3) additional elective courses as needed.

ADMINISTRATION OF JUSTICE CORE—(21 units)

<table>
<thead>
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<tbody>
<tr>
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<td>AJ 102</td>
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DEPARTMENT REQUIREMENTS—Required (12 units)

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<tr>
<td>AJ 220</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 101</td>
<td>3</td>
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</tbody>
</table>

CAREER OPPORTUNITIES: Upon completion of the Administration of Justice Associate in Arts Degree program, employment in various positions in the criminal justice system is available, including police officer, deputy sheriff, correctional officer, investigator, etc. Civil service regulations and state laws govern the appointment of public law enforcement officers. Eligibility depends on performance in competitive exams in addition to education and experience. The positions have rigorous physical, psychological and integrity requirements. Employment is further conditioned on completion of a satisfactory background investigation. Completion of the Baccalaureate transfer program provides the educational potential for advancement to supervisory and management positions or entry to graduate studies or law school.

See Cerritos College Graduation Requirements.

ADMINISTRATION OF JUSTICE—776

TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION

FOR THE CALIFORNIA STATE UNIVERSITY

<table>
<thead>
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GENERAL RECOMMENDED ELECTIVES

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LOWER DIVISION MAJOR REQUIREMENTS

FOR SPECIFIC TRANSFER INSTITUTIONS

California State University - Long Beach

Recommended Electives:

<table>
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<tr>
<th>Course</th>
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<td>AJ 102</td>
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<tr>
<td>AJ 103</td>
<td>3</td>
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<tr>
<td>AJ 104</td>
<td>3</td>
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</table>
AJ 105  Community Relations  3
AJ 202  Substantive Law  3

California State University - Los Angeles
AJ 102  Concepts of Criminal Law  3
AJ 202  Substantive Law  3

Recommended Electives:
AJ 110  Concepts of Enforcement Services  3
AJ 130  Traffic Control & Investigation  3
AJ 220  Criminal Investigation  3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
The completion of 60 units, including the above 18 units of AJ requirements, the Associate in Arts and California State University transfer General Education requirements, qualifies the student for the AA degree in Administration of Justice and transfer to the California State University.

CAREER OPPORTUNITIES: For those persons seeking employment in law enforcement at the AA level of preparation, many opportunities exist in the various federal, state, municipal and county criminal justice agencies. A wider variety of employment opportunities exist for those who hold a Bachelor's degree (e.g. administration) and/or Masters degree (e.g. teaching, research, administration, etc.).

See Cerritos College Graduation Requirements.
See State University General Education List.

AGRICULTURE—655
TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY
BIOL 120  Introduction to Biological Science  4
BOT 120  Introduction to Plant Science  4
CHEM 111  General Chemistry  5
CHEM 112  General Chemistry  5
ECON 201  Principles  3
or ECON 202  Principles  (3)

Consult catalogs and your counselor for selection from the following math and science courses applicable to the option you plan to specialize in at the four-year college level.

MATH 140  Trigonometry  3
MATH 101  Pre Calculus Math  4
MATH 116  Calculus for Managerial, Biological & Social Sciences  4
ZOOI 120  Introduction to Animal Science  4
PHYS 101  General Physics  4
MICR 200  Introductory Microbiology  5
CHEM 211  Organic Chemistry  5

California State University and Colleges that offer the Bachelor's Degree: Chico, Pomona, Fresno, San Luis Obispo.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete 60 units to include: (1) The above required courses, (2) electives as needed, and (3) the Associate in Arts Degree General Education requirements.

CAREER OPPORTUNITIES: Programs with an emphasis in Agriculture are designed for agriculturally-related occupations in business, industry, specialized services, education, conservation, recreation and production. Many careers unknown a few years ago have expanded with mechanization to meet food needs.

See Cerritos College Graduation Requirements.
See State University General Education List.

ANTHROPOLOGY—710
TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY
ANTH 100  Cultural Anthropology  3
ANTH 115  Human Evolution and Variation  3
ANTH 120  Introduction to Archeology  3

LOWER DIVISION RECOMMENDED COURSES FOR SPECIFIC TRANSFER INSTITUTIONS
California State University - Long Beach:
BIOL 120  Introduction to Biological Science  4
GEOL 110  Introduction to Geology  3
PSYC 101  General Introductory Psychology  3
SOC 101  Introductory Sociology  3

California State University - Los Angeles:
A modern foreign language (1 and 2 level) or successful completion of 3 years of high school foreign language will be accepted as equivalent.

California State University - Dominguez Hills:
CSUDH offers a Clinical Anthropology concentration which provides majors with a background in medical and psychological anthropology, useful for careers in health and health-related fields.

The Master of Arts program in Anthropology generally provides training in one or more of the following fields of study: 1) Cultural Anthropology, 2) Ethnography, 3) Archaeology, 4) Linguistics, 5) Physical Anthropology, 6) Social Organization.

ADDITIONAL RECOMMENDED ELECTIVES: ANTH 200, ART 106, SPAN 245, PSYC 101

CAREER OPPORTUNITIES: Employment for the person holding the Ph.D. in Anthropology is good. Usual placements are chiefly in colleges and universities and also in museums, national parks, and in technical aid programs. Persons holding the B.A. will find limited employment. A person interested in teaching can use Anthropology as a teaching minor.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all A.A. degree general education requirements for a total of least 60 units.

See Cerritos College Graduation Requirements.
See State University General Education List.
### ARCHITECTURAL TECHNOLOGY—825
#### ASSOCIATE IN ARTS DEGREE PROGRAM

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<tr>
<td>ARCH 51 Advanced Applications of Computer Aided Drafting for Architecture</td>
<td>4</td>
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<tr>
<td>ARCH 110 Introduction to Architecture and Environmental Design</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 111 Architectural Drafting</td>
<td>3</td>
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<tr>
<td>ARCH 112 History of Architecture</td>
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<td>ARCH 113 Building Codes</td>
<td>4</td>
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<td>ARCH 121 Materials and Methods of Building Construction</td>
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<td>ARCH 122 Architectural Delineation</td>
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<tr>
<td>ARCH 211 Architectural Design, Programming &amp; Presentation</td>
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<td>ARCH 212 Architectural Design Theory I</td>
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<tr>
<td>ARCH 22 Working Drawing/Architectural Desktop</td>
<td>3</td>
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<td>ARCH 222 Architectural Design Theory II</td>
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<tr>
<td>ART 110 Freehand Drawing</td>
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**ASSOCIATE IN ARTS DEGREE REQUIREMENTS:**
Complete 60 units to include (1) the above course requirements, (2) the A.A. Degree general education requirements, and (3) electives as needed.

**RECOMMENDED ELECTIVES:** PSYC 101, BA 100, BUSR 101.

**CAREER OPPORTUNITIES:** Employment as an architectural draftsperson, Architectural CAD drafter. Related Transfer Programs: See Architecture - 605 and Industrial Technology-Construction - 837.

See Cerritos College Graduation Requirements.

### ARCHITECTURE—605
#### TRANSFER PROGRAM

**COMMON LOWER DIVISION REQUIREMENTS**

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<td>ARCH 111 Architectural Drafting</td>
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<tr>
<td>ARCH 112 History of Architecture</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 121 Materials and Methods of Building Construction</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 122 Architectural Delineation</td>
<td>2</td>
</tr>
<tr>
<td>ARCH 211 Architectural Design, Programming and Presentation</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 212 Architectural Design Theory I</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 222 Architectural Design Theory II</td>
<td>3</td>
</tr>
<tr>
<td>ECON 201 Principles</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102 Freshman Composition and Literature</td>
<td>3</td>
</tr>
<tr>
<td>MATH 140 Trigonometry</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 101 General Physics and Laboratory</td>
<td>4</td>
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</tbody>
</table>

**ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS**
- **California State Polytechnic University - Pomona**
  - PHYS 101 General Physics and Laboratory | 4 |
- **California State Polytechnic University - San Luis Obispo**
  - MATH 102 Analytic Geometry and Calculus I | 4 |
  - MATH 103 Analytic Geometry and Calculus II | 4 |
  - PHYS 201 Engineering Physics | 4 |
  - PHYS 203 Engineering Physics | 4 |

**University of California - Berkeley**
- ART 110 Freehand Drawing | 3 |
- ART 121 Three Dimensional Design | 3 |
- MATH 102 Analytic Geometry and Calculus I | 4 |
- MATH 103 Analytic Geometry and Calculus II | 4 |
- PHYS 201 Engineering Physics | 4 |

**NOTE:** The undergraduate programs in architecture are impacted programs. Besides meeting entrance requirements to the universities, prospective students are required to also, make separate application to the School of Architecture. Applicants are evaluated through a selection process carried out by departmental faculty. See your counselor for specific recommendations for this major.

**ASSOCIATES IN ARTS DEGREE REQUIREMENTS:** Complete 60 units to include (1) the above required courses, (2) electives as needed and (3) the Associate in Arts Degree in general education requirements.

**CAREER OPPORTUNITIES:** Bachelor Degree graduates will have developed design and related skills necessary for entry into the professional field of Architecture.

See Cerritos College Graduation Requirements.

See State University General Education List.

### ART AND DESIGN—111
#### ASSOCIATE IN ARTS DEGREE

**REQUIRED COURSES (15 units)**

| ART 102 Appreciation and History | 3 |
| or ART 103 Modern and Contemporary Appreciation | (3) |
| ART 110 Freehand Drawing | 3 |
| ART 112 Life Drawing | 3 |
| ART 120 Two-Dimensional Design | 3 |
| ART 121 Three-Dimensional Design | 3 |

**ART OPTIONAL TRACKS (Choose One)**

**ART HISTORY Required (12 units)**

| ART 100 World Art History | 3 |
| ART 101 Appreciation and History | 3 |
| ART 102 Appreciation and History | 3 |
| or ART 103 Modern and Contemporary Appreciation | (3) |
| ART 106 Mexican Art | 3 |

**CERAMICS Required (6 units)**

| ART 150 Beginning Ceramics I | 3 |
| ART 151 Beginning Ceramics II | 3 |

**JEWELRY Required (12 units)**

| ART 144 Jewelry | 3 |
| ART 145 Lost Wax Casting/Rubber Mold Making | 3 |
| ART 246 Jewelry Design Fabrication | 3 |

**DRAWING AND PAINTING—(9 units)**

| ART 130A Fundamentals of Painting | 3 |
| ART 130B Fundamentals of Painting | 3 |
| ART 136 Beginning Painting for Art Majors | 3 |
### Curricula, Requirements for Majors, Certificates and Transfer Programs

**PRINTMAKING**— (9 units)
- ART 116 Beginning Printmaking 3
- ART 117 Intermediate Printmaking 3
- ART 218 Screenprinting 3
- or ART 219 Advanced Etching (3)

**SCULPTURE**— (11 units)
- ART 160 Life Modeling 2
- ART 162 Sculpture I 3
- ART 163 Sculpture II 3
- ART 264 Sculpture III 3
- or ART 265 Sculpture IV (3)

**DESIGN OPTIONAL TRACKS (CHOOSE ONE)**

**GRAPHIC DESIGN**— (18 units)
- ART 182A Lettering and Typography 3
- ART 184 Graphic Design I 3
- ART 186 Computer Graphics in Art and Design (Digital Drawing) 3
- ART 188 Desktop Publishing Design 3
- ART 192 Digital Imaging 3
- ART 284 Graphic Design II 3

**MULTIMEDIA DESIGN**— (18 units)
- ART 186 Computer Graphics in Art and Design (Digital Drawing) 3
- ART 188 Desktop Publishing Design 3
- ART 192 Digital Imaging 3
- ART 194 Multimedia Design 3
- ART 195 Computer Modeling 3
- ART 196 Introduction to Designing Web Graphics 3

**RECOMMENDED ELECTIVES**

**CERAMICS**
- ART 252 Intermediate Ceramics I 3
- ART 253 Intermediate Ceramics II 3

**DRAWING AND PAINTING**
- ART 213 Intermediate Life Drawing 3
- ART 237 Life Painting 3
- ART 238 Special Studies in Painting 3

**GRAPHIC DESIGN**
- ART 180 Calligraphy I 3
- ART 181 Calligraphy II 3
- ART 182B Lettering and Typography II 3
- ART 185 Rendering I 3
- ART 285 Rendering II 3
- BA 110 Advertising 3
- PHOTO 100 Introductory Photography 3

**MULTIMEDIA DESIGN**
- PHOTO 100 Introductory Photography 3
- PHOTO 102 Intermediate Photography 3
- PHOTO 112 Intermediate Digital Photography 3
- ART 184 Graphic Design I 3
- CIS 103 Computer Programming Logic 3
- CIS 205 Programming in HTML or the World Wide Web 1.5

**PRINTMAKING**
- ART 218 Screenprinting 3
- ART 219 Advanced Etching 3

**ASSOCIATE IN ARTS DEGREE REQUIREMENTS:**
- Complete a minimum of 60 units to include: (1) Above art courses and units requirements, (2) AA Degree general education requirements and (3) electives as needed.

**CAREER OPPORTUNITIES:** Self-employed artist/craftsman; designer; jeweler; potter; printmaker; freehand illustrator; letterer; commercial artist; paste-up, sketch, layout; private studio; gallery museum worker; art supplies sales.

See Cerritos College Graduation Requirements.

### ART AND DESIGN— 116

#### TRANSFER PROGRAM

**COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY UNITS**

**ART AND DESIGN**
- ART 101 Appreciation and History 3
- ART 102 Appreciation and History 3
- ART 110 Freehand Drawing 3
- ART 120 Two-Dimensional Design 3
- ART 121 Three-Dimensional Design 3

**GRAPHIC DESIGN (in addition to the above)**
- ART 182A Lettering and Typography I 3

**MULTIMEDIA DESIGN (in addition to the above)**
- ART 182A Lettering and Typography I 3
- ART 185 Rendering 3

**ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC CALIFORNIA STATE UNIVERSITIES**

**California State University - Dominguez Hills**
- ART 103 Modern and Contemporary Appreciation 3
- ART 130A Fundamentals of Painting 3
- ART 162 Sculpture I 3

**Available Options:** Art History, Design, and Studio Art

**California State University - Fullerton**
- ART 112 Life Drawing 3
- ART 130A Fundamentals of Painting 3
- ART 130B Fundamentals of Painting 3

**California State University - Long Beach**
- ART 136 Beginning painting for Art Majors 3

**California State University - Los Angeles**
- ART 112 Life Drawing 3
- ART 130A Fundamentals of Painting 3
- or ART 136 Beginning Painting for Arts Major (3)

75
Available Options: Animation (Traditional and Computer Track); Design; Art Education; Art History; Fashion and Textiles.

LOWER DIVISION REQUIREMENTS FOR SPECIFIC CAMPUSES OF THE UNIVERSITY OF CALIFORNIA

University of California - Irvine
ART 101 Appreciation and History 3
ART 102 Appreciation and History 3
ART 103 Modern and Contemporary Appreciation 3

Plus, four (4) courses selected from,
ART 110 Freehand Drawing 3
ART 130A Fundamentals of Painting 3
ART 162 Sculpture I 3
ART 155 Beginning Ceramic Sculpture 3
or ART 192 Digital Imaging (3)

University of California - Los Angeles
ART 103 Modern and Contemporary Appreciation 3
ART 110 Freehand Drawing 3
ART 130A Fundamentals of Painting 3
ART 162 Sculpture I 3
PHOT 100 Introductory Photography 3

Plus, one (1) course selected from:
ART 101 Appreciation and History 3
or ART 102 Appreciation and History (3)
or ART 105 Women Artists (3)
or ART 100 Introduction to World Art (3)
or ART 107 Asian Art History (3)

University of California - Riverside
ART 110 Freehand Drawing 3
ART 136 Beginning Painting for Art Majors 3

Plus, one (1) course selected from:
ART 101 Appreciation and History 3
or ART 102 Appreciation and History (3)
or ART 103 Modern and Contemporary Appreciation (3)

Additional Art classes should be selected according to the student's art emphasis at the transfer institution. Contact a Cerritos College Fine Arts Counselor for specific requirements for the school and option selected in order to optimize preparation to transfer.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete the following: (1) Above transfer requirements, (2) the AA Degree General Education requirements, and (3) electives to achieve a minimum of 60 units.

ARTS CAREER OPPORTUNITIES: Self-employed artist/craftsman designer, printmaker, potter, freehand illustrators, private studio, gallery museum or display worker, and curator, art supplies sales, studio or art history instructor, art consultant.

GRAPHIC DESIGN/MULTIMEDIA DESIGN CAREER OPPORTUNITIES: The Graphic Design track prepares students for careers in the fields of graphic design and desktop publishing. The Multimedia track focuses on electronic media including multimedia and web design.

AUTobody MANAGEMENT—852
CERTIFICATE OF ACHIEVEMENT

REQUIRED COURSES UNITS
AB 1 Collision Estimating I 3
AB 51 Collision Repair I 5
AB 56 Automotive Welding 2
AB 61 Refinishing I 5
AB 72 Auto Body Management Specialty (3 @ 1.5 units) 6
AB 80 Auto Body Customer Service 2
AB 82 Collision Estimating II 3
AB 83 Collision Estimating Specialty (3 @ 1.5 unit) 4.5
AB 85 Collision Repair Management 3
AB 86 Collision Repair Production 2

TOTAL CERTIFICATE REQUIREMENT 35.5

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for the Certificate of Achievement in Autobody Management. Plus, for an A.A. Degree a student should also complete BA 100, BA 53, BA 121, BCOM 147, and TM 50, electives and general education requirements to achieve a minimum of 60 units.

CAREER OPPORTUNITIES: This program prepares the student with entry skills in the automotive collision repair and refinishing trade, including: shop manager, shop supervisor, estimator, production manager, insurance adjuster.

See Cerritos College Graduation Requirements.

AUTobody REFINISHING—814
CERTIFICATE OF ACHIEVEMENT

REQUIRED COURSES UNITS
AB 1 Collision Estimating I 3
AB 2 Automotive Refinishing and Color Matching 1.5
AB 45 Pinstriping and Lettering 2
AB 51 Collision Repair I 5
AB 56 Automotive Welding 2
AB 61 Refinishing I 5
AB 62 Automotive Refinishing II 5
AB 63 Production Automotive Refinishing III 5
AB 85 Collision Repair Management 3
AB 86 Collision Repair Production 2

TOTAL CERTIFICATE REQUIREMENT 34.5

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for the Certificate of Achievement in Autobody Refinishing. Plus, for an A.A. Degree a student should also complete BA 100, BA 53, BA 121, BCOM 147, and TM 50, electives and general education requirements to achieve a minimum of 60 units.

CAREER OPPORTUNITIES: This program prepares the student with entry skills in the automotive collision repair and refinishing trade, including: body repair technician assistant, painter, painter's assistant, shop supervisor, estimator, production manager, insurance adjuster, estimator.

See Cerritos College Graduation Requirements.
AUTOMOTIVE COLLISION REPAIR
(AUTOBODY TECHNICIAN)—849

CERTIFICATE OF ACHIEVEMENT

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<tr>
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<tr>
<td>TOTAL CERTIFICATE REQUIREMENT:</td>
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</table>

Employment opportunities upon completion of the program: Technician in Automotive Collision Repair and Refinishing.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for the Certificate of Achievement in Automotive Collision Repair. Plus, for an A.A. Degree a student should also complete BA 100, BA 53, BA 121, BCOM 147, and TM 50, electives and general education requirements to achieve a minimum of 60 units.

CAREER OPPORTUNITIES: This program prepares the student with entry skills in the automotive collision repair and refinishing trade, including: body repair technician, body repair technician assistant, painter, painter's assistant, shop supervisor, estimator, production manager, insurance adjuster/estimator.

See Cerritos College Graduation Requirements.

AUTOMOTIVE MECHANICAL REPAIR
TECHNOLOGY—810
CERTIFICATES OF ACHIEVEMENT

AUTOMOTIVE MECHANICAL REPAIR TECHNOLOGY-GENERAL TECHNICIAN—807

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<td>AUTO 160</td>
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<td>AUTO 226</td>
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AUTOMOTIVE MECHANICAL REPAIR TECHNOLOGY-ELECTRICAL/ DIAGNOSIS TECHNICIAN—804

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<td>AUTO 170</td>
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<td>AUTO 180</td>
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<tr>
<td>AUTO 223</td>
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<td>AUTO 233</td>
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<td>AUTO 243</td>
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AUTOMOTIVE MECHANICAL REPAIR ENGINE/ MACHINING TECHNOLOGY—805

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<td>AUTO 150</td>
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<td>AUTO 225</td>
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<td>AUTO 245L</td>
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AUTOMOTIVE MECHANICAL REPAIR MANUFACTURE SPECIALTY—806

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<td>AUTO 131</td>
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<td>AUTO 141</td>
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<td>AUTO 161</td>
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<tr>
<td>AUTO 231</td>
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<td>TOTAL</td>
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</tbody>
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AUTOMOTIVE MECHANICAL REPAIR ELECTRIC VEHICLE (EV) TECHNOLOGY—808

Recommended High School Preparation: Algebra, Automotive Repair, Electronics

BASIC CORE COURSES

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<thead>
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<td>EL 86</td>
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<td>WELD 100</td>
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And six (6) units selected from the following courses:

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<tr>
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<td>EL 110L</td>
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<td>EL 120</td>
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<td>PMT 61</td>
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<td>WELD 110</td>
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<tr>
<td>TOTAL</td>
<td>35</td>
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</table>
ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
The completion of 60 units to include 1) courses for completion of an Automotive Certificate option, 2) General Education course requirements to include Technical Math 50, and 3) electives as needed.

RECOMMENDED ELECTIVES: Weld 100, Met 100A, MTT 100, BCOM 147, BCOM 148, MFGT 100, TM 50.

CAREER OPPORTUNITIES: General Auto Mechanic, Parts Clerk, Mechanical and Auto Agencies or Commercial Fleets, and a variety of automotive specialties.

See Cerritos College Graduation Requirements.

BILINGUAL EDUCATION—509
TRANSFER PROGRAM
Curriculum leading to a Bachelor of Arts Degree either in a single subject or liberal studies major at The California State University. The State of California provides for a two-step, five-year program leading to the Basic Teaching Credential. The first two years of this process may be completed at Cerritos College.

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY

<table>
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<tr>
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<td>SPAN 213</td>
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<td>SPAN 214</td>
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<td>SPAN 245</td>
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<tr>
<td>CD 110</td>
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</table>

* Spanish Speakers may waive SPAN 111 or 112 by examination.

LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS
Consult your counselor for current information regarding lower division major requirements for specific transfer institutions. Transfer college catalogs are available in the Counseling Center.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
The completion of 60 units, including the above required courses and the Associate in Arts General Education Requirements, qualifies a student for the Associate in Arts Degree in Bilingual Education.

CAREER OPPORTUNITIES: Professional opportunities after transfer and completion of a university program leading to the basic teaching credential with Bilingual emphasis: Employment as a credentialed teacher to instruct in any grade level pre-school through classes for adults.

See Cerritos College Graduation Requirements.

See State University General Education List.

BIOLOGY—680
TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY

<table>
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<td>BIOL 201 Principles of Biology</td>
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<tr>
<td>CHEM 111 General Chemistry</td>
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<td>CHEM 112 General Chemistry</td>
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<tr>
<td>PHYS 101 General Physics</td>
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<tr>
<td>PHYS 102 General Physics</td>
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</table>

ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University - Dominguez Hills
MATH 102 Analytic Geometry and Calculus I 4
or MATH 116 Calculus for Managerial, Biological, and Social Sciences (4)
MATH 112 Elementary Statistics 4
As option to PHYS 101 & 102:
PHYS 201 Engineering Physics 4
AND PHYS 202 Engineering Physics 4

California State University - Fullerton
BOT 120 Introduction to Planet Science 4
MATH 102 Analytic Geometry and Calculus I 4
or MATH 116 Calculus for Managerial, Biological, and Social Sciences (4)
ZOOL 120 Introduction to Animal Biology 4

California State University - Long Beach
MATH 102 Analytic Geometry and Calculus I 4
MATH 103 Analytic Geometry and Calculus II 4
or MATH 116 Calculus for Managerial, Biological, and Social Sciences (4)

California State University - Los Angeles
CHEM 205 Quantitative Analysis Chemistry 4
MATH 102 Analytic Geometry and Calculus I 4
MATH 116 Calculus for Managerial, Biological, and Social Sciences 4

COMMON LOWER DIVISION PREPARATION FOR THE UNIVERSITY OF CALIFORNIA

<table>
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<tr>
<th>Course</th>
<th>Units</th>
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<td>CHEM 111 General Chemistry</td>
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<td>CHEM 112 General Chemistry</td>
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<tr>
<td>CHEM 211 Organic Chemistry</td>
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<td>CHEM 212 Organic Chemistry</td>
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<tr>
<td>PHYS 201 Engineering Physics</td>
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<td>PHYS 202 Engineering Physics</td>
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<tr>
<td>PHYS 203 Engineering Physics</td>
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ADDITIONAL LOWER DIVISION PREPARATION FOR THE UNIVERSITY OF CALIFORNIA

California State University - Irvine
MATH 102 Analytic Geometry and Calculus I 4
MATH 103 Analytic Geometry and Calculus II 4
or MATH 112 Elementary Statistics (4)
or PSYC 210 Elementary Statistics (4)

University of California - Los Angeles
MATH 102 Analytic Geometry and Calculus I 4
MATH 103 Analytic Geometry and Calculus II 4

Students intending to meet lower division requirements for any School or division of the University of California should consult the
catalog of that institution. Biology 200 and 201 are especially recommended for the University of California (all campuses). Physics with Calculus as a prerequisite may be required.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete the 60 units to include (1) the above required courses (2) electives as needed and (3) the Associate in Arts general education degree requirements.

CAREER OPPORTUNITIES: The Bachelor's Degree programs with an emphasis in Biology are designed to qualify the student to enter graduate schools, to enter teaching at the primary and secondary level, and are appropriate for some applied work in laboratories, federal employment, state civil service and the pharmaceutical industry.

BOTANY—685
TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION
FOR THE CALIFORNIA STATE UNIVERSITY

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<td>BIOL 200</td>
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<td>AND BIOL 201</td>
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<td>General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 112</td>
<td>General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>MICRO 200</td>
<td>Introduction to Microbiology and Bacteriology</td>
<td>5</td>
</tr>
<tr>
<td>PHYS 101</td>
<td>General Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 102</td>
<td>General Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete 60 units to include (1) the above required courses (2) electives as needed and (3) the Associate in Arts general education degree requirements.

CAREER OPPORTUNITIES: Bachelor's Degree programs with an emphasis in Botany are designed to qualify the student for graduate study in the field; for teaching through the high school level; for applied work with Federal, State park, forestry and agricultural services, and with private industry.

See Cerritos College Graduation Requirements. See State University General Education List.

BUSINESS ACCOUNTING PROGRAMS
BUSINESS ACCOUNTING—240
CERTIFICATE OF ACHIEVEMENT

<table>
<thead>
<tr>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 100</td>
<td>Fundamentals of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>BUSA 101</td>
<td>Fundamentals of Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>BUSA 131</td>
<td>Computerized Accounting-IBM</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 133</td>
<td>Computerized Spreadsheet Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 201</td>
<td>Intermediate Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>BUSA 202</td>
<td>Intermediate Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>BUSA 240</td>
<td>Cost Accounting</td>
<td>4</td>
</tr>
<tr>
<td>or BUSA 241</td>
<td>Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUSA 250</td>
<td>Income Tax Accounting</td>
<td>3</td>
</tr>
<tr>
<td>or BUSA 130</td>
<td>Payroll Tax Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUSF 50</td>
<td>Electronic Calculators/Business Applications</td>
<td>3</td>
</tr>
<tr>
<td>BUSF 125</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>or BUSA 60</td>
<td>QuickBooks Accounting</td>
<td>(1.5)</td>
</tr>
</tbody>
</table>

AND BUSA 61 | Turbo Tax Accounting | (1.5) |

TOTAL CERTIFICATE REQUIREMENTS: 35

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in Business Accounting and complete general education requirements to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

OTHER RECOMMENDED COURSES:
BA 100 | Fundamentals of Business | 3 |
BA 111 | Business Law | 3 |
BCOM 147 | Business Communications | 3 |

*Prerequisite for BUSA 101 - BUSA 100.

Please see a Business counselor or the respective department chairperson for additional alternatives.
See Cerritos College Graduation Requirements.

BUSINESS ACCOUNTING ADVANCED ACCOUNTING—244
CERTIFICATE OF ACHIEVEMENT

<table>
<thead>
<tr>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 240</td>
<td>Cost Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUSA 241</td>
<td>Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUSA 270</td>
<td>Fundamentals of Auditing</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 280</td>
<td>Advanced Accounting</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL CERTIFICATE REQUIREMENTS: 45/46

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in Business Advanced Accounting and complete general education requirements to achieve a minimum of 60 units.

OTHER RECOMMENDED COURSE:
BA 112 | Business Law |

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see a Business counselor or the respective department chairperson for additional alternatives.

BUSINESS ACCOUNTING
MICROCOMPUTER ACCOUNTING CLERK—243
CERTIFICATE OF ACHIEVEMENT

<table>
<thead>
<tr>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 100</td>
<td>Introduction to Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 101</td>
<td>Fundamentals of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>BUSA 131</td>
<td>Computerized Accounting-IBM</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 133</td>
<td>Computerized Spreadsheet Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUSF 50</td>
<td>Electronic Calculators/Business Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL CERTIFICATE REQUIREMENTS: 35

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in Business Accounting and complete general education requirements to achieve a minimum of 60 units.

OTHER RECOMMENDED COURSES:
BUSF 50 | Electronic Calculators/Business Applications |

Please see a Business counselor or the respective department chairperson for additional alternatives.
BUSINESS ADMINISTRATION PROGRAMS

BUSINESS ADMINISTRATION MINOR

CERTIFICATE OF COMPLETION (9 UNITS)

Complete, with a grade of “C” or better, BA 100 and two additional Business Administration courses which have been determined in consultation with a full-time business instructor, or counselor, to enhance the student’s individual employment success.

Upon receiving your Certificate of Achievement or A.A. degree, a statement will be placed on your official transcript that you have completed the requirements for a Minor in Business Administration.

A separate certification of completion of the requirements for a Minor in Business Administration can also be issued. Check with department for details.

CAREER OPPORTUNITIES: This minor combined with your major provides significant preparation for employment in business, private industry, and self-employment.

BUSINESS GENERAL— 200

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

In order to qualify for an Associate in Arts Degree in General Business the following requirements must be met:

1. Completion of the A.A. degree general education and proficiency requirements;
2. Completion of a minimum of 60 degree applicable units.
3. Completion of at least 18 units selected from any of the courses offered by the Business Division. The Business Division departments are listed below:
   a. Business Accounting/Finance
   b. Business Administration
   c. Business Administrative Support Systems/Business Communications
   d. Business Court Reporting
   e. Business Paralegal
   f. Business Real Estate

NOTE: Although many of these courses are transferable, this A.A. Degree is nontransferable.

Please see Business Counselors or the respective department for additional alternatives.

See Cerritos College Graduation Requirements.

CAREER OPPORTUNITIES: Prepares the student for a variety of career opportunities in business, industry, government, and self-employment.

BUSINESS ADMINISTRATION— 273

CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS: 31 UNITS

BUSA 101 Fundamentals of Accounting I 4
BUSA 102 Fundamentals of Accounting II 4
BA 111 Business Law 3
BA 112 Business Law 3
BA 114 Marketing 3
BA 115 Management Business 3
BA 171-174 Business Administration Occupational Work Experience 1-4
CIS 101 Introduction to Business Computer Information Systems 3
ECON 201 Principles 3

NOTE: Although many of these courses are transferable, this Certificate/ A.A. Degree is nontransferable.

Please see Business Counselors or the respective department for additional alternatives.
Curricula, Requirements for Majors, Certificates and Transfer Programs

| ECON 202 | Principles | 3 |
| or BA 113 | Legal Environment | (3) |

**TOTAL CERTIFICATE REQUIREMENTS:** 30/33

**ASSOCIATE IN ARTS DEGREE REQUIREMENTS:**
Meet the requirements for a Certificate of Achievement in Business Administration. Complete electives BA 101 and CIS 102 and complete general education requirements to achieve a minimum of 60 units. (Highly recommend completion of BCOM 147.)

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.
Please see Business Counselors or the respective department for additional alternatives.
See Cerritos College Graduation Requirements.

**BUSINESS ADMINISTRATION—773**

**TRANSFER PROGRAM**

**LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS**

<table>
<thead>
<tr>
<th>California State University - Dominguez Hills</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 111 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 100 Introduction to Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 101 Fundamentals of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>BUSA 102 Fundamentals of Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>CIS 101 Introduction to Business Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECON 201 Principles</td>
<td>3</td>
</tr>
<tr>
<td>ECON 202 Principles</td>
<td>3</td>
</tr>
</tbody>
</table>

Plus, a transfer level Math course from General Education recommended Math 112, 115, 116.

<table>
<thead>
<tr>
<th>California State University - Fullerton</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 113 Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 100 Introduction to Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 101 Fundamentals of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>BUSA 102 Fundamentals of Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>BUSA 133 Spreadsheet Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>CIS 101 Introduction to Business Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECON 201 Principles</td>
<td>3</td>
</tr>
<tr>
<td>ECON 202 Principles</td>
<td>3</td>
</tr>
<tr>
<td>MATH 116 Calculus for Managerial, Biological, and Social Sciences</td>
<td>4</td>
</tr>
</tbody>
</table>

One additional Social Science course from any course in Area D.
3 of the Cal State University General Education Requirements. CSUF also requires a lower division business writing course not offered at Cerritos College.

<table>
<thead>
<tr>
<th>California State University - Los Angeles</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 111 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 100 Introduction to Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 101 Fundamentals of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>BUSA 102 Fundamentals of Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>CIS 101 Introduction to Business Computer Information Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>California State University - Long Beach</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 111 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 100 Introduction to Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 101 Fundamentals of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>BUSA 102 Fundamentals of Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>CIS 101 Introduction to Business Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECON 201 Principles</td>
<td>3</td>
</tr>
<tr>
<td>ECON 202 Principles</td>
<td>3</td>
</tr>
<tr>
<td>MATH 115 Finite Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>MATH 116 Calculus for Managerial, Biological, and Social Sciences</td>
<td>4</td>
</tr>
</tbody>
</table>

Every Business Administration major at CSULB must take either PHIL 106 (Logic) or PHIL 102 (Ethics). If you plan to specialize in MIS, you must take PHIL 106. If you plan on specialize in Accounting you must take PHIL 102. Specialists in Accounting must take a course in Anthropology, Psychology, or Sociology.

<table>
<thead>
<tr>
<th>California State Polytechnic University - Pomona</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 111 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 100 Introduction to Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 101 Fundamentals of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>BUSA 102 Fundamentals of Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>CIS 101 Introduction to Business Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECON 201 Principles</td>
<td>3</td>
</tr>
<tr>
<td>ECON 202 Principles</td>
<td>3</td>
</tr>
<tr>
<td>MATH 112 Elementary Statistics</td>
<td>4</td>
</tr>
</tbody>
</table>

Majors in Accounting or Finance and Law must take Math 116 and either English 102 or 103.

<table>
<thead>
<tr>
<th>University of Southern California</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSA 100 Introduction to Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 101 Fundamentals of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>BUSA 102 Fundamentals of Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>CIS 101 Introduction to Business Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECON 201 Principles</td>
<td>3</td>
</tr>
<tr>
<td>ECON 202 Principles</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 100 Freshman Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 102 Freshman Composition and Literature</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 103 Critical and Argumentative Writing (3)</td>
<td></td>
</tr>
<tr>
<td>or PHIL 202 Critical Thinking and Argumentative Writing (3)</td>
<td></td>
</tr>
<tr>
<td>MATH 116 Calculus for Managerial, Biological, and Social Sciences</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>University of California - Riverside</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 100 Fundamentals of Business</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 100 Introduction to Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 101 Fundamentals of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>BUSA 102 Fundamentals of Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>ECON 201 Principles</td>
<td>3</td>
</tr>
<tr>
<td>ECON 202 Principles</td>
<td>3</td>
</tr>
<tr>
<td>MATH 102 Analytical Geometry and Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 112 Elementary Statistics</td>
<td>4</td>
</tr>
<tr>
<td>or PSYC 210 Elementary Statistics (4)</td>
<td></td>
</tr>
<tr>
<td>PSYC 220 Research Methods</td>
<td>4</td>
</tr>
</tbody>
</table>

81
ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete the following Common Lower Division Requirements:
BA 111, BUSA 100, BUSA 101, or 113, CIS 101, ECON 201 and 202 and
one transfer level MATH course. Plus, the General Education require-
ments and Proficiencies for the AA Degree and achieve a minimum of
60 degree applicable units.
CAREER OPPORTUNITIES: Career opportunities are numerous
and depend on the specialization selected, ranging from independent
practice as a Certified Public Accountant to corporate leadership in a
multinational company.

See Cerritos College Graduation Requirements.
See State University General Education List

BUSINESS MANAGEMENT—215
CERTIFICATE OF ACHIEVEMENT
DIVISION/DEPARTMENT REQUIREMENTS: UNITS
BA 100 Fundamentals of Business 3
BA 101 International Business 3
BA 107 Human Relations in Business 3
BA 111 Business Law 3
BA 115 Management-Business 3
or BA 53 Small Business Management (3)
BA 117 Introduction to Supervision 3
BA 171-174 Business Administration Occupational Work
Experience 1-4

TOTAL CERTIFICATE REQUIREMENTS: 19/22

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in
Business Management. Select 15 units from the following: BA 50 or
CIS 101 or CIS 102, BA 106, BA 109, BA 112 BUSA 100 or BUSA 101,
and BCOM 147 and complete general education requirements to
achieve a minimum of 60 units.
NOTE: Although many of these courses are transferable, this
Certificate/A.A. Degree is nontransferable.
CAREER OPPORTUNITIES: Prepares the student for a variety of
career opportunities in business, industry, government and self-
employment.

Please see Business Counselors or the respective department for
additional alternatives.
See Cerritos College Graduation Requirements.

BUSINESS MANAGEMENT SPECIALIZATION
An A.A. Degree in Business Management with a specialization
may be achieved by taking two courses from one of the following cat-
gories:
1. Human Resources
   BA 105 and PSYC 101 or SOC 101
2. Small Business Ownership
   BA 53 and BA 54, BA 110 or BA 101
3. Legal Management
   BA 113 and BA 51
4. Supermarket Management
   BA 203 and BA 119
5. Banking Management
   BA 200 and BA 201

EMPLOYMENT DEVELOPMENT—227
CERTIFICATE OF ACHIEVEMENT
DIVISION/DEPARTMENT REQUIREMENTS: UNITS
1. COMPLETION OF 9 UNITS IN COURSES SELECTED FROM
   ONE OF THE DEPARTMENTS LISTED BELOW:
   a. Business Accounting/Finance
   b. Business Administration
   c. Business Administrative Support Systems/Business
      Communications
   d. Business Court Reporting
   e. Business Paralegal
   f. Business Real Estate
2. COMPLETION OF 12 UNITS OF OCCUPATIONAL WORK
   EXPERIENCE COURSES IN THE SAME OCCUPATIONAL
   DISCIPLINE AS LISTED ABOVE. (REQUIREMENT: CON-
   CURRENT ENROLLMENT IN ONE 4-UNIT WORK
   EXPERIENCE COURSE AND ONE 3-UNIT COURSE FROM
   DEPARTMENT SELECTED.)

EXAMPLE:
(Using the Business Administration Department)
BA 100 Fundamentals of Business 3
BA 174 *Business Administration Occupational Work
   Experience 4
BA 107 Human Relations in Business 3
BA 174 *Business Administration Occupational Work
   Experience 4
BA 111 Business Law 3
BA 174 *Business Administration Occupational Work
   Experience 4

TOTAL CERTIFICATE REQUIREMENTS: 21

*This program permits 12 units of credit to be earned on the job.
The student must work at least 20 hours per week in a related industry.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in
Business Employment Development. Complete BA 101, BA 107, BA
111, BA 112, BA 115 or 53, BA 121 or BA 110 or BA 114, and BCOM
147 and complete general education requirements to achieve a min-
imum of 60 units.

NOTE: Although many of these courses are transferable, this
Certificate/A.A. Degree is nontransferable.
CAREER OPPORTUNITIES: Prepares the student for a variety of
career opportunities in business, industry, government, and self-
employment.

Please see Business Counselors or the respective department for
additional alternatives.
See Cerritos College Graduation Requirements.
### Management Development Merchandising—228

**Certificate of Achievement**

<table>
<thead>
<tr>
<th>Division/Department Requirements</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 50 Business Math</td>
<td>3</td>
</tr>
<tr>
<td>BA 54 Retail Display</td>
<td>3</td>
</tr>
<tr>
<td>BA 110 Advertising</td>
<td>3</td>
</tr>
<tr>
<td>BA 118 Management - Retailing</td>
<td>3</td>
</tr>
<tr>
<td>BA 123 Fundamentals of Retailing</td>
<td>3</td>
</tr>
<tr>
<td>BA 174 * Business Administration Occupational Work Experience</td>
<td>4</td>
</tr>
<tr>
<td>BA 174 * Business Administration Occupational Work Experience</td>
<td>4</td>
</tr>
<tr>
<td>BA 174 * Business Administration Occupational Work Experience</td>
<td>4</td>
</tr>
<tr>
<td>BA 174 * Business Administration Occupational Work Experience</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Certificate Requirements:** 31

**Associate in Arts Degree Requirements:**

- Meet the requirements for a Certificate of Achievement in Business Merchandising. Complete nine units of Business Division electives and complete general education requirements to achieve a minimum of 60 units.
- (Highly recommend completion of BCOM 147.)
- *This is a program that permits 16 units of credit to be earned on the job. The student must work at least 20 hours per week in a related industry.*
- **Note:** Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business Counselors or the respective department for additional alternatives.

See Cerritos College Graduation Requirements.

### Business Management—216

**Business Management—Supermarket Department Award—16/19 Units**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 107 Human Relations in Business</td>
<td>3</td>
</tr>
<tr>
<td>BA 114 Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BA 115 ManagementBusiness</td>
<td>3</td>
</tr>
<tr>
<td>BA 123 ManagementRetailing</td>
<td>3</td>
</tr>
<tr>
<td>BA 171/174 Business Administration Occupational Work Experience</td>
<td>1-4</td>
</tr>
<tr>
<td>BA 203 ManagementDepartment Operations</td>
<td>3</td>
</tr>
</tbody>
</table>

**Certificate of Achievement—31/34 units**

In addition to the 16/19 units required for the Department Award, choose additional 15 units from the following for a Certificate of Achievement:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 50 Business Math</td>
<td>3</td>
</tr>
<tr>
<td>BA 56 Motivation in Management</td>
<td>3</td>
</tr>
<tr>
<td>BA 110 Advertising</td>
<td>3</td>
</tr>
<tr>
<td>BA 111 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BA 119 Management-Supermarket</td>
<td>3</td>
</tr>
<tr>
<td>BA 120 Management-Accounting and Internal Control</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 241 Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>CIS 101 Introduction to Business Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 102 Introduction to Microcomputer Systems for Business</td>
<td>3</td>
</tr>
<tr>
<td>BCOM 148 Effective Business Presentations</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Certificate Requirements:** 31/34

**Associate in Arts Degree Requirements:**

- Meet the requirements for a Certificate of Achievement in Business Management-Supermarket. Complete general education requirements and electives to achieve a minimum of 60 units. (Highly recommend completion of BCOM 147.)
- **Note:** Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department for additional alternatives.

See Cerritos College Graduation Requirements.
BCOM 148 Effective Business Presentations 3
CIS 101 Introduction to Business Computer Information Systems 3

TOTAL CERTIFICATE REQUIREMENTS: 22/25

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in Business Supervision and complete general education requirements to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable. Please see Business Counselors or the respective department for additional alternatives.

BUSINESS PRODUCTION AND INVENTORY MANAGEMENT—226
COURSE COMPLETION CERTIFICATE - 3 semester units

PRODUCTION AND INVENTORY MANAGEMENT DEPARTMENTAL CERTIFICATE - 18 semester units

CERTIFICATE OF ACHIEVEMENT - 28/31 semester units

BUSINESS PRODUCTION AND INVENTORY MANAGEMENT CERTIFICATE - 18 units

DIVISION/DEPARTMENT REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 57</td>
<td>Inventory Management</td>
<td>3</td>
</tr>
<tr>
<td>BA 58</td>
<td>Just-In-Time Inventory Management</td>
<td>3</td>
</tr>
<tr>
<td>BA 59</td>
<td>Material Requirements Planning (MRP)</td>
<td>3</td>
</tr>
<tr>
<td>BA 60</td>
<td>Master Scheduling</td>
<td>3</td>
</tr>
<tr>
<td>BA 206</td>
<td>Production Activity Control</td>
<td>3</td>
</tr>
<tr>
<td>BA 207</td>
<td>Capacity Management</td>
<td>3</td>
</tr>
</tbody>
</table>

CERTIFICATE OF ACHIEVEMENT - 28/31 units

Courses required for Certificate of Achievement in addition to the above:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 101</td>
<td>Introduction to Business Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>BA 100</td>
<td>Fundamentals of Business</td>
<td>3</td>
</tr>
<tr>
<td>BA 107</td>
<td>Human Relations in Business</td>
<td>3</td>
</tr>
<tr>
<td>BA 171-174</td>
<td>Business Administration Occupational Work Experience</td>
<td>1-4</td>
</tr>
</tbody>
</table>

TOTAL CERTIFICATE REQUIREMENTS: 28/31

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in Production and Inventory Management and complete the general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable. Please see Business counselors or the respective department for additional alternatives.

LEGAL SECRETARIAL PROGRAM

LEGAL SECRETARY—251
CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCOM 147</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BCOM 152</td>
<td>Job Search in the Business Field</td>
<td>1.5</td>
</tr>
<tr>
<td>BASS 80</td>
<td>Processing Law Office Documents</td>
<td>2</td>
</tr>
<tr>
<td>BASS 81</td>
<td>Legal Office Procedures</td>
<td>4</td>
</tr>
<tr>
<td>BASS 83</td>
<td>Legal Office Terminology/Machine Transcription</td>
<td>4</td>
</tr>
<tr>
<td>BASS 108</td>
<td>WordPerfect for Windows</td>
<td>3</td>
</tr>
<tr>
<td>or BASS 112</td>
<td>Microsoft Word For Windows</td>
<td>3</td>
</tr>
<tr>
<td>BASS 133</td>
<td>Intermediate Typing/Keyboarding</td>
<td>3</td>
</tr>
<tr>
<td>BASS 135</td>
<td>Typewriting Speed/Control Building</td>
<td>1</td>
</tr>
<tr>
<td>BASS 162</td>
<td>Business Spelling and Proofreading Skills</td>
<td>3</td>
</tr>
<tr>
<td>BL 100</td>
<td>Introduction to California Civil Procedures</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL CERTIFICATE REQUIREMENTS: 27.5

ASSOCIATE IN ARTS REQUIREMENT:
Meet the requirements for a Certificate of Achievement in Legal Secretary - 251 and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable. Please see a Business counselor or the respective department chairperson for additional alternatives.

LEGAL TRANSCRIPTIONIST—250
COMPLETION OF ALL THE REQUIRED COURSES LISTED IN LEGAL SECRETARY-251 AND ONE ADDITIONAL COURSE LISTED BELOW:

Choose three units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASS 50</td>
<td>Advanced WordPerfect for Windows</td>
<td>3</td>
</tr>
<tr>
<td>BASS 51</td>
<td>Advanced Microsoft Word for Windows</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL CERTIFICATE REQUIREMENTS: 30.5

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in Legal Transcriptionist - 250 and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable. Please see Business counselors or the respective department for additional alternatives.

LEGAL SECRETARIAL PROGRAM/BILINGUAL

LEGAL SECRETARY/BILINGUAL—259
CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCOM 147</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BCOM 152</td>
<td>Job Search in the Business Field</td>
<td>1.5</td>
</tr>
<tr>
<td>BASS 80</td>
<td>Processing Law Office Documents</td>
<td>2</td>
</tr>
<tr>
<td>BASS 81</td>
<td>Legal Office Procedures</td>
<td>4</td>
</tr>
</tbody>
</table>

TOTAL CERTIFICATE REQUIREMENTS: 18
ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in General Office - 253. Complete general education requirements and electives to achieve a minimum of 60 units.
NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.
Please see Business counselors or the respective department for additional alternatives.
See Cerritos College Graduation Requirements.

RECEPTIONIST
CERTIFICATE OF COMPLETION

DIVISION/DEPARTMENT REQUIREMENTS UNITS
BCOM 152 Job Search in the Business Field 1.5
BASS 60 Telephone Techniques/Customer Service 1
BASS 131 Beginning Typing/Keyboarding 3
or BASS 61 Typing/Keyboarding Review (2)
BASS 161 Principles of Filing 1
BASS 162 Business Spelling and Proofreading Skills 3
TOTAL CERTIFICATE REQUIREMENTS: 5.5/6.5

NOTE: Although many of these courses are transferable, this Certificate of Completion is nontransferable.
Please see Business counselors or the respective department for additional alternatives.
See Cerritos College Graduation Requirements.

TRANSCRIPTIONIST—266
CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS UNITS
BCOM 46 Business Communications 3
BCOM 147 Business Communications 3
BCOM 152 Job Search in the Business Field 1.5
BASS 50 Advanced WordPerfect for Windows 3
or BASS 51 Advanced Microsoft Word for Windows (3)
BASS 108 WordPerfect for Windows 3
or BASS 112 Microsoft Word for Windows (3)
BASS 131 Beginning Typing/Keyboarding 3
or BASS 61 Typing/Keyboarding Review (2)
BASS 133 Intermediate Typing/Keyboarding 3
BASS 135 Typewriting Speed/Control Building (Two 9-week classes) 2
BASS 162 Business Spelling and Proofreading Skills 3
BASS 163 Machine Transcription 4
TOTAL CERTIFICATE REQUIREMENTS: 27.5/28.5

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in Transcriptionist - 266. Complete general education requirements and electives to achieve a minimum of 60 units.
NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.
Please see Business counselors or the respective department for additional alternatives.
See Cerritos College Graduation Requirements.
CURRICULA, REQUIREMENTS FOR MAJORS, CERTIFICATES AND TRANSFER PROGRAMS

**TYPIST—267**

**CERTIFICATE OF ACHIEVEMENT**

**DIVISION/DEPARTMENT REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCOM 46</td>
<td>3</td>
</tr>
<tr>
<td>BCOM 152</td>
<td>1.5</td>
</tr>
<tr>
<td>BASS 60</td>
<td>1</td>
</tr>
<tr>
<td>BASS 108</td>
<td>3</td>
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<tr>
<td>or BASS 112</td>
<td></td>
</tr>
<tr>
<td>BASS 131</td>
<td>3</td>
</tr>
<tr>
<td>or BASS 61</td>
<td>2</td>
</tr>
<tr>
<td>BASS 135</td>
<td>2</td>
</tr>
<tr>
<td>BASS 161</td>
<td>1</td>
</tr>
<tr>
<td>BASS 162</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL CERTIFICATE REQUIREMENTS:** 17.5/18.5

**ASSOCIATE IN ARTS DEGREE REQUIREMENTS:**

Meet the requirements for a Certificate of Achievement in Typist-267. Complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department for additional alternatives.

**WORD PROCESSOR—257**

**CERTIFICATE OF ACHIEVEMENT**

**DIVISION/DEPARTMENT REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>BCOM 46</td>
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</tr>
<tr>
<td>BCOM 147</td>
<td>3</td>
</tr>
<tr>
<td>BCOM 152</td>
<td>1.5</td>
</tr>
<tr>
<td>BASS 50</td>
<td>3</td>
</tr>
<tr>
<td>BASS 108</td>
<td>3</td>
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<tr>
<td>BASS 112</td>
<td></td>
</tr>
<tr>
<td>BASS 133</td>
<td>2</td>
</tr>
<tr>
<td>or BASS 61</td>
<td></td>
</tr>
<tr>
<td>BASS 135</td>
<td>3</td>
</tr>
<tr>
<td>BASS 161</td>
<td>1</td>
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<tr>
<td>BASS 162</td>
<td>3</td>
</tr>
<tr>
<td>BASS 163</td>
<td>4</td>
</tr>
</tbody>
</table>

**TOTAL CERTIFICATE REQUIREMENTS:** 34.5/35.5

**ASSOCIATE IN ARTS DEGREE REQUIREMENTS:**

Meet the requirements for a Certificate of Achievement in Word Processing - 257. Complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department for additional alternatives.

**SECRETARIAL PROGRAM**

**SECRETARY—252**

**CERTIFICATE OF ACHIEVEMENT**

**DIVISION/DEPARTMENT REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCOM 147</td>
<td>3</td>
</tr>
<tr>
<td>BCOM 152</td>
<td>1.5</td>
</tr>
<tr>
<td>BASS 108</td>
<td>3</td>
</tr>
<tr>
<td>or BASS 112</td>
<td></td>
</tr>
<tr>
<td>BASS 114</td>
<td>3</td>
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<tr>
<td>BASS 133</td>
<td>3</td>
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<td>BASS 135</td>
<td>2</td>
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<td>BASS 155</td>
<td>4</td>
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<tr>
<td>BASS 161</td>
<td>1</td>
</tr>
<tr>
<td>BASS 162</td>
<td>3</td>
</tr>
<tr>
<td>BASS 163</td>
<td>4</td>
</tr>
</tbody>
</table>

**TOTAL CERTIFICATE REQUIREMENTS:** 27.5

**ASSOCIATE IN ARTS DEGREE REQUIREMENTS:**

Meet the requirements for a Certificate of Achievement in Secretary - 252 and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department chairperson for additional alternatives.

**SECRETARY/ADMINISTRATIVE ASSISTANT—265**

**CERTIFICATE OF ACHIEVEMENT**

**DIVISION/DEPARTMENT REQUIREMENTS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BCOM 147</td>
<td>3</td>
</tr>
<tr>
<td>BCOM 152</td>
<td>3</td>
</tr>
<tr>
<td>BASS 50</td>
<td>3</td>
</tr>
<tr>
<td>BASS 108</td>
<td>3</td>
</tr>
<tr>
<td>BASS 112</td>
<td></td>
</tr>
<tr>
<td>BASS 133</td>
<td>2</td>
</tr>
<tr>
<td>or BASS 61</td>
<td></td>
</tr>
<tr>
<td>BASS 135</td>
<td>3</td>
</tr>
<tr>
<td>BASS 161</td>
<td>1</td>
</tr>
<tr>
<td>BASS 162</td>
<td>3</td>
</tr>
<tr>
<td>BASS 163</td>
<td>4</td>
</tr>
</tbody>
</table>

**TOTAL CERTIFICATE REQUIREMENTS:** 30.5

**ASSOCIATE IN ARTS DEGREE REQUIREMENTS:**

Meet the requirements for a Certificate of Achievement in Secretary/Administrative Assistant - 265 and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department chairperson for additional alternatives.
EXECUTIVE SECRETARY/ADMINISTRATIVE ASSISTANT—248

CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS

Completion of all the required courses listed in Secretary-252 and additional courses listed below:

- BASS 108 WordPerfect for Windows 3
- BASS 110 Desktop Publishing-WordPerfect for Windows 1.5
  or BASS 116 Desktop Publishing-Word for Windows (1.5)
- BASS 112 Microsoft Word for Windows 3

Choose three units from the following:

- BASS 50 Advanced WordPerfect for Windows 3
- BASS 51 Advanced Microsoft Word for Windows 3

TOTAL CERTIFICATE REQUIREMENTS: 38

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Executive Secretary/Administrative Assistant - 248 and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department chairperson for additional alternatives.

MEDICAL TRANSCRIPTIONIST—247

CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS

- BCOM 147 Business Communications 3
- BCOM 152 Job Search in the Business Field 1.5
- BASS 70 Medical Machine Transcription 4
- BASS 108 WordPerfect for Windows 3
  or BASS 112 Microsoft Word for Windows (3)
- BASS 133 Intermediate Typing/Keyboarding 3
- BASS 135 Typewriting Speed/Control Building 1
- BASS 162 Business Spelling and Proofreading Skills 3
- MA 161 Medical Terminology 3

TOTAL CERTIFICATE REQUIREMENTS: 21.5

OPTIONAL SPECIALTIES

Completion of all the courses listed in Medical Transcriptionist - 247 and additional courses listed below:

SECRETARY - MEDICAL ENVIRONMENT

- BASS 71 Computers in the Medical Office 3
- BASS 155 Administrative Secretarial Procedures 4
- BASS 161 Principles of Filing 1

BILINGUAL SECRETARY - MEDICAL ENVIRONMENT

- BASS 71 Computers in the Medical Office 3
- BASS 155 Administrative Secretarial Procedures 4
- BASS 161 Principles of Filing 1
- SPAN 223 Spanish for Careers 3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Medical Transcriptionist - 247 and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department for additional alternatives.

BUSINESS LEGAL PROGRAM

PARALEGAL—233

ASSOCIATE IN ARTS DEGREE

UNITS

Section A - Legal Specialty Core Requirements:

- BL 56 Introduction to Computerized Legal Software 3
- BL 100 Introduction to California Civil Procedures 3
- BL 101 Introduction to Law 3
- BL 102 Advanced California Civil Procedures 3
  or BL 113 Fundamentals of Alternate Dispute Resolutions (3)
- BL 103 Legal Research 3
- BL 107 Probate Procedures 3
  or BL 108 Family Law Procedures (3)
- BL 120 Legal Ethics 1.5
  or BL 172 Business Paralegal Occupational Work Experience (2)

9.5/20

Section B - Legal Specialty Courses - 9 Units Required:

- BL 102 Advanced California Civil Procedures 3
- BL 104 Advanced Legal Research 3
- BL 105 Introduction to Federal and California Employment, Labor, and Workers’ Compensation Law 3
- BL 106 Bankruptcy Law 3
- BL 107 Probate Procedures 3
- BL 108 Family Law Procedures 3
- BL 112 Estate Planning for the Paralegal 3
- BL 113 Fundamentals of Alternate Dispute Resolutions 3
- BL 115 Elder Law 3
- BL 230 Corporate Law 3

9

Section C - Legal Electives - 4 Units Required:

- BA 111 Business Law 3
- BL 52 Law Office Management 3
- BL 57 Legal Document Production 3
- BL 114 Law on the Internet 1.5
- BL 174 Business Paralegal Occupational Work Experience 4
- BL 220 Landlord and Tenant Law 3
- BL 240 Tort Law 1.5
- BL 250 Legal Interviewing 1.5
- BUSR 125 Legal Aspects of Real Estate 3

4

TOTAL REQUIREMENTS MUST BE A MINIMUM OF 32.5/33

87
Complete the general education requirements to achieve a minimum of 60 units for an A.A. Degree in Paralegal. General Education courses must meet the American Bar Association Requirements. No course may be taken as “Credit by Exam.”

**THIS PROGRAM IS APPROVED BY THE AMERICAN BAR ASSOCIATION**

**PARALEGAL SPECIALTY REQUIREMENTS**

In order to obtain a paralegal specialty, the student must complete the Paralegal A.A. degree. The 7.5-12 units for the specialty may come from the Paralegal A.A. degree or from additional courses as outlined below:

**OPTIONAL SPECIALTIES**

**COMMERCIAL**
- BL 106 Bankruptcy Law 3
- BL 220 Landlord and Tenant Law 3
- BL 230 Corporate Law 3
- BUSR 125 Legal Aspects of Real Estate 3

**CRIMINAL**
- AJ 102 Concepts of Criminal Law 3
- AJ 103 Criminal Procedures 3
- AJ 202 Substantive Law 3

**PROBATE & ESTATE PLANNING**
- BL 107 Probate Procedures 3
- BL 112 Estate Planning for the Paralegal 3
- BUSR 125 Legal Aspects of Real Estate 3

**LITIGATION**
- BL 102 Advanced California Civil Procedures 3
- BL 104 Advanced Legal Research 3
- BL 113 Fundamentals of Alternate Dispute Resolutions 3

**FAMILY LAW**
- BL 102 Advanced California Civil Procedures 3
- BL 104 Advanced Legal Research 3
- BL 108 Family Law Procedures 3

**LEGAL OFFICE PROCEDURES**
- BL 52 Law Office Management 3
- BL 57 Legal Document Production 3
- BL 250 Legal Interviewing 1.5

**PARALEGAL CERTIFICATE:**
A student may earn a Paralegal Certificate if the student has already completed an A.A. degree or B.A. degree prior to taking any courses applied to the Paralegal Certificate. The Paralegal Certificate is obtained by completing 21 units of any combination of paralegal courses listed in Section A. All 21 units must be taken at Cerritos College.

Students must consult with the Paralegal or Counseling Department prior to entering the certificate program. Any Business Legal courses which were taken prior to the completion of the student’s requisite A.A. degree will not be counted as part of the certificate units.

**BUSINESS OPPORTUNITIES:** Escrow Secretary (203.382-022), File Clerk (206.362-010), Insurance Clerk (219.387-014), Legal Assistant (119.267-022), Paralegal (119.267-026), Legal Secretary (201.362-010).

**BUSINESS LEGAL MINOR**

**CERTIFICATE OF COMPLETION (9 UNITS)**

The Business Legal Minor may be obtained by completing three of the following core courses with a grade of Credit or “C” or higher: BL 101, Introduction to Law; BA 111, Business Law; BA 112, Business Law; BA 113, Legal Environment of Business. Upon receiving your Certificate of Achievement or A.A. degree, a statement can be placed on your official transcript that you have completed the requirements for a Business Legal Minor.

A separate certification of completion of the requirements for a Business Legal Minor can also be issued. Check with the Business Administration or Paralegal Department for more information.

**CAREER OPPORTUNITIES:** This minor combined with your major provides legal knowledge essential in business, in private industry, and in self-employment.

**BUSINESS COURT REPORTING/ COMPUTERIZED SHORTHAND—235**

The Court Reporters Board of California issues a certificate upon successful completion of the following requirements and passing of the state examination.

<table>
<thead>
<tr>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocabulary</td>
</tr>
<tr>
<td>English</td>
</tr>
<tr>
<td>Medical</td>
</tr>
<tr>
<td>Legal</td>
</tr>
<tr>
<td>Transcript Procedures</td>
</tr>
<tr>
<td>Apprenticeship Training</td>
</tr>
<tr>
<td>BUSC 114 Medical Terminology for Machine Shorthand</td>
</tr>
<tr>
<td>BUSC 115 Medical Shorthand for Court Reporters</td>
</tr>
<tr>
<td>BUSC 118 Deposition Procedures, Codes &amp; Ethics</td>
</tr>
<tr>
<td>BUSC 119A Beginning Computer-Aided Transcription</td>
</tr>
<tr>
<td>BUSC 119B Intermediate Computer-Aided Transcription</td>
</tr>
<tr>
<td>BUSC 119C Advanced Computer-Aided Transcription</td>
</tr>
<tr>
<td>BUSC 140 Computerized Shorthand Theory</td>
</tr>
<tr>
<td>BUSC 141 Computerized Shorthand Theory Review/Skill Development</td>
</tr>
<tr>
<td>BUSC 142 Intermediate Computerized Shorthand</td>
</tr>
<tr>
<td>BUSC 143 Computerized Shorthand Speed Building I</td>
</tr>
<tr>
<td>BUSC 144 Computerized Shorthand Speed Building II</td>
</tr>
<tr>
<td>BUSC 145 Computerized Shorthand Speed Building III</td>
</tr>
</tbody>
</table>
BUSC 146 Computerized Shorthand Speed Building  
(140-170 wpm) 108
BUSC 147 Computerized Shorthand Speed Building  
(160-190 wpm) 108
BUSC 148 Computerized Shorthand Speed Building  
(180-210 wpm) 108
BUSC 149 Computerized Shorthand Speed Building  
(190-225 wpm) 108
BUSC 192 Transcription Procedures 54
ENGL 107 Vocabulary Building 54
ENGL 108 Vocabulary Building for Professionals 36

Choose from the following courses for a minimum of 135 hours:
BASS 162 Business Spelling and Proofreading Skills 54
BCOM 46 Business Communications 54
BUSC 57A Beginning Aural Language Skills  
for Court Reporters 54
BUSC 57B Advanced Aural Language Skills  
for Court Reporters 54
ENGL 50A English Grammar 54
ENGL 53 Punctuation, Capitalization and Spelling 54

Choose from the following courses for a minimum of 175 hours:
AJ 103 Criminal Procedures 54
BUSC 113 Legal Terminology 72
BUSC 114 Medical Terminology 54
BUSC 116 Introduction to Courtroom Procedures 108
BA 111 Business Law 54
BA 112 Business Law 54
BL 101 Introduction to Law 54

Recommended typing courses:
BASS 131 Beginning Typing/Keyboarding 90
BASS 135 Typewriting Speed/Control Building 54

In order for a person to qualify from a school to take the state licensing examination, the person shall complete a program at a recognized school. For information concerning the minimum requirements that a court reporting program must meet in order to be recognized, contact: The Court Reporters Board of California; 2523 Capitol Oaks Drive, Suite 230, Sacramento, CA 95833; (916) 263-3660.

The Cerritos College Program is approved by the Court Reporters Board of California, 2523 Capitol Oaks Drive, Suite 230, Sacramento, CA 95833. Telephone: (916) 263-3660, Consumer Affairs.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Specific graduation requirements for court reporting students shall include the following minimum standards:
a) The student shall pass three 5-minute tests with 95% accuracy at each of the following speeds: 225 words per minute testimony (two-voice), 200 words per minute jury charge, and 180 words per minute literary.
b) The student shall pass at least two 5-minute time writings in keyboarding at a minimum of 60 gross words per minute with a maximum of 5 errors.
c) The student shall complete at least 50 verified hours of internship.
Achieve the minimum of 225 wpm shorthand speed and 60 net wpm typing speed.
Complete general education requirements and electives to achieve a minimum of 60 units. Plus Business courses as follows:
CLASSROOM CAPTIONING
STENO INTERPRETING - COURT REPORTING METHOD—236
CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS UNITS
BUSC 57B Advanced Aural Language Skills for Court Reporters 3
BUSC 113 Legal Terminology 3
BUSC 114 Medical Terminology for Machine Shorthand 3
BUSC 116 Introduction to Courtroom Procedures 4
BUSC 119A Beginning Computer-Aided Transcription 2
BUSC 119B Intermediate Computer-Aided Transcription 2
BUSC 119C Advanced Computer-Aided Transcription 2
BUSC 119D Basic Concepts of Realtime 2
BUSC 139 Exploring Career Opportunities in Court Reporting 1
*BUSC 147 Computerized Shorthand Speed Building (160-190 WPM) 3
BUSC 173/174 Business Court Reporting/Computerized Shorthand Occu- pational Work Experience 3/4
BASS 108 WordPerfect for Windows 3
or BASS 112 Microsoft Word for Windows (3)
CIS 121 Introduction to the Internet 1.5
LIB 100 Introduction to Library Resources 1
SL 50 Beginning Sign Language 2

Choose six units from the following:
BASS 162 Business Spelling and Proofreading Skills 3
BCOM 46 Business Communications 3
ENGL 50A English Grammar 3
ENGL 53 Punctuation, Capitalization and Spelling 3
MA 161 Medical Terminology 3

TOTAL CERTIFICATE REQUIREMENTS: 41.5/42.5

*Minimum stenotype speed of 180 wpm.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in Classroom Captioning/Steno Interpreting-Court Reporting Method. Also for an A.A. Degree a student must complete general education requirements and electives to achieve a minimum of 60 units
NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department for additional alternatives.
See Cerritos College Graduation Requirements.

MEDICAL TRANSCRIPTION—COURT REPORTING METHOD—237

CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS UNITS
BUSC 114 Medical Terminology for Machine Shorthand 3
BUSC 115 Medical Shorthand for Court Reporters 4
BUSC 119A Beginning Computer-Aided Transcription 2
BUSC 119B Intermediate Computer-Aided Transcription 2
BUSC 119C Advanced Computer-Aided Transcription 2
BUSC 119E Computer-Aided Medical Dictionary Build 2
BUSC 139 Exploring Career Opportunities in Court Reporting 1
*BUSC 145 Computerized Shorthand Speed Building III 3
BUSC 173/174 Business Court Reporting/Computerized Shorthand Occu- pational Work Experience 3/4
BUSC 190 Medical Transcription I/Court Reporting Method 3
BUSC 191 Medical Transcription II/Court Reporting Method 3
A&P 120 Introduction to Human Anatomy and Physiology 4
BASS 108 WordPerfect for Windows 3
or BASS 112 Microsoft Word for Windows (3)
CIS 121 Introduction to the Internet 1.5
LIB 100 Introduction to Library Resources 1

Choose six units from the following:
BASS 162 Business Spelling and Proofreading Skills 3
BCOM 46 Business Communications 3
ENGL 50A English Grammar 3
ENGL 53 Punctuation, Capitalization and Spelling 3
MA 161 Medical Terminology 3

TOTAL CERTIFICATE REQUIREMENTS: 43.5/44.5

*Minimum stenotype speed of 130 wpm.
*Minimum typing speed of 50 wpm.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in Medical Transcription Court Reporting Method. Also for an A.A. Degree a student must complete general education requirements and electives to achieve a minimum of 60 units
NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department for additional alternatives.
See Cerritos College Graduation Requirements.

PROOFREADER—COURT REPORTING METHOD—264

CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS UNITS
BUSC 57B Advanced Aural Language Skills for Court Reporters 3
BUSC 113 Legal Terminology 3
BUSC 114 Medical Terminology for Machine Shorthand 3
or MA 161 Medical Terminology (3)
BUSC 192 Transcription Procedures 2
BASS 162 Business Spelling and Proofreading Skills 3
BCOM 46 Business Communications 3
CIS 121 Introduction to the Internet 1.5
LIB 100 Introduction to Library Resources 1

TOTAL CERTIFICATE REQUIREMENTS: 19.5

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in Proofreader Court Reporting Method. Also for an A.A. Degree a student must complete general education requirements and electives to achieve a minimum of 60 units
NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department for additional alternatives.
See Cerritos College Graduation Requirements.
### Scopist/Proofreader - Court Reporting Method—260

**Certificate of Achievement**

<table>
<thead>
<tr>
<th>Division/Department Requirements</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSC 57B Advanced Aural Language Skills for Court Reporters</td>
<td>3</td>
</tr>
<tr>
<td>BUSC 113 Legal Terminology</td>
<td>3</td>
</tr>
<tr>
<td>BUSC 114 Medical Terminology for Machine Shorthand</td>
<td>3</td>
</tr>
<tr>
<td>or MA 161 Medical Terminology</td>
<td>(3)</td>
</tr>
<tr>
<td>BUSC 119B Intermediate Computer-Aided Transcription</td>
<td>2</td>
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<tr>
<td>BUSC 119C Advanced Computer-Aided Transcription</td>
<td>2</td>
</tr>
<tr>
<td>*BUSC 141 Computerized Shorthand Theory Review/Skill Development</td>
<td>3</td>
</tr>
<tr>
<td>BUSC 192 Transcription Procedures</td>
<td>2</td>
</tr>
<tr>
<td>CIS 121 Introduction to the Internet</td>
<td>1.5</td>
</tr>
<tr>
<td>LIB 100 Introduction to Library Resources</td>
<td>1</td>
</tr>
</tbody>
</table>

Choose six units from the following:

- BASS 162 Business Spelling and Proofreading Skills | 3 |
- BCOM 46 Business Communications | 3 |
- ENGL 50A English Grammar | 3 |
- ENGL 53 Punctuation, Capitalization and Spelling | 3 |

**Total Certificate Requirements:** 29.5

*No minimum stenotype speed.  
**Minimum typing speed of 35 wpm.*

### Associate in Arts Degree Requirements:

Meet the requirements for a Certificate of Achievement in Scopist/Proofreader Court Reporting Method. Also for an A.A. Degree a student must complete general education requirements and electives to achieve a minimum of 60 units.

**Note:** Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department for additional alternatives.

See Cerritos College Graduation Requirements.

---

### Text Entry

**Business-Court Reporting Method—261**

**Certificate of Achievement**

<table>
<thead>
<tr>
<th>Division/Department Requirements</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUSC 113 Legal Terminology</td>
<td>3</td>
</tr>
<tr>
<td>BUSC 116 Introduction to Courtroom Procedures</td>
<td>4</td>
</tr>
<tr>
<td>BUSC 119A Beginning Computer-Aided Transcription</td>
<td>2</td>
</tr>
<tr>
<td>BUSC 119B Intermediate Computer-Aided Transcription</td>
<td>2</td>
</tr>
<tr>
<td>BUSC 119C Advanced Computer-Aided Transcription</td>
<td>2</td>
</tr>
<tr>
<td>BUSC 119F Computer-Aided Legal Dictionary Build</td>
<td>2</td>
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<tr>
<td>BUSC 139 Exploring Career Opportunities in Court Reporting</td>
<td>1</td>
</tr>
<tr>
<td>*BUSC 146 Computerized Shorthand Speed Building (140-170 wpm)</td>
<td>3</td>
</tr>
<tr>
<td>AJ 101 Introduction to Administration of Justice</td>
<td>3</td>
</tr>
<tr>
<td>AJ 103 Criminal Procedures</td>
<td>3</td>
</tr>
<tr>
<td>AJ 220 Criminal Investigation</td>
<td>3</td>
</tr>
<tr>
<td>BASS 108 WordPerfect for Windows</td>
<td>3</td>
</tr>
<tr>
<td>or BASS 112 Microsoft Word for Windows</td>
<td>(3)</td>
</tr>
<tr>
<td>CIS 121 Introduction to the Internet</td>
<td>1.5</td>
</tr>
<tr>
<td>LIB 100 Introduction to Library Resources</td>
<td>1</td>
</tr>
</tbody>
</table>

Choose six units from the following:

- BASS 162 Business Spelling and Proofreading Skills | 3 |
- BCOM 46 Business Communications | 3 |
- ENGL 50A English Grammar | 3 |
- ENGL 53 Punctuation, Capitalization and Spelling | 3 |

**Total Certificate Requirements:** 39.5

*Minimum stenotype speed of 160 wpm.*

### Associate in Arts Degree Requirements:

Meet the requirements for a Certificate of Achievement in Text Entry Business-Court Reporting Method. Also for an A.A. Degree a student must complete general education requirements and electives to achieve a minimum of 60 units.

**Note:** Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department for additional alternatives.

See Cerritos College Graduation Requirements.
Curricula, Requirements for Majors, Certificates and Transfer Programs

Please see Business counselors or the respective department for additional alternatives.

See Cerritos College Graduation Requirements.

**BUSINESS REAL ESTATE— 270**

- Class Completion Certificate: 3 units
- Real Estate Department Award: 12 units
- Real Estate Certificate of Achievement: 18/20 units
- California Real Estate Certificate: 25/26 units
- A.A. Degree in Business Real Estate: 60 units

**REAL ESTATE DEPARTMENT AWARD - 12/13 UNITS**

- BUSR 101 Real Estate Principles: 3 units
- BUSA 100 Introduction to Accounting: 3 units
- or BUSA 101 Fundamentals of Accounting I: 4 units
- BA 111 Business Law: 3 units
- or BA 121 Sales: 3 units
- or BA 114 Marketing: 3 units
- or BA 110 Advertising: 3 units

**REAL ESTATE CERTIFICATE OF ACHIEVEMENT - 18/20 UNITS**

- BUSR 101 Real Estate Principles: 3 units
- BUSR 173/174 Work Experience/Career Internship: 3/4 units

Choose 12-13 units from the following:

- BUSR 50 Introduction to Real Estate Software: 3 units
- BUSR 52 Mortgage Loan Brokering and Lending: 3 units
- BUSR 120 Real Estate Finance: 3 units
- BUSR 125 Legal Aspects of Real Estate: 3 units
- BUSR 130 Real Estate Practice: 3 units
- BUSR 131 Real Estate Appraisal: 4 units

**CALIFORNIA REAL ESTATE CERTIFICATE - 25/26 UNITS**

- BUSR 101 Real Estate Principles: 3 units
- BUSR 120 Real Estate Finance: 3 units
- BUSR 125 Legal Aspects of Real Estate: 3 units
- BUSR 130 Real Estate Practice: 3 units
- BUSR 131 Real Estate Appraisal: 4 units
- BUSR 160 Real Estate Economics: 3 units

Electives: Select a minimum of 6 units from the following courses:

- BA 111 Business Law: 3 units
- BUSA 100 Introduction to Accounting: 3 units
- BUSA 101 Fundamentals of Accounting I: 4 units
- BUSR 50 Introduction to Real Estate Software: 3 units
- BUSR 52 Mortgage Loan Brokering and Lending: 3 units
- BUSR 173/174 Work Experience/Career Internship: 3/4 units

**ASSOCIATE IN ARTS DEGREE REQUIREMENTS:**

Meet the requirements for the California Real Estate Certificate and complete six units from the following: BA 121, BCOM 147, BUSF 125, BUSR 50, BUSR 51, BUSR 53, BUSR 140, BUSR 151 and complete general education requirements and electives to achieve a minimum of 60 units.

**NOTE:** Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see Business counselors or the respective department for additional alternatives.

**Real Estate License Requirements**

1. **Salesperson’s License:**
   To qualify for a real estate Salesperson’s License, an applicant must have completed a college-level course in Real Estate Principles. Those who must satisfy this new requirement must also (either prior to issuance of the original license or within eighteen months after issuance) complete two additional basic real estate courses selected from among the following:
   - Real Estate Practice
   - Legal Aspects of Real Estate
   - Real Estate Appraisal
   - Real Estate Finance
   - Accounting (any course)
   - Real Estate Economics
   - Business Law
   - Fundamentals of Escrow
   - R.E. Property Management
   - R.E. Office Administration
   - Mortgage Loan Brokering and Lending

2. **Broker’s License:**
   Applicants for a Broker’s License must have completed eight 3-unit college-level courses in addition to the experience requirement*.
   These courses must include the following five courses:
   - Real Estate Practice
   - Legal Aspects of Real Estate
   - Real Estate Appraisal
   - R.E. Economics or Accounting
   - Real Estate Finance
   - The remaining three courses are to be selected from the following:
     - R.E. Office Administration
     - Adv. Legal Aspects of R.E.
     - Advanced R.E. Appraisal
     - Practices of Escrow
     - Real Estate Principles
     - Business Law
     - Property Management
     - Fundamentals of Escrow
     - Mortgage Loan Brokering and Lending

   *Experience requirement is fulfilled by any one of the following:
   1. Two years as a real estate salesperson;
   2. Bachelor’s degree from an accredited college or university; or
   3. Two years employment in related industries such as escrow offices, banks, savings and loans, or building industries.

**NOTE:** Effective 7/1/97, continuing education license renewal may be obtained by completing any one of the following three-unit college credit courses: Real Estate Practice, Legal Aspects of Real Estate, Property Management, and Real Estate Finance. In addition, every four years a three-hour seminar is required in each of the following areas: Ethics, Fair Housing, Agency Relationships, and Trustfund Banking.

Please see Business Counselors or Real Estate Department Chairman for additional licensing information.

**REAL ESTATE SCHOLARSHIPS ARE AVAILABLE**

Please see Business Counselors or Real Estate Department Chairman for further scholarship information.
CHEMISTRY— 625
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DESCRIPTION</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 111</td>
<td>General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 112</td>
<td>General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>MATH 102</td>
<td>Analytic Geometry and Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 103</td>
<td>Analytic Geometry and Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 201</td>
<td>Engineering Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 202</td>
<td>Engineering Physics</td>
<td>4</td>
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</tbody>
</table>

ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University - Dominguez Hills*

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DESCRIPTION</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 205</td>
<td>Quantitative Analysis Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>MATH 220</td>
<td>Analytic Geometry and Calculus III</td>
<td>4</td>
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</table>

California State University - Fullerton*

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>PHYS 203</td>
<td>Engineering Physics</td>
<td>4</td>
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California State University - Long Beach*

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<tr>
<th>COURSE</th>
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<tbody>
<tr>
<td>BIOL 200</td>
<td>Principles of Biology</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 205</td>
<td>Quantitative Analysis Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>MATH 220</td>
<td>Analytic Geometry and Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 203</td>
<td>Engineering Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

Foreign Language: A competence is encouraged in reading scientific German, French, Russian, Chinese or Japanese.

California State University - Los Angeles*

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DESCRIPTION</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 205</td>
<td>Quantitative Analysis Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CIS 178</td>
<td>Programming in Fortran</td>
<td>3</td>
</tr>
<tr>
<td>MATH 220</td>
<td>Analytic Geometry and Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 203</td>
<td>Engineering Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

* The above listed requirements are for a Bachelor in Science Degree.

* See counselor for Bachelor of Arts Degree requirements.

University of California - Irvine

<table>
<thead>
<tr>
<th>COURSE</th>
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<th>UNITS</th>
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</thead>
<tbody>
<tr>
<td>CHEM 205</td>
<td>Quantitative Analysis Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 211</td>
<td>Organic Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 212</td>
<td>Organic Chemistry</td>
<td>5</td>
</tr>
</tbody>
</table>

Also, (4 or 5) transferable units. Courses in Biology, Engineering, Mathematics, Physics, and Computer Science. Courses in basic Physics, Pre-Physics, and Pre-Calculus are not acceptable.

Recommended:

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DESCRIPTION</th>
<th>UNITS</th>
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<tbody>
<tr>
<td>MATH 220</td>
<td>Analytic Geometry and Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 240</td>
<td>Calculus and Differential Equations</td>
<td>4</td>
</tr>
</tbody>
</table>

University of California - Los Angeles

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DESCRIPTION</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 211</td>
<td>Organic Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 212</td>
<td>Organic Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 220</td>
<td>Analytic Geometry and Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 240</td>
<td>Calculus and Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 203</td>
<td>Engineering Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

A Bachelor of Arts Degree in Mexican American Studies is offered at California State University, Los Angeles, Dominguez Hills. A Bachelor of Arts Degree in Chicano/Latino Studies is available at Long Beach. A Bachelor of Arts Degree in Chicano Studies is offered at Fullerton.

Recommended Courses within the Chicano Studies Program:

PSYC 101, SOC 101, SOC 201, ANTH 2, GEOG 1, HIST 31

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Completion of 60 units to include (1) the above required courses, (2) the AA general education requirements, and (3) electives as needed.

CAREER OPPORTUNITIES: Completion of an upper division degree program can lead to employment as an elementary or secondary school teacher, school counselor, resource teacher, community, city, and state agencies; public utilities. This program also leads to advanced study in law, anthropology, and sociology.

See Cerritos College Graduation Requirements.

See State University General Education List.

CHICANO STUDIES— 511
TRANSFER PROGRAM

Chicano Studies is an interdisciplinary program of study which fosters an awareness of the contributions and participation of Mexican Americans in United States society. In its broader applications, the program explores the historical, political, social, and psychological aspects of the Mexican American experience as a minority group.

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DESCRIPTION</th>
<th>UNITS</th>
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<tbody>
<tr>
<td>ART 106</td>
<td>Mexican Art</td>
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<tr>
<td>ENGL 225</td>
<td>Mexican Literature in Translation</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 111</td>
<td>Elementary Spanish for Spanish Speakers</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 112</td>
<td>Elementary Spanish for Spanish Speakers</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 245</td>
<td>Introduction to Mexican American Culture</td>
<td>3</td>
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</tbody>
</table>

* The above listed requirements are for a Bachelor in Science Degree.

* See counselor for Bachelor of Arts Degree requirements.

University of California - Los Angeles

<table>
<thead>
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<td>Calculus and Differential Equations</td>
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</tr>
<tr>
<td>PHYS 203</td>
<td>Engineering Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Completion of 60 units to include (1) the above required courses, (2) the AA general education requirements, and (3) electives as needed.

CAREER OPPORTUNITIES: After transfer to a four-year college or university and completion of a Bachelor's Degree program, graduates qualify for graduate study in Chemistry or Biochemistry, and for careers in teaching, medicine and in industrial and governmental scientific endeavors.

See Cerritos College Graduation Requirements.

See State University General Education List.

CHILD DEVELOPMENT/ EARLY CHILDHOOD— 965

PRE-SCHOOL TEACHER:

VERIFICATION OF COMPLETION (12 UNITS)

The following courses meet the minimum educational requirements under Title 22 (Department of Social Services) to qualify the student to teach in a state licensed preschool or child care program. The student must have taken the courses within the last 5 years and must have attained a grade of "C" or better in each course. In addition, to qualify for this verification, student must complete 3 out of 4 courses at Cerritos College.*

ASSOCIATE IN ARTS DEGREE REQUIREMENTS.

Complete 60 units to include (1) the above required courses and (2) Associate in arts Degree general education requirements.
### Preschool Director: Verification of Completion (15 Units)

The following courses meet the minimum educational requirements under Title 22 (Department of Social Services) to qualify the student to be a director of a state licensed preschool or child care program. The student must have taken the courses within the last 5 years and must have attained a grade of “C” or better in each course.

In addition, to qualify for this verification, student must complete 4 out of 5 courses at Cerritos College. For employment, the Department of Social Services will also require four years of teaching experience in a preschool or child care program.

<table>
<thead>
<tr>
<th>COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD 110</td>
<td>Child Development</td>
</tr>
<tr>
<td>CDEC 111</td>
<td>Principles and Practices in Early Childhood Education</td>
</tr>
<tr>
<td>CDEC 112</td>
<td>Early Childhood Education Curriculum</td>
</tr>
<tr>
<td>CDEC 113</td>
<td>The Child, Family, and Community</td>
</tr>
</tbody>
</table>

### School-Age Child Care: Verification of Completion (24 Units)

The following courses meet the minimum educational requirement for the Department of Social Services for school-age child caregivers. The student must have taken the courses within the last 5 years and must have attained a grade of “C” or higher in each course. Six (6) out of eight (8) courses must be completed at Cerritos College.

<table>
<thead>
<tr>
<th>COURSES</th>
<th>UNITS</th>
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<tbody>
<tr>
<td>CD 50</td>
<td>Arts and Crafts for School-Age Children</td>
</tr>
<tr>
<td>CD 110</td>
<td>Child Development</td>
</tr>
<tr>
<td>CD 115</td>
<td>Parent School Partnerships</td>
</tr>
<tr>
<td>CDEC 61</td>
<td>Nutrition, Health, &amp; Safety in Children's Programs</td>
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<tr>
<td>CDEC 63</td>
<td>Early Childhood Experiences in Language Arts and Social Sciences</td>
</tr>
<tr>
<td>CDEC 113</td>
<td>The Child, Family and Community</td>
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<tr>
<td>CDSA 152</td>
<td>School-Age Child Care Supervision and Administration</td>
</tr>
<tr>
<td>CDSA 155</td>
<td>School-Age Child Care Activities</td>
</tr>
<tr>
<td>CDSA 259</td>
<td>School-Age Child Care Practicum</td>
</tr>
</tbody>
</table>

### Infant/Toddler Teacher: Verification of Completion (15 Units)

The following courses meet the minimum education requirement for the Department of Social Services for infant/toddler caregivers. The student must have taken courses within the last 5 years and must have attained a grade of “C” or higher in each course. Four (4) out of five (5) courses must be completed at Cerritos College.

<table>
<thead>
<tr>
<th>COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD 110</td>
<td>Child Development</td>
</tr>
<tr>
<td>CDEC 111</td>
<td>Principles and Practices in Early Childhood Education</td>
</tr>
<tr>
<td>CDIT 50</td>
<td>Infant/Toddler Care Giving</td>
</tr>
</tbody>
</table>

### Family Child Care: Verification of Completion (11 Units)

To qualify for this verification, student must complete 3 out of 4 courses at Cerritos College. The student must have taken the courses within the last five years and must have attained a grade of “C” or higher in each course.

<table>
<thead>
<tr>
<th>COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD 110</td>
<td>Child Development</td>
</tr>
<tr>
<td>CDFC 10</td>
<td>Family Child Care Providers</td>
</tr>
<tr>
<td>CDEC 61</td>
<td>Nutrition, Health &amp; Safety in Children's Programs</td>
</tr>
</tbody>
</table>

Choose one (1) of the following courses:

- CDSA 155 School-Age Child Care Activities | 3 |
- CDEC 111 Principles and Practices in Early Childhood Education | 3 |
- CDIT 50 Infant/Toddler Care Giving | 3 |

### Child Development/Early Childhood Certificate of Achievement

In order to receive the Certificate of Achievement, all courses must be completed with a grade of “C” or higher.

<table>
<thead>
<tr>
<th>COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD 110</td>
<td>Child Development</td>
</tr>
<tr>
<td>CD 124</td>
<td>The Child in a Pluralistic Society</td>
</tr>
<tr>
<td>CD 137</td>
<td>Positive Child Guidance</td>
</tr>
<tr>
<td>CD 138</td>
<td>Observation and Assessment of Childhood Behavior</td>
</tr>
<tr>
<td>CDEC 111</td>
<td>Principles and Practices in Early Childhood Education</td>
</tr>
<tr>
<td>CDEC 112</td>
<td>Early Childhood Education Curriculum</td>
</tr>
<tr>
<td>CDEC 113</td>
<td>The Child, Family, and Community</td>
</tr>
<tr>
<td>CDEC 61</td>
<td>Nutrition, Health, and Safety in Children's Programs</td>
</tr>
<tr>
<td>CDEC 62</td>
<td>Creativity and the Preschool Child</td>
</tr>
<tr>
<td>CDEC 63</td>
<td>Early Childhood Experiences in Language Arts and Social Sciences</td>
</tr>
<tr>
<td>CDEC 64</td>
<td>Early Childhood Education Practicum</td>
</tr>
<tr>
<td>CDEC 65</td>
<td>Music and Movement for Young Children</td>
</tr>
<tr>
<td>CDEC 133</td>
<td>Early Childhood Experiences in Math and Sciences</td>
</tr>
<tr>
<td>CDEC 273</td>
<td>Early Childhood Education</td>
</tr>
<tr>
<td>CDEC 274</td>
<td>Occupational Work Experience</td>
</tr>
</tbody>
</table>

Choose (1) of the following courses:

- CDEC 64 Early Childhood Education Practicum | 3 |
- CDIT 50 Infant/Toddler Care Giving | 3 |
- CDSA 155 School-Age Child Care Activities | 3 |
- CDESE 50 Survey of Special Education | 3 |
- CDEC 230 Adult Supervision in Child Care Programs | 3 |

### Associate in Arts Degree Requirements:

Meet the above requirements for a Certificate of Achievement.

Plus, for an AA Degree, a student must complete PSYCH 101 and general education requirements to achieve a minimum of 60 units.
RECOMMENDED ELECTIVES: CDSE 50, CD 50, CDIT 50, CDSA 155, CDPE 10, EDT 1, EDT 3, EDT 7

See Cerritos College Graduation Requirements.

CHILD DEVELOPMENT/ PRESCHOOL DIRECTOR— 970

CERTIFICATE OF ACHIEVEMENT

To receive a Certificate of Achievement, the student must complete the Certificate of Achievement requirements listed in Child Development/Early Childhood and the following courses:

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DESCRIPTION</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDEC 66</td>
<td>Administration and Supervision of Early Childhood Education Programs</td>
<td>3</td>
</tr>
<tr>
<td>CDEC 67</td>
<td>Advanced Administration and Supervision of Early Childhood Education Programs</td>
<td>3</td>
</tr>
<tr>
<td>CDEC 230</td>
<td>Adult Supervision in Child Care Programs</td>
<td>3</td>
</tr>
</tbody>
</table>

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the above requirements for a Certificate of Achievement. Plus, for an AA Degree, a student must complete PSYCH 101 and general education requirements to achieve a minimum of 60 units.

RECOMMENDED ELECTIVES: CDSE 50, CD 51, CDIT 50, CDSA 155, CDPE 10, EDT 1, EDT 3, EDT 7.

See Cerritos College Graduation Requirements.

*To qualify for credit for verification of completion or the certificate of achievement, courses not completed at Cerritos College must be comparable in content, units, and granted by a college or university accredited by the Western Association of Schools and Colleges.

CHILD DEVELOPMENT/INSTRUCTIONAL AIDE— 969

CERTIFICATE OF ACHIEVEMENT

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DESCRIPTION</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDIA 90</td>
<td>Intro. to Elementary and Secondary Classroom Experiences</td>
<td>3</td>
</tr>
<tr>
<td>CDIA 91</td>
<td>The Child in the Elementary and Secondary School Environment</td>
<td>3</td>
</tr>
<tr>
<td>*CDIA 99</td>
<td>Instructional Aide Practicum</td>
<td>3</td>
</tr>
<tr>
<td>CD 110</td>
<td>Child Development</td>
<td>3</td>
</tr>
<tr>
<td>CD 50</td>
<td>Arts &amp; Crafts for School-Age Children</td>
<td>2</td>
</tr>
<tr>
<td>CD 124</td>
<td>The Child in a Pluralistic Society</td>
<td>3</td>
</tr>
<tr>
<td>CD 137</td>
<td>Positive Child Guidance</td>
<td>1.5</td>
</tr>
<tr>
<td>CD 138</td>
<td>Observation and Assessment of Childhood Behavior</td>
<td>1.5</td>
</tr>
<tr>
<td>ENGL 106</td>
<td>Introduction to Language Study</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 111</td>
<td>Elementary Spanish for Spanish Speakers</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 112</td>
<td>Elementary Spanish for Spanish Speakers</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 245</td>
<td>Intro. to Chicano/Mexican American Culture</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL CERTIFICATE REQUIREMENTS: 36

*Students currently employed as an Instructional Aide enroll in CDIA 73 or CDIA 74.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the above requirements for a Certificate of Achievement for Instructional Aide. Plus, for an A.A. Degree a student must complete electives and general education requirements to achieve a minimum of 60 units.

CAREER OPPORTUNITIES: Employment as an Instructional Aide in a classroom situation.

See Cerritos College Graduation Requirements.

CHILD DEVELOPMENT/ INSTRUCTIONAL AIDE BILINGUAL/ BICULTURAL— 512

CERTIFICATE OF ACHIEVEMENT

The following Instructional Aide Program of Study is a non-transfer program. It has been designed to prepare students for a Certificate of Achievement and/or an Associate in Arts Degree. Students seeking a Bachelor's Degree in order to become a teacher are referred to the BILINGUAL EDUCATION Transfer Program (509)

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DESCRIPTION</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDIA 90</td>
<td>Intro. to Elementary and Secondary Classroom Experiences</td>
<td>3</td>
</tr>
<tr>
<td>CDIA 91</td>
<td>The Child in the Elementary and Secondary School Environment</td>
<td>3</td>
</tr>
<tr>
<td>*CDIA 99</td>
<td>Instructional Aide Practicum</td>
<td>3</td>
</tr>
<tr>
<td>CD 50</td>
<td>Arts and Crafts for School-Age Children</td>
<td>2</td>
</tr>
<tr>
<td>CD 110</td>
<td>Child Development</td>
<td>3</td>
</tr>
<tr>
<td>CD 124</td>
<td>The Child in a Pluralistic Society</td>
<td>3</td>
</tr>
<tr>
<td>CD 137</td>
<td>Positive Child Guidance</td>
<td>1.5</td>
</tr>
<tr>
<td>CD 138</td>
<td>Observation and Assessment of Childhood Behavior</td>
<td>1.5</td>
</tr>
<tr>
<td>ENGL 106</td>
<td>Introduction to Language Study</td>
<td>3</td>
</tr>
<tr>
<td>SPAN 111</td>
<td>Elementary Spanish for Spanish Speakers</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 112</td>
<td>Elementary Spanish for Spanish Speakers</td>
<td>5</td>
</tr>
<tr>
<td>SPAN 245</td>
<td>Intro. to Chicano/Mexican American Culture</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL CERTIFICATE REQUIREMENTS: 36

*Students currently employed as an Instructional Aide enroll in CDIA 73 or CDIA 74.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the above requirements for a Certificate of Achievement in Instructional Aide, (2) complete SPAN 201, and (3) complete the Associate in Arts General Education requirements to achieve a minimum of 60 units.

CAREER OPPORTUNITIES: Employment as an assistant to a certificated teacher in a Bilingual/Bicultural classroom situation. Employment opportunities are increasing as more emphasis is being placed on Bilingual Education.

See Cerritos College Graduation Requirements.

CHILD DEVELOPMENT/ SPECIAL EDUCATION— 966

CERTIFICATE OF ACHIEVEMENT

<table>
<thead>
<tr>
<th>COURSE</th>
<th>DESCRIPTION</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD 50</td>
<td>Arts and Crafts for School-Age Children</td>
<td>2</td>
</tr>
<tr>
<td>CD 110</td>
<td>Child Development</td>
<td>3</td>
</tr>
<tr>
<td>CD 124</td>
<td>The Child in a Pluralistic Society</td>
<td>3</td>
</tr>
</tbody>
</table>
Curricula, Requirements for Majors, Certificates and Transfer Programs

| CD 137 | Positive Child Guidance | 1.5 |
| CD 138 | Observation and Assessment of Childhood Behavior | .5 |
| CDSE 50 | Survey of Special Education | 3 |
| CDSE C133 | Early Childhood Experiences in Math and Sciences | 2 |
| *CDSE 51 | Special Education Environment | 3 |
| SL 50 | Beginning Sign Language | 2 |
| PSYC 101 | General Introductory Psychology | 3 |
| HO 50 | Emergency & Safety Management | 2 |

**TOTAL CERTIFICATE REQUIREMENTS:** 26

*If currently employed as a Special Education Assistant, enroll in CDSE 73 or CDSE 74.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in Special Education Assistant. Plus, for an A.A. Degree, a student must take SL 51, electives and general education requirements to achieve a minimum of 60 units.

CAREER OPPORTUNITIES: Employment as teacher’s assistant with children and adults who are developmentally disabled, physically, neurologically, or emotionally handicapped, etc.

See Cerritos College Graduation Requirements.

**COMPUTER AND INFORMATION SCIENCES PROGRAMS**

**COMPUTER AND INFORMATION SCIENCES OPERATOR—283**

**CERTIFICATE OF ACHIEVEMENT**

<table>
<thead>
<tr>
<th>DIVISION/DEPARTMENT REQUIREMENTS</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 102 Introduction to Microcomputer Systems for Business</td>
<td>3</td>
</tr>
<tr>
<td>or CIS 101 Introduction to Business Computer Information Systems</td>
<td>(3)</td>
</tr>
<tr>
<td>CIS 141 AS/400 Operations</td>
<td>3</td>
</tr>
<tr>
<td>CIS 52* Data Processing Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>CIS 103 Computer Programming Logic</td>
<td>3</td>
</tr>
<tr>
<td>CIS 240 AS/400 Control Language Programming</td>
<td>3</td>
</tr>
<tr>
<td>BCOM 147** Business Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose fifteen units from the following courses:

| CIS 51 | Data Entry | 2 |
| CIS 56 | Microcomputer Disk Operating Systems | 3 |
| CIS 57 | Advanced Topics in Microcomputer Disk Operating Systems | 3 |
| CIS 105 | Windows 95 | 1.5 |
| CIS 121 | Introduction to Internet | 1.5 |
| CIS 140 | Query/400 | 1 |
| CIS 170 | Programming in BASIC | 3 |
| CIS 175 | RPG Programming | 3 |
| CIS 176 | COBOL Programming | 3 |
| CIS 180 | Programming in C/C++ | 3 |
| CIS 195 | Business Data Communications Systems | 3 |
| CIS 201 | Systems Analysis and Design | 3 |
| CIS 207 | SQL Programming | 3 |
| CIS 210 | Local Area Networks | 3 |
| CIS 212 | Microsoft Windows NT | 3 |
| CIS 214 | UNIX | 3 |
| CIS 220 | Windows Programming | 3 |
| CIS 173/174 | BCIS Occupational Work Experience | 3/4 |

**TOTAL CERTIFICATE REQUIREMENTS:** 33

*Meets general education requirement, may substitute MATH 60
**Meets A.A. Degree general education requirements, may substitute ENGL 100

NOTE: CIS 52, 101, 102, or 103 meet A.A. degree general education communication and analytic thinking requirement.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in Computer and Information Sciences Operator and complete general education requirements and electives to achieve a minimum of 60 units.

See Cerritos College Graduation Requirements.

NOTE: Although many of these courses are transferable, this Certificate A.A. Degree is nontransferable.

**COMPUTER AND INFORMATION SCIENCES PROGRAMMER—284**

**CERTIFICATE OF ACHIEVEMENT**

<table>
<thead>
<tr>
<th>DIVISION/DEPARTMENT REQUIREMENTS</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 52* Data Processing Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>CIS 101 Introduction to Business Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>or CIS 102 Introduction to Microcomputer Systems for Business</td>
<td>(3)</td>
</tr>
<tr>
<td>CIS 103 Computer Programming Logic</td>
<td>3</td>
</tr>
<tr>
<td>CIS 179 Visual BASIC Programming</td>
<td>3</td>
</tr>
<tr>
<td>or CIS 180 Programming in C/C++</td>
<td>(3)</td>
</tr>
<tr>
<td>or CIS 182 JAVA Programming</td>
<td>(3.5)</td>
</tr>
<tr>
<td>CIS 175 RPG Programming</td>
<td>3</td>
</tr>
<tr>
<td>or CIS 176 COBOL Programming</td>
<td>(3)</td>
</tr>
<tr>
<td>CIS 207 SQL Programming</td>
<td>3</td>
</tr>
<tr>
<td>or CIS 253 Client/Server Development with Powerbuilder</td>
<td>(3)</td>
</tr>
<tr>
<td>CIS 222 Advanced RPG Programming</td>
<td>3.5</td>
</tr>
<tr>
<td>or CIS 224 Advanced COBOL Programming</td>
<td>(3)</td>
</tr>
<tr>
<td>or CIS 221 Advanced Visual Basic</td>
<td>(3.5)</td>
</tr>
<tr>
<td>or CIS 280 Object-Oriented Programming in C++</td>
<td>(3)</td>
</tr>
<tr>
<td>or CIS 282 Advanced JAVA Programming</td>
<td>(3.5)</td>
</tr>
<tr>
<td>BCOM 147** Business Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose 12 units from the following courses:

| CIS 105 | Windows 95 | 1.5 |
| CIS 121 | Introduction to Internet | 1.5 |
| CIS 125 | JAVA SCRIPT Programming | 1.5 |
| CIS 140 | Query/400 | 1 |
| CIS 141 | AS/400 Operations | 3 |
| CIS 170 | Programming in BASIC | 3 |
| CIS 179 | Visual BASIC Programming | 3 |
| CIS 180 | Programming in C/C++ | 3 |
| CIS 182 | JAVA Programming | 3.5 |
| CIS 195 | Business Data Communications Systems | 3 |
Curricula, Requirements for Majors, Certificates and Transfer Programs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 201</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>CIS 205</td>
<td>Programming in HTML for the World Wide Web</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 207</td>
<td>SQL Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 210</td>
<td>Local Area Networks</td>
<td>3</td>
</tr>
<tr>
<td>CIS 212</td>
<td>Microsoft Windows NT</td>
<td>3</td>
</tr>
<tr>
<td>CIS 214</td>
<td>UNIX</td>
<td>3</td>
</tr>
<tr>
<td>CIS 220</td>
<td>Windows Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 221</td>
<td>Advanced Visual Basic</td>
<td>3.5</td>
</tr>
<tr>
<td>CIS 222</td>
<td>Advanced RPG Programming</td>
<td>3.5</td>
</tr>
<tr>
<td>CIS 224</td>
<td>Advanced COBOL Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 253</td>
<td>Client/Server Development with Powerbuilder</td>
<td>3</td>
</tr>
<tr>
<td>CIS 173/174</td>
<td>BCIS Occupational Work Experience</td>
<td>3(4)</td>
</tr>
<tr>
<td>CIS 280</td>
<td>Object-Oriented Programming in C++</td>
<td>3</td>
</tr>
<tr>
<td>CIS 282</td>
<td>Advanced JAVA Programming</td>
<td>3.5</td>
</tr>
<tr>
<td>CIS 284</td>
<td>CGI and PERL Programming</td>
<td>3.5</td>
</tr>
</tbody>
</table>

**TOTAL CERTIFICATE REQUIREMENTS:** 36/37

*Meets general education requirement, may substitute MATH 60
**Meets general education requirement, may substitute ENGL 100

NOTE: CIS 52, 101, 102, or 103 meet A.A. Degree general education communication and analytic thinking requirement.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Computer and Information Sciences Programmer and complete general education requirements and electives to achieve a minimum of 60 units. See Cerritos College Graduation Requirements.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see counselors or the respective department for additional alternatives.

COMPUTER AND INFORMATION SCIENCES

SYSTEMS ANALYST—285

CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS: UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 52*</td>
<td>Data Processing Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>CIS 53</td>
<td>Microsoft Powerpoint</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 101</td>
<td>Introduction to Business Computer Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>or CIS 102</td>
<td>Introduction to Microcomputer Systems for Business</td>
<td>3</td>
</tr>
<tr>
<td>CIS 103</td>
<td>Computer Programming Logic</td>
<td>3</td>
</tr>
<tr>
<td>CIS 195</td>
<td>Business Data Communications Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 201</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>CIS 251</td>
<td>Advanced Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>CIS 253</td>
<td>Client/Server Development with Powerbuilder</td>
<td>3</td>
</tr>
<tr>
<td>or CIS 155</td>
<td>Microsoft Access</td>
<td>3</td>
</tr>
<tr>
<td>BCOM 147**</td>
<td>Business Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose 6 units from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 56</td>
<td>Microcomputer Disk Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 141</td>
<td>AS/400 Operations</td>
<td>3</td>
</tr>
<tr>
<td>CIS 151</td>
<td>Microsoft Excel</td>
<td>3.5</td>
</tr>
<tr>
<td>CIS 179</td>
<td>Visual BASIC Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 207</td>
<td>SQL Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 210</td>
<td>Local Area Networks</td>
<td>3</td>
</tr>
<tr>
<td>CIS 212</td>
<td>Microsoft Windows NT</td>
<td>3</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Desktop Publishing Microsoft</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 121</td>
<td>Introduction to Internet</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 141</td>
<td>AS/400 Operations</td>
<td>3</td>
</tr>
<tr>
<td>CIS 151</td>
<td>Microsoft Excel</td>
<td>3.5</td>
</tr>
<tr>
<td>CIS 155</td>
<td>Microsoft Access</td>
<td>3</td>
</tr>
<tr>
<td>CIS 175</td>
<td>RPG Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 176</td>
<td>COBOL Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 180</td>
<td>Programming in C/C++</td>
<td>3</td>
</tr>
<tr>
<td>CIS 205</td>
<td>Programming in HTML for the World Wide Web</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 207</td>
<td>SQL Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 210</td>
<td>Local Area Networks</td>
<td>3</td>
</tr>
<tr>
<td>CIS 212</td>
<td>Microsoft Windows NT</td>
<td>3</td>
</tr>
<tr>
<td>CIS 214</td>
<td>UNIX</td>
<td>3</td>
</tr>
<tr>
<td>CIS 220</td>
<td>Windows Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 222</td>
<td>Advanced RPG Programming</td>
<td>3.5</td>
</tr>
<tr>
<td>CIS 224</td>
<td>Advanced COBOL Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 253</td>
<td>Client/Server Development with Powerbuilder</td>
<td>3</td>
</tr>
<tr>
<td>CIS 173/174</td>
<td>BCIS Occupational Work Experience</td>
<td>3(4)</td>
</tr>
<tr>
<td>CIS 280</td>
<td>Object-Oriented Programming in C++</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL CERTIFICATE REQUIREMENTS:** 37.5

*Meets A.A. general education requirement, may substitute MATH 60
**Meets A.A. general education requirement, may substitute ENGL 100

NOTE: CIS 52, 101, 102, or 103 meet A.A. Degree general education communication and analytic thinking.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Meet the requirements for a Certificate of Achievement in Computer and Information Sciences Systems Analyst and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see counselors or the respective department for additional alternatives.

COMPUTER AND INFORMATION SCIENCES

MICROCOMPUTER SPECIALIST—286

CERTIFICATE OF ACHIEVEMENT

DIVISION/DEPARTMENT REQUIREMENTS: UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 52*</td>
<td>Data Processing Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>CIS 53</td>
<td>Microsoft Powerpoint</td>
<td>1.5</td>
</tr>
<tr>
<td>or CIS 110</td>
<td>Introduction to Desktop Publishing Microsoft</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 195</td>
<td>Business Data Communications Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 201</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>CIS 251</td>
<td>Advanced Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>CIS 253</td>
<td>Client/Server Development with Powerbuilder</td>
<td>3</td>
</tr>
<tr>
<td>or CIS 155</td>
<td>Microsoft Access</td>
<td>3</td>
</tr>
<tr>
<td>BCOM 147**</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>CIS 56</td>
<td>Microcomputer Disk Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 102</td>
<td>Introduction to Microcomputer Systems for Business</td>
<td>3</td>
</tr>
<tr>
<td>CIS 103</td>
<td>Computer Programming Logic</td>
<td>3</td>
</tr>
<tr>
<td>CIS 105</td>
<td>Windows 95</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 151</td>
<td>Microsoft Excel</td>
<td>3.5</td>
</tr>
<tr>
<td>CIS 155</td>
<td>Microsoft Access</td>
<td>3</td>
</tr>
<tr>
<td>CIS 179</td>
<td>Visual BASIC Programming</td>
<td>3</td>
</tr>
<tr>
<td>BCOM 147**</td>
<td>Business Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose 6 units from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 56</td>
<td>Microcomputer Disk Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 141</td>
<td>AS/400 Operations</td>
<td>3</td>
</tr>
<tr>
<td>CIS 151</td>
<td>Microsoft Excel</td>
<td>3.5</td>
</tr>
<tr>
<td>CIS 179</td>
<td>Visual BASIC Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 207</td>
<td>SQL Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 210</td>
<td>Local Area Networks</td>
<td>3</td>
</tr>
<tr>
<td>CIS 212</td>
<td>Microsoft Windows NT</td>
<td>3</td>
</tr>
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</table>
Choose 9 units from the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 53</td>
<td>Microsoft Powerpoint</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Desktop Publishing Microsoft Publisher</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 121</td>
<td>Introduction to Internet</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 170</td>
<td>Programming in BASIC</td>
<td>3</td>
</tr>
<tr>
<td>CIS 180</td>
<td>Programming in C/C++</td>
<td>3</td>
</tr>
<tr>
<td>CIS 182</td>
<td>JAVA Programming</td>
<td>3.5</td>
</tr>
<tr>
<td>CIS 195</td>
<td>Business Data Communications Systems</td>
<td>3</td>
</tr>
<tr>
<td>CIS 201</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>CIS 205</td>
<td>Programming in HTML for the World Wide Web</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 210</td>
<td>Local Area Networks</td>
<td>3</td>
</tr>
<tr>
<td>CIS 212</td>
<td>Microsoft Windows NT</td>
<td>3</td>
</tr>
<tr>
<td>CIS 214</td>
<td>UNIX</td>
<td>3</td>
</tr>
<tr>
<td>CIS 220</td>
<td>Windows Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 173/174</td>
<td>BCIS Occupational Work Experience</td>
<td>3/4</td>
</tr>
<tr>
<td>CIS 280</td>
<td>Object-Oriented Programming in C++</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL CERTIFICATE REQUIREMENTS: 36.5

*Meets A.A. Degree general education requirement, may substitute MATH 60
**Meets A.A. Degree general education requirement, may substitute ENGL 100

NOTE: CIS 52, 101, 102, or 103 meet A.A. Degree general education communication and analytical thinking requirement.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for Certificate of Achievement in Computer and Information Sciences Microcomputer Specialist and complete general education requirements and electives to achieve a minimum of 60 units.

NOTE: Although many of these courses are transferable, this Certificate/A.A. Degree is nontransferable.

Please see counselors or the respective department for additional alternatives.

COMPUTER AND INFORMATION SCIENCES IBM AS/400 SPECIALIST—287

CERTIFICATE OF ACHIEVEMENT

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 52*</td>
<td>Data Processing Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>CIS 120</td>
<td>Web Design with Microsoft Frontpage</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 121</td>
<td>Introduction to the Internet</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 125</td>
<td>Javascript Programming</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 155</td>
<td>Microsoft Access</td>
<td>3</td>
</tr>
<tr>
<td>CIS 182</td>
<td>Java Programming</td>
<td>3.5</td>
</tr>
<tr>
<td>CIS 205</td>
<td>Programming in HTML for the World Wide Web</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 284</td>
<td>CGI and PERL Programming</td>
<td>3</td>
</tr>
<tr>
<td>ART 186</td>
<td>Computer Graphics in Art and Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 187</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>BCOM 147**</td>
<td>Business Communications</td>
<td>3</td>
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</table>

Choose 6-6.5 units from the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 53</td>
<td>Microsoft Powerpoint</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 110</td>
<td>Introduction to Desktop Publishing - Microsoft Publisher</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 179</td>
<td>Visual Basic Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 207</td>
<td>SQL Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 280</td>
<td>Object-Oriented Programming in C++</td>
<td>3</td>
</tr>
<tr>
<td>CIS 282</td>
<td>Advanced Java Programming</td>
<td>3.5</td>
</tr>
<tr>
<td>ART 186</td>
<td>Computer Graphics in Art and Design</td>
<td>3</td>
</tr>
<tr>
<td>or ART 187</td>
<td>Design for Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>ART 194</td>
<td>Multimedia Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 195</td>
<td>3D Computer Modeling</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 120</td>
<td>Internet for Journalists</td>
<td>2</td>
</tr>
</tbody>
</table>

TOTAL CERTIFICATE REQUIREMENTS: 34/34.5

*Meets general education requirement, may substitute MATH 60
**Meets A.A. Degree general education requirement, may substitute ENGL 100

NOTE: CIS 52 meets A.A. Degree general education communication and analytical thinking requirement.
ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in Computer and Information Sciences Web Master and complete general education requirements and electives to achieve a minimum of 60 units.
NOTE: Although many of these courses are transferable, this certificate/A.A. Degree is nontransferable.
Please see Business counselors or the respective department for additional alternatives.

COMPUTER SCIENCE—610
TRANSFER PROGRAM
LOWER DIVISION MAJOR REQUIREMENTS
FOR SPECIFIC TRANSFER INSTITUTIONS

NOTE: Computer Science is a rapidly changing field. Contact a Cerritos College Counselor in order to optimize preparation for transfer.

COMMON LOWER DIVISION PREPARATION
FOR THE CALIFORNIA STATE UNIVERSITY
AND UNIVERSITY OF CALIFORNIA

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 102</td>
<td>Analytic Geometry and Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 103</td>
<td>Analytic Geometry and Calculus II</td>
<td>4</td>
</tr>
</tbody>
</table>

California State University - Dominguez Hills
CIS 177 Programing in Pascal                               4
CIS 230 Assembly Programming for Microcomputers             4
CIS 292 Data Structures                                    4
PHYS 201 Engineering Physics                               4
PHYS 202 Engineering Physics                               4

California State University - Long Beach
CIS 180 Programming in C/C++                                3
or CIS 280 Object-Orientated Programming in C++             3
EL 134 Digital Circuits and Computer logic                  3
ENGL 100 Freshman Composition                              3
ENGL 102 Freshman Composition and Literature               3
MATH 220 Analytic Geometry and Calculus III                4
PHYS 201 Engineering Physics                               4
PHYS 202 Engineering Physics                               4

California State University - Los Angeles
CIS 177 Programing in Pascal                                4
CIS 230 Assembly Programming for Microcomputers             4
CIS 292 Data Structures                                    4
MATH 112 Elementary Statistics                             4
PHYS 201 Engineering Physics                               4
PHYS 202 Engineering Physics                               4

California State University - Fullerton
CIS 214 Unix                                              3
CIS 230 Assembly Programming for Microcomputers             4
CIS 280 Object-Orientated Programming in C++                3
CIS 292 Data Structures                                    4
PHYS 201 Engineering Physics                               4
PHYS 202 Engineering Physics                               4
or CHEM 111 General Chemistry                              5
CHEM 112 General Chemistry                                 5
or GEOL 101 The Earth & Environment                         4

ASSOCIATE IN ARTS REQUIREMENTS:
Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18-unit minimum and all AA degree general education requirements for a total of at least 60-units.

CAREER OPPORTUNITIES: Computer science graduates are primarily prepared for the area of software design. Graduates usually are recruited by hardware manufacturers and are then involved in the design of vendor supplied software, such as compilers, operating systems, and utility programs.

See Cerritos College Graduation Requirements.
See State University General Education List.

COSMETOLOGY—880
ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements of a Certificate of Achievement in Cosmetology.
Additional coursework will be necessary to complete Cerritos College Graduation Requirements and achieve the minimum of 60 units.
The cosmetology curriculum consists of a minimum of 1600 clocked hours of cosmetology class work. The curriculum prepares the student for the State Board of Cosmetology Examination.

Students enrolling in the Cosmetology Program should contact the Cosmetology Department or a Cosmetology counselor for information regarding the cost of the kit, uniforms, and books.

Students may complete the Cosmetology Program by enrolling in one of the following plans:

FULL TIME DAYS: The full-time day student may complete the 1600-hour program by (1) two regular semesters and one eight-week summer session over a period of one calendar year, or (2) three regular semesters over a period of one and one-half years.

EVENINGS: Students enrolling in this plan attend class 5:30 p.m.-10:30 p.m. Monday through Thursday. It requires approximately five or six semesters to complete the 1600-hour program.

MAJOR REQUIREMENTS

FULL TIME (8:30 a.m. to 5:00 p.m. Monday through Friday)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COS 50</td>
<td>19.5</td>
</tr>
<tr>
<td>COS 51</td>
<td>19.5</td>
</tr>
<tr>
<td>COS 52</td>
<td>19.5</td>
</tr>
<tr>
<td></td>
<td>58.50</td>
</tr>
</tbody>
</table>

PART TIME EVENING (5:30-10:30 p.m. Monday through Thursday)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COS 60A</td>
<td>10</td>
</tr>
<tr>
<td>COS 60B</td>
<td>10</td>
</tr>
<tr>
<td>COS 61A</td>
<td>10</td>
</tr>
<tr>
<td>COS 61B</td>
<td>10</td>
</tr>
<tr>
<td>COS 62A</td>
<td>10</td>
</tr>
<tr>
<td>COS 62B</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>60</td>
</tr>
</tbody>
</table>

COS 53 may be repeated for a maximum of 16 units as necessary to complete the 1600 hours required by the State Board of Cosmetology.

Employment Opportunities upon Completion of the Program: Beautician or Hair Stylist in Cosmetology.

COURT REPORTING SEE BUSINESS COURT REPORTING

CULINARY ARTS

CHEF’S TRAINING—954

CERTIFICATE OF ACHIEVEMENT PROGRAM

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA 52</td>
<td>9.5</td>
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<tr>
<td>CA 53</td>
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<td>CA 54</td>
<td>9.5</td>
</tr>
<tr>
<td>CA 60</td>
<td>3</td>
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<tr>
<td>CA 101</td>
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</tbody>
</table>

TOTAL CERTIFICATE UNITS: 33.5

ASSOCIATE IN ARTS DEGREE REQUIREMENTS

Meet the above requirements for Certificate of Achievement and HO 151. Plus for an A.A. Degree the student must complete the A.A. Degree general education requirements; and electives to achieve a minimum of 60 units.

CAREER OPPORTUNITIES: Employment as sous chef, chef steward. Also short order cook, pantry person, garde helper, roast cook.

See Cerritos College Graduation Requirements.

CULINARY ARTS

PROFESSIONAL BAKING—955

CERTIFICATE OF ACHIEVEMENT PROGRAM

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA 60</td>
<td>3</td>
</tr>
<tr>
<td>CA 80</td>
<td>4</td>
</tr>
<tr>
<td>CA 81</td>
<td>5</td>
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<td>CA 82</td>
<td>5</td>
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<tr>
<td>CA 85</td>
<td>3</td>
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<td>CA 101</td>
<td>2</td>
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</table>

TOTAL CERTIFICATE UNITS: 22

ASSOCIATE IN ARTS DEGREE REQUIREMENTS

Meet the above requirements for Certificate of Achievement and HO 151. Plus for an A.A. Degree the student must complete the A.A. Degree general education requirements; and electives to achieve a minimum of 60 units.

CAREER OPPORTUNITIES: Employment as a professional baker, pastry chef, pastry cook, and specialty baker.
DANCE—136
TRANSFER PROGRAM
The Dance Department provides a major of study with emphasis in Modern, Jazz and Ballet techniques, composition and performance. It gives the General Education student and the student in closely related areas, experience in dance as an art form.

The following core of courses will provide the dance student with a solid background for upper division work and a transfer curriculum.

COMMON LOWER DIVISION PREPARATION
FOR THE CALIFORNIA STATE UNIVERSITY

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 182A</td>
<td>2</td>
</tr>
<tr>
<td>PE 182B</td>
<td>2</td>
</tr>
<tr>
<td>PE 186A</td>
<td>2</td>
</tr>
<tr>
<td>PE 186B</td>
<td>2</td>
</tr>
<tr>
<td>PE 191</td>
<td>3</td>
</tr>
<tr>
<td>TH 140</td>
<td>2</td>
</tr>
<tr>
<td>TH 141</td>
<td>2</td>
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</tbody>
</table>

LOWER DIVISION MAJOR REQUIREMENTS
FOR SPECIFIC TRANSFER INSTITUTIONS
California State University - Fullerton:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 184</td>
<td>3</td>
</tr>
<tr>
<td>PE 187</td>
<td>2</td>
</tr>
<tr>
<td>PE 188</td>
<td>2</td>
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University of California - Irvine:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>PE 191</td>
<td>3</td>
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</tbody>
</table>

Choreography Emphasis

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>PE 184</td>
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</tr>
<tr>
<td>PE 190</td>
<td>3</td>
</tr>
<tr>
<td>TH 110</td>
<td>3</td>
</tr>
</tbody>
</table>

History Emphasis

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 184</td>
<td>3</td>
</tr>
<tr>
<td>PE 190</td>
<td>3</td>
</tr>
</tbody>
</table>

Performance Emphasis

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 184</td>
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</tr>
<tr>
<td>PE 190</td>
<td>3</td>
</tr>
<tr>
<td>TH 110</td>
<td>3</td>
</tr>
</tbody>
</table>

Teaching Emphasis

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 184</td>
<td>3</td>
</tr>
<tr>
<td>PE 190</td>
<td>3</td>
</tr>
</tbody>
</table>

*STUDENTS WISHING TO MAJOR or MINOR IN DANCE MUST AUDITION FOR PLACEMENT AT EACH OF THE UNIVERSITIES.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all A.A. degree general education requirements for a total of least 60 units.

RECOMMENDED ELECTIVES: PE 184, PE 187, PE 188

CAREER OPPORTUNITIES: Completion of an upper division degree program can lead to employment as a teacher at the secondary, community college or university level in both public and private schools; a performer in dance companies, on television or in dance films/choreographer. Students majoring in such areas as Recreation, Theatre, Physical Education, Fine Arts and Elementary Education would also benefit from the courses within this Dance curriculum.

See Cerritos College Graduation Requirements.

DENTAL ASSISTING—952
Curriculum leading to Certificate of Achievement and eligibility to write both the California State Board Examination as a Registered Dental Assistant and the National Certifying Board Examination as a Certified Dental Assistant.

LENGTH AND KIND OF PROGRAM
The program is three semesters in length (Fall, Spring, and Summer Session). However, students may enter in the Spring Semester by taking selected courses. See the Dental Assisting Counselor.

General education and Dental Assisting classes are scheduled on the College campus and correlated clinical experiences in patient care are obtained at selected dental schools and private dental offices.

Employment in this field requires applicants to have good vision, hearing, and the ability to communicate orally. In addition, applicants must have the ability to comprehend and interpret written information. Applicants must have the dexterity to use small dental instruments to provide dental health care.

ADMISSION REQUIREMENTS
1. Academic Requirements
   a. High School Diploma or satisfactory scores on the General Education Development Examination (given at most Adult Education Centers).
   b. 2.0 Grade Point Average in all High School and College courses or consent of the Dental Assisting Department.
   c. Achieve a satisfactory score in English on the college placement test or clear deficiencies while enrolled in the Dental Assisting Program.

2. Health
   a. Applicant must present evidence of physical fitness. Lab, x-rays, and immunizations records must be completed after acceptance into the program. The student is responsible for all costs incurred.

EXPENSES
Enrollment fee, project fees, uniforms and books will cost approximately $950. Students are responsible for their own living accommodations, including uniform laundry and transportation to extended campuses. In the first semester of the program, immunization for Hepatitis B and other infectious diseases is required. Immunization expenses are the student's responsibility.

ATTENDANCE, SCHOLARSHIP, PROMOTION
Attendance: All students will be expected to observe the attendance requirements as set by the Dental Assisting Department at Cerritos College.

Scholarship and Promotion: In order to remain enrolled in the Program, the student must maintain “C” or better in both theory and clinical courses.

ACCEPTANCE OF STUDENTS AT ADVANCED STANDING
Requests for acceptance into the Program at an advanced level will be evaluated on an individual basis after the applicant has met all College requirements.
**PROCEDURE FOR APPLICATION**  
(To be completed in order as listed)  
1. Complete application for admission to Cerritos College.  
   a. Request two copies of your high school and/or college transcripts. Send one copy to the Health Occupations Division Office and one copy to the Admissions Office.  
   b. Call for an application to the Dental Assisting Program, (310) 860-2451, extension 2550.  
2. Return completed application to the Health Occupations Division, 11110 Alondra Blvd., Norwalk, California 90650.

**CERTIFICATE OF ACHIEVEMENT**

**FIRST SEMESTER**

<table>
<thead>
<tr>
<th>COURSE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA 51</td>
<td>4</td>
</tr>
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<td>DA 52</td>
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<td>DA 53</td>
<td>3</td>
</tr>
<tr>
<td>DA 54</td>
<td>4</td>
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<td></td>
<td>13</td>
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**SECOND SEMESTER**

<table>
<thead>
<tr>
<th>COURSE</th>
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<tbody>
<tr>
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<td>DA 63</td>
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<td>DA 64</td>
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<tr>
<td>DA 65</td>
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**SUMMER SESSION**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>DA 75</td>
<td>5</td>
</tr>
<tr>
<td></td>
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</table>

**TOTAL CERTIFICATE REQUIREMENTS:**

<p>| | |</p>
<table>
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<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>32</td>
</tr>
</tbody>
</table>

To earn a Certificate of Achievement, a student must (a) verify typing proficiency by taking a college typing or computer course with a “C” or better grade or receive a “B” or better in a high school typing or computer course, (b) achieve a satisfactory score in English on the College Placement Test or clear deficiencies, and (c) submit evidence of a current Basic Life Support CPR Certificate to the Dental Assisting counselor.

**ASSOCIATE IN ARTS DEGREE REQUIREMENTS:**

Meet all the requirements as listed for a Certificate of Achievement in Dental Assisting. For an A.A. Degree, a student must also take electives and General Education to achieve a minimum of 60 units. Recommended electives for students interested in Dental Hygiene Program: CHEM 100 MICRO 200 A&P 200, 201, HO 152

**DENTAL HYGIENE**

A dental hygienist is a preventive oral health professional licensed in dental hygiene who provides educational, clinical and therapeutic services supporting total health through the promotion of optimal oral health. The Dental Hygiene Program is a two-year degree program and includes one six-week summer session and one six-week optional session. Upon completion of the program, graduating students will receive an Associate in Arts Degree in Dental Hygiene and will qualify to take the National and State Board Dental Hygiene Examinations. Successful passage of the examinations qualifies the graduate to practice dental hygiene in the State of California.

A dental hygienist may work in such practice settings as: private dental offices and dental clinics; federal, state and local health departments or associated institutions; hospitals and nursing homes; school districts or departments of education; educational programs for dental, dental hygiene and dental assisting students; private business/industry; correctional facilities; private and public centers for pediatric, geriatric and other individuals/groups with special needs; or health maintenance organizations.

Employment in this field requires applicants to have good vision, hearing, and the ability to communicate orally. In addition, applicants must have the ability to comprehend, analyze, and evaluate client’s charts in order to provide appropriate treatment. Applicants must be able to record in patient’s charts and have the dexterity to use small dental instruments to provide dental hygiene care.

**DENTAL HYGIENE PROGRAM REQUIREMENTS**

**I. Prerequisites**

A. High School graduation or equivalent.  
B. Introductory Chemistry 100, Anatomy and Physiology 200, 201, HO 152 and Microbiology 200 and equivalent with a grade of “C” or higher. The acceptance of college work previously completed is at the discretion of Cerritos College and the Dental Hygiene Department. Factors such as elapsed time since the course was completed and grades will be used in determining whether a previously completed course can be accepted towards fulfillment of the graduation requirement. Five years is usually considered maximum elapsed time.

C. A valid adult, child, and infant CPR card including two person CPR is required prior to enrolling in the Dental Hygiene classes and must be kept current.

**II. Required Tests and Information**

A. Cerritos College Assessment Tests Battery  
1. Receive satisfactory scores on the Cerritos College Assessment Tests Battery or achieve clearance by taking the appropriate college courses. A 12th grade reading level is required for admission into the program.

B. Allied Health Professions Admission Test  
1. This test is designed to measure general academic ability and scientific knowledge. The test is given regularly each year at established testing centers. Results must be sent to Cerritos College. A test date must be reserved early enough that test results will be received by the application deadline of April 1.

2. Direct all correspondence and requests for information concerning this test to: Allied Health Professions Admission Test, The Psychological Corporation, 555 Academic Court, San Antonio, Texas 78204 or call (210) 299-1061 or (800) 622-3231.

C. Preliminary Transcript Evaluation  
It is the student’s responsibility to make an appointment with the Counseling Department at Cerritos College to verify equivalent prerequisites and other courses required in the program. The Preliminary Transcript Evaluation must be filled out and signed by a Cerritos College counselor and then submitted to the Health Occupations Division Office along with your DH Application. To complete this procedure, the student must have a student copy of all transcripts from previously attended colleges.
D. Transcripts
1. Send one (1) copy of high school transcript to the Admissions and Records Office.
2. If college work has been completed at Cerritos College, request one (1) official copy of your transcript from the Admissions and Records Office to be sent to the Health Occupations Division Office. Also obtain one (1) copy of current work-in-progress.
3. If applicant is transferring from another college, request three (3) copies of transcripts: one (1) official copy to be sent to the Health Occupations Division, one (1) official copy to the Admissions and Records Office, and one (1) student copy of your transcript to be used during the counseling session. Request two (2) copies of your current work-in-progress: one (1) to be sent to the Health Occupations Division Office, and one (1) to be used during the counseling session.

E. Application forms
Along with the Dental Hygiene application, the applicant must complete a Cerritos College application. This form can be obtained from the Admissions and Records Office.

F. Work Experience
For every related work experience listed, a Verification of Dental Employment form must be completed and mailed to the Health Occupations Division Office. Additional forms are available upon request in the Health Occupations Division Office. Letters of recommendation are not considered.

III. Selection Procedures
A. Academic evaluation
1. All required documents, including Dental Hygiene application, preliminary transcript evaluation, verification of dental employment forms, copy of RDA or RDAEF License and registration, official college transcripts, work-in-progress, and Allied Health Professions Admission Test Scores must be in our possession by April 1.
2. Criteria for selection will be based on the following:
   a. Allied Health Professions Admission Test Scores
   b. GPA in pre-requisites
   c. Overall GPA for all college courses
   d. Additional biological sciences
   e. Related work experience
3. Selection will be based upon academic evaluation, test scores and data obtained from the application forms. Candidates will be notified by mail during the month of May.

B. Health Forms
Applicants must present evidence of physical fitness to succeed in the program. These forms will be issued to those applicants who are accepted into the program. Annual update of immunizations and tuberculosis testing is required and is the financial responsibility of the student.

IV. Expenses
A. See Cerritos College catalog for enrollment and out-of-state resident fees.
B. The student may expect to spend approximately $3500 for books and instruments, $250 for uniforms, and another $1750 for miscellaneous fees and immunizations. Membership in the Associated Students of Cerritos College is recommended. Students will be encouraged to join the Student American Dental Hygienists' Association (SADHA) with membership fee of about $30 annually.

V. Scholarship, Attendance, Promotion, Graduation
A. Attendance: all students are required to observe the attendance requirements of the college. During the program, some of the classes are held at UCLA Dental School and various county dental health facilities. Please Note: UCLA clinic class schedule may vary from the Cerritos College class schedule. Some classes may be scheduled in the evenings or on Saturdays.
B. Scholarship and Promotion: Students are required to maintain a grade of “C” or better in each dental hygiene and dental education course in order to progress in the program. Grade requirements of the college are to be met for all other courses.
C. Graduation: Petition for graduation will be permitted if the student meets both the college and the Dental Hygiene Program requirements for graduation. Upon completion of the program the graduate will be qualified to take the California State Board and the National Board Examinations in Dental Hygiene.

DENTAL HYGIENE—951
ASSOCIATE IN ARTS DEGREE

Prerequisites: CHEM 100, A&P 200, 201, MICR 200, HO 152, or equivalent with a grade of Credit or “C” or higher in each course. Valid adult, child, and infant CPR card including two person CPR.

MAJOR REQUIREMENTS

FIRST YEAR

<table>
<thead>
<tr>
<th>FIRST SEMESTER</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH 110 Preventive Dentistry I</td>
<td>2</td>
</tr>
<tr>
<td>DH 111 Infection Control &amp; Dental Office Emergencies</td>
<td>2</td>
</tr>
<tr>
<td>DH 112 Dental Hygiene Radiography</td>
<td>2</td>
</tr>
<tr>
<td>DH 114 Dental Hygiene Clinical Sciences I</td>
<td>2</td>
</tr>
<tr>
<td>DH 115C Pre-Clinical Dental Hygiene I</td>
<td>2</td>
</tr>
<tr>
<td>DH 116 Head &amp; Neck Anatomy</td>
<td>2</td>
</tr>
<tr>
<td>DH 119 Dental Embryology, Histology and Anatomy</td>
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<table>
<thead>
<tr>
<th>SECOND SEMESTER</th>
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</thead>
<tbody>
<tr>
<td>DH 120 Preventive Dentistry</td>
<td>2</td>
</tr>
<tr>
<td>DH 125 Dental Hygiene Clinical Sciences II</td>
<td>2</td>
</tr>
<tr>
<td>DH 125C Clinical Dental Hygiene II</td>
<td>3</td>
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<tr>
<td>DH 126 General &amp; Oral Pathology</td>
<td>2</td>
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<tr>
<td>DH 127 Pharmacology</td>
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<tr>
<td>DH 128 Management of Pain</td>
<td>2</td>
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<tr>
<td>DH 129 Applied Periodontics</td>
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</tbody>
</table>

SUMMER SESSION

<table>
<thead>
<tr>
<th>SUMMER SESSION</th>
<th>UNITS</th>
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<tbody>
<tr>
<td>DH 150L Clinical Dental Hygiene IIA</td>
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SECOND YEAR

<table>
<thead>
<tr>
<th>FIRST SEMESTER</th>
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<tbody>
<tr>
<td>DH 232 Dental Materials Laboratory</td>
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<tr>
<td>DH 234 Dental Care for the Special Patient</td>
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<tr>
<td>DH 235 Dental Hygiene Clinical Sciences III</td>
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<tr>
<td>DH 235C Clinical Dental Hygiene III</td>
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<tr>
<td>DH 238L Community Dental Health Laboratory I</td>
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<tr>
<td>DH 239 Dental Health Education &amp; Research I</td>
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Curricula, Requirements for Majors, Certificates and Transfer Programs

Second Semester

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>DH 244</td>
<td>Ethical Issues in Dental Hygiene</td>
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<tr>
<td>DH 245</td>
<td>Dental Hygiene Clinical Sciences IV</td>
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<tr>
<td>DH 245C</td>
<td>Clinical Dental Hygiene IV</td>
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<tr>
<td>DH 248L</td>
<td>Community Dental Health Laboratory II</td>
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<tr>
<td>DH 249</td>
<td>Dental Health Education &amp; Research II</td>
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</table>

SUMMER SESSION - OPTIONAL

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<tr>
<th>Course Code</th>
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<tr>
<td>DH 250L</td>
<td>Clinical Dental Hygiene V</td>
<td>1</td>
</tr>
</tbody>
</table>

The following requirements also must be completed to qualify for the A.A. Degree:
- General Introductory Psychology (PSYC 101)
- Freshman Composition (ENGL 100)
- Speech (SPCH 100, 130, 132, or 120)
- American Political Institutions (POL 101 or 201)
- Introductory Sociology Principles (SOC 101)
- History (HIST 101, 201, 202, 220 or 221)
- *Humanities (three units)
- *Fine Arts (three units)

*D See Cerritos College General Education Requirements for the appropriate lists of courses acceptable for meeting the Humanities and Fine Arts Requirements.

DENTAL HYGIENE—690

TRANSFER PROGRAM
University of Southern California

60 Semester units must be completed prior to admission with the following courses as part of the 60 semester units:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>BIOL 200</td>
<td>Principles of Biology</td>
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<tr>
<td>BIOL 201</td>
<td>Principles of Biology</td>
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</tr>
<tr>
<td>or A&amp;P 200</td>
<td>Human Anatomy</td>
<td>(5)</td>
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<tr>
<td>or A&amp;P 201</td>
<td>Human Physiology</td>
<td>(5)</td>
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<tr>
<td>CHEM 111</td>
<td>General Chemistry</td>
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<tr>
<td>CHEM 112</td>
<td>General Chemistry</td>
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<tr>
<td>CHEM 211</td>
<td>Organic Chemistry</td>
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<tr>
<td>ENGL 100</td>
<td>Freshman Composition</td>
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<tr>
<td>ENGL 102</td>
<td>Freshman Composition and Literature</td>
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<tr>
<td>PSYC 101</td>
<td>General Introductory Psychology</td>
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</tr>
<tr>
<td>SOC 101</td>
<td>Introductory Sociology Principles</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 100</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

Other transfer institutions in California offering a Dental Hygiene program are University of California - San Francisco, and Loma Linda University. Because entrance requirements differ for specific schools details needed in preparation for these institutions. Students are also advised to consult specific school catalogs.

CAREER OPPORTUNITIES: Upon completion of Bachelor Degree Program and after passing the State Licensing Examinations: seek employment as a dental hygienist with individual dentists, clinics, school districts and various other institutions.

See Cerritos College Graduation Requirements.
See State University General Education List.

DRAFTING TECHNOLOGY PROGRAMS

DRAFTING TECHNOLOGY—823

CERTIFICATE OF ACHIEVEMENT
Recommended High School Preparation:
One year Algebra, one year of Mechanical Drafting

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>DRAF 51</td>
<td>Advanced Applications of Computer Aided Drafting and Design Using AutoCAD</td>
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</tr>
<tr>
<td>DRAF 55</td>
<td>AutoCAD Rendering and Solid Modeling Applications</td>
<td>4</td>
</tr>
<tr>
<td>DRAF 56</td>
<td>Introduction to AutoCAD Mechanical Desktop</td>
<td>4</td>
</tr>
<tr>
<td>DRAF 57</td>
<td>Advanced Application of AutoCAD Mechanical Desktop</td>
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</tr>
<tr>
<td>DRAF 117</td>
<td>Geometrical Dimensioning and Tolerancing</td>
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<tr>
<td>DRAF 133</td>
<td>Sheet Metal Layout &amp; Applications</td>
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<tr>
<td>DRAF 138</td>
<td>Fundamentals of Computer Aided Drafting</td>
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<tr>
<td>DRAF 153</td>
<td>Machine Drawing and Design with AutoCAD</td>
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<tr>
<td>DRAF 237</td>
<td>Graphical Statics &amp; Strength of Materials</td>
<td>3</td>
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<tr>
<td>DRAF 254</td>
<td>AutoCAD Solid Modeling and 3D</td>
<td>4</td>
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<tr>
<td>MFGT 100</td>
<td>Manufacturing Processes</td>
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<tr>
<td>TM 50</td>
<td>Technical Mathematics</td>
<td>3</td>
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<tr>
<td>or MATH 60</td>
<td>Elementary Algebra</td>
<td>(4)</td>
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<tr>
<td>MTT 100</td>
<td>Modern Manufacturing Concepts and Techniques</td>
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</table>

TOTAL CERTIFICATE REQUIREMENTS: 42.5 (43.5)

MECHANICAL DRAFTING OPTION—819

Above courses required plus both DRAF 258 and MET 100A

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<tr>
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<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>DRAF 258</td>
<td>Design &amp; Production Technology</td>
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<tr>
<td>MET 100A</td>
<td>Metallurgy</td>
<td>3</td>
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</tbody>
</table>

TOTAL CERTIFICATE REQUIREMENTS: 49.5 (50.5)

DRAFTING AND DESIGN TECHNOLOGY—820

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the above requirements as listed for the Certificate of Achievement in Mechanical Drafting and Design. A student must also complete electives, and A.A. Degree general education requirements to achieve a minimum of 60 units

RECOMMENDED ELECTIVES: MFGT 51, BA 117, BA 107

CAREER OPPORTUNITIES: Draftsperson, master layout person, systems draftsperson, junior design and tool designer, and CAD/CAM Designers.

RELATED TRANSFER PROGRAM: Industrial (Engineering) Technology Manufacturing Option.
See Cerritos College Graduation Requirements.

ECONOMICS—720

TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ECON 201</td>
<td>Principles</td>
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<tr>
<td>ECON 202</td>
<td>Principles</td>
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</tbody>
</table>

104
ADDITIONAL LOWER DIVISION MAJOR REQUIREMENTS
FOR SPECIFIC TRANSFER INSTITUTIONS

California State University - Dominguez Hills
General Economics:
MATH 112 Elementary Statistics 3
MATH 102 Analytic Geometry and Calculus I 4
or BUSA 101 Fundamentals of Accounting I (4)
AND BUSA 102 Fundamentals of Accounting II (4)

Quantitative Economics:
MATH 116 Calculus for Managerial, Biological and Social Sciences 4
CIS 101 Introduction to Business Computer Information Systems 3
or CIS 170 Programming in BASIC (3)

California State University - Fullerton
BUS 101 Fundamentals of Accounting I 4
AND BUSA 133 Spreadsheet Accounting I 3
CIS 101 Introduction to Business Computer Information Systems 3
MATH 116 Calculus for Managerial, Biological and Social Sciences 4
or MATH 102 Analytic Geometry and Calculus I (4)
CSUF also requires a lower division business writing course not offered at Cerritos College.

California State University - Long Beach
BUS 101 Fundamentals of Accounting I 4
MATH 116 Calculus for Managerial, Biological, and Social Sciences 4
or MATH 102 Analytic Geometry and Calculus I (4)
A minimum of two courses outside economics are also required totaling six (6) or more units. Students should see a counselor for these options.

California State University - Los Angeles
Applied Economics:
BUS 101 Fundamentals of Accounting I 4
AND BUS 102 Fundamentals of Accounting II 4
CIS 101 Introduction to Business Computer Information Systems 3
MATH 102 Analytic Geometry and Calculus I 4
MATH 112 Elementary Statistics 4

Social and Behavioral Sciences:
BUS 101 Fundamentals of Accounting I 4
AND BUSA 102 Fundamentals of Accounting II 4
MATH 112 Elementary Statistics 4
MATH 116 Calculus for Managerial, Biological and Social Sciences 4

COMMON LOWER DIVISION PREPARATION
FOR THE UNIVERSITY OF CALIFORNIA
ECON 201 Principles 3
ECON 202 Principles 3

ADDITIONAL LOWER DIVISION PREPARATION
FOR SPECIFIC INSTITUTION
University of California - Los Angeles
ENGL 102 Freshman Composition and Literature 3
or ENGL 103 Critical and Argumentative Writing (3)
MATH 102 Analytic Geometry and Calculus I 4
MATH 103 Analytic Geometry and Calculus II 4
MATH 112 Elementary Statistics 4

University of California - Irvine
CIS 101 Introduction to Business Computer Information Systems 3
or CIS 103 Computer Programming Logic (3)
or CIS 280 Object-Oriented Programming in C++ (3)
MATH 102 Analytic Geometry and Calculus I 4
and MATH 103 Analytic Geometry and Calculus II 4
MATH 240 Calculus and Differential Equations 4

UC Irvine also requires two (2) introductory courses in disciplines other than economics. In addition, UC Irvine requires an additional social science course, which may include introductory courses not taken above. Students should consult counselors for specific courses.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete ECON 201 & 202 and MATH 80 (or equivalent) plus related coursework to be selected in consultation with a counselor to meet the 18 unit minimum and the AA degree general education requirements for a total of at least 60 units

CAREER OPPORTUNITIES: Economics find employment in business, industry and government as price and market analysts, planning consultants and related occupations.

See Cerritos College Graduation Requirements.

EDUCATIONAL TECHNOLOGY PROGRAM

EDUCATIONAL TECHNOLOGY—310
CERTIFICATE OF ACHIEVEMENT

The Educational Technology Certificate focuses on the fundamental computer skills needed to work within today's educational technology environments. The program provides a foundation in computer software and resources for curriculum development and presentations, multi-media enhancements and other general skills and strategies that would be used in a classroom or in a service program that assists teachers to enhance their curriculum delivery.

The goal of the Certificate program is to train educators or potential educators to effectively use technology to improve the learning environments of today's schools and for direct entry into employment in education or education related careers. This certificate can lead to an A.A. degree.

Major Requirements: You must complete 10 units in this area

<table>
<thead>
<tr>
<th>UNITS</th>
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<tbody>
<tr>
<td>EDT 1</td>
</tr>
<tr>
<td>or EDT 2</td>
</tr>
</tbody>
</table>
Take all of the following:

EDT 4 Integration of the Internet to the Curriculum - Advanced 1
EDT 5 Integration of the Internet to the Curriculum - Curriculum Projects 1
EDT 6 E-mail for Educators 1
EDT 7 Microsoft WORD for Educators - Part 1 1
EDT 9 PowerPoint for Educators 1
EDT 11 Spread Sheets for Educators using Excel 1
EDT 12 Database Management Systems using Access 1
EDT 14 Web Design Using FrontPage 1
EDT 16 Fundamentals of Teaching Online Courses 1

Additional Requirements

You must complete 8 units in this area:

Take one of the following not taken under Major Requirements above:

EDT 1 Introduction to Microsoft Windows 1
or EDT 2 Introduction to MAC Operating System 1

Take 7 units from the following:

EDT 8 Microsoft WORD for Educators - Part 2 1
EDT 10 PowerPoint for Educators - Part 2 1
EDT 43 EdTech Occupational Work Experience 3
EDT 15 Issues in Hardware Evaluation and Troubleshooting 1
EDT 17 Computers Integration into the Math and Science Curriculum 1
EDT 19 Fundamentals of Teleconferencing 1
ART 52 Introduction to Designing Web Graphics 3
CIS 50 Computer Literacy .5
CIS 121 Introduction to Internet 1.5
PHOT 112 Intermediate Digital Photography 3

Total amount needed: 18 units

To be awarded a Certificate of Achievement by the college, a student must complete all the major requirements and 8 additional EDT units to total a minimum of 18 units.

Certificate of Completion awarded by the EDT department may be given after 9 EDT units.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete all the major requirements for the Certificate of Achievement and all A.A. degree general education requirements for a total of at least 60 units.

INSTRUCTIONAL MULTI-MEDIA — 320 CERTIFICATE OF ACHIEVEMENT

The Instructional Multi-Media Certificate focuses on the fundamental multi-media skills needed to work within today's educational technology environments. The program provides a foundation in computer software and resources for curriculum development and presentations, multi-media enhancements, audio and video skills along with strategies that would be used in a classroom or in a service program that assists teachers to enhance their curriculum delivery.

The goal of the Certificate program is to train educators or potential educators to effectively use technology to improve the learning environments of today's schools and for direct entry into employment in education or education related careers. This certificate can lead to an A.A. degree.
**TELECONFERENCING PRACTITIONER—330 CERTIFICATE OF ACHIEVEMENT**

The Teleconferencing Practitioner Certificate focuses on the fundamental teleconferencing skills needed to work within today's educational technology environments. The program provides a foundation in teleconferencing strategies that would be used in a teleconference center or classroom or in a service program that assists teachers to enhance their teleconferencing delivery.

The goal of the Certificate program is to train educators or potential educators to effectively use teleconferencing technology and strategies to improve the learning environments of today's schools and/or for direct entry into employment in education or education related careers. This certificate can lead to an A.A. degree.

**Major Requirements:** You must complete 13 units in this area

<table>
<thead>
<tr>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take one of the following:</td>
</tr>
<tr>
<td>EDT 1 Microsoft Windows for Educators 1</td>
</tr>
<tr>
<td>or EDT 2 Macintosh for Educators 1</td>
</tr>
<tr>
<td>Take all of the following:</td>
</tr>
<tr>
<td>EDT 15 Issues in Hardware Evaluation and Troubleshooting 1</td>
</tr>
<tr>
<td>EDT 19 Fundamentals of Teleconferencing 1</td>
</tr>
<tr>
<td>EDT 20 Teleconferencing for Small Groups 2</td>
</tr>
<tr>
<td>EDT 21 Teleconference Telematics 1</td>
</tr>
<tr>
<td>EDT 22 Teleconference Event Review and Evaluation 1</td>
</tr>
<tr>
<td>EDT 23 Teleconference Production Studio 3</td>
</tr>
<tr>
<td>EDT 24 Teleconference Portfolio Workshop 3</td>
</tr>
<tr>
<td><em>13</em></td>
</tr>
</tbody>
</table>

**Additional Requirements:**
You must complete 5 units in this area:

<table>
<thead>
<tr>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDT 1 Microsoft Windows for Educators 1</td>
</tr>
<tr>
<td>EDT 2 Macintosh for Educators 1</td>
</tr>
<tr>
<td>EDT 4 Integration of the Internet to the Curriculum - Advanced 1</td>
</tr>
<tr>
<td>EDT 5 Integration of the Internet to the Curriculum - Curriculum Projects 1</td>
</tr>
<tr>
<td>EDT 8 Microsoft WORD for Educators - Part 2 1</td>
</tr>
<tr>
<td>EDT 9 PowerPoint for Educators 1</td>
</tr>
<tr>
<td>EDT 10 PowerPoint for Educators - Part 2 1</td>
</tr>
<tr>
<td>EDT 43 EdTech Occupational Work Experience 3</td>
</tr>
<tr>
<td>EDT 14 Web Design Using FrontPage 1</td>
</tr>
<tr>
<td>EDT 16 Fundamentals of Teaching Online Courses 1</td>
</tr>
<tr>
<td>EDT 17 Computers Integration into the Math and Science Curriculum 1</td>
</tr>
<tr>
<td>ART 52 Introduction to Designing Web Graphics 3</td>
</tr>
<tr>
<td>CIS 50 Computer Literacy .5</td>
</tr>
<tr>
<td>PHOT 112 Intermediate Digital Photography 3</td>
</tr>
<tr>
<td><em><em>Total amount needed:</em> 18 units</em>_</td>
</tr>
</tbody>
</table>

To be awarded a Certificate of Achievement by the college, a student must complete all the major requirements and 5 additional EDT units to total a minimum of 18 units.

Certificate of Completion awarded by the EDT department may be given after 9 EDT units.

**ASSOCIATE IN ARTS DEGREE REQUIREMENTS:**
Complete all the major requirements for the Certificate of Achievement and all A.A. degree general education requirements for a total of at least 60 units.

---

**ELECTRONICS TECHNOLOGY—830 ASSOCIATE IN ARTS DEGREE**

**ELECTRONICS PROGRAM BASIC CORE COURSES**

<table>
<thead>
<tr>
<th>ELECTRONICS TECHNOLOGY PROGRAM BASIC CORE COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL 50 Electronic Tests and Measurements 1.5</td>
<td></td>
</tr>
<tr>
<td>EL 60 Computer Aided Circuit Analysis 1.5</td>
<td></td>
</tr>
<tr>
<td>EL 110 Principles of DC Electronics 4</td>
<td></td>
</tr>
<tr>
<td>EL 110L DC Electronics Laboratory 1</td>
<td></td>
</tr>
<tr>
<td>EL 114 Fundamentals of Digital Electronics 3</td>
<td></td>
</tr>
<tr>
<td>EL 114L Fundamentals of Electrons Laboratory 1</td>
<td></td>
</tr>
<tr>
<td>EL 120 Principles of AC Electronics 4</td>
<td></td>
</tr>
<tr>
<td>EL 120L AC Electronics Laboratory 1</td>
<td></td>
</tr>
<tr>
<td>EL 124 Advanced Digital Electronics 3</td>
<td></td>
</tr>
<tr>
<td>EL 124L Advanced Digital Electronics Laboratory 1</td>
<td></td>
</tr>
<tr>
<td>EL 200 Circuit Analysis 3</td>
<td></td>
</tr>
<tr>
<td>EL 200L Circuit Analysis Laboratory 1</td>
<td></td>
</tr>
<tr>
<td>EL 210 Electronics Systems Analysis 3</td>
<td></td>
</tr>
<tr>
<td>EL 210L Electronics Systems Laboratory 1</td>
<td></td>
</tr>
<tr>
<td>EL 244 Introduction to Microcomputers 4</td>
<td></td>
</tr>
<tr>
<td><em><strong>TOTAL UNITS:</strong> 33</em></td>
<td></td>
</tr>
</tbody>
</table>

**COREQUISITES IN MATHEMATICS**

<table>
<thead>
<tr>
<th>COREQUISITES IN MATHEMATICS</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TM 50 Technical Mathematics 3</td>
<td></td>
</tr>
<tr>
<td>or MATH 140 Trigonometry 3</td>
<td></td>
</tr>
</tbody>
</table>

**ASSOCIATE IN ARTS DEGREE REQUIREMENTS:**

Complete 60 units to include (1) the above BASIC CORE requirements (32 units), (2) the above corequisites (8 units), (3) the A.A. Degree general education requirements, and (4) electives as needed to complete the 60 units.

An A.A. with a specialization is available by including 12 additional units from the Certificate of Achievement options.

**CAREER OPPORTUNITIES:** Opportunities for electronic technicians include the aerospace, automotive, transportation, computer, instrumentation, telecommunication, television broadcasting, entertainment, motion picture, process control, manufacturing and health care industries and government agencies.

**RELATED TRANSFER PROGRAM:**

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**ELECTRONICS TECHNOLOGY CERTIFICATE OF ACHIEVEMENT**

**ELECTRONICS PROGRAM BASIC CORE COURSES**

<table>
<thead>
<tr>
<th>ELECTRONICS TECHNOLOGY PROGRAM BASIC CORE COURSES</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL 60 Computer Aided Circuit Analysis 1.5</td>
<td></td>
</tr>
<tr>
<td>EL 50 Electronic Tests and Measurements 1.5</td>
<td></td>
</tr>
<tr>
<td>EL 110 Principles of DC Electronics 4</td>
<td></td>
</tr>
<tr>
<td>EL 110L DC Electronics Laboratory 1</td>
<td></td>
</tr>
<tr>
<td>EL 114 Fundamentals of Digital Electronics 3</td>
<td></td>
</tr>
<tr>
<td>EL 114L Fundamentals of Electrons Laboratory 1</td>
<td></td>
</tr>
<tr>
<td>EL 120 Principles of AC Electronics 4</td>
<td></td>
</tr>
<tr>
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<td></td>
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</tr>
<tr>
<td>EL 124L Advanced Digital Electronics Laboratory 1</td>
<td></td>
</tr>
<tr>
<td>EL 200 Circuit Analysis 3</td>
<td></td>
</tr>
<tr>
<td>EL 200L Circuit Analysis Laboratory 1</td>
<td></td>
</tr>
<tr>
<td>EL 244 Introduction to Microcomputers 4</td>
<td></td>
</tr>
<tr>
<td><em><strong>TOTAL UNITS:</strong> 29</em></td>
<td></td>
</tr>
</tbody>
</table>
COREQUISITES IN MATHEMATICS
TM 50 Technical Mathematics 3
or MATH 140 Trigonometry 3

Certificates of Achievement in Electronics are available under five options. All options require completion of the Electronics Basic Core and Corequisite Mathematics courses. With Department approval, option courses may be tailored to student occupational objectives. Such options require a minimum of 12 units.

INDUSTRIAL ELECTRONICS TECHNOLOGY
OPTION—816
EL 210 Electronics Systems Analysis 3
EL 210L Electronics Systems Laboratory 1

And six (6) units selected from the following courses:
EL 56 Programmable Logic Controllers 3.5
EL 66 Fundamentals of Electricity 3
EL 76 Industrial Electronic Control 3.5
EL 86 Electric Motor Control 3
EL 96A Introduction to Automated Manufacturing 4

TOTAL UNITS: 10 (42)

COMMUNICATIONS TECHNOLOGY
OPTION—822
EL 202 Radio and TV Theory and Servicing 3
EL 210 Electronic Systems Analysis 3
EL 210L Electronic Systems Analysis Lab 1
EL 212 Electronics Communications 3
EL 212L Electronics Communications Lab 1

And three (3) units selected from the following courses:
EL 64A Introduction to Telecommunications Electronics 3
EL 64B Advanced Telecommunications Electronics 3
EL 94 Introduction to Digital Signal Processing 3
EL 220 Linear Integrated Circuits 3
EL 220L Linear Integrated Circuits Lab 1

TOTAL UNITS: 14 (46)

COMPUTER SERVICING TECHNOLOGY
OPTION—827
EL 54 Microcomputer Repair Fundamentals 3

And six (6) units selected from the following courses:
EL 64A Introduction to Telecommunications Electronics 3
EL 64B Advanced Telecommunications Electronics 3
EL 94 Introduction to Digital Signal Processing 3
EL 96A Introduction-Automated Manufacturing 4
EL 212 Electronics Communications 3
EL 212L Electronics Communications Lab 1
EL 220 Electronic System Analysis 3
EL 220L Electronic System Analysis Lab 1
TM 54 Math for Computer Technology 4
CIS 101 Introduction to Business Computer Information Systems 3
CIS 102 Introduction to Microcomputers Using Microsoft Office 3
CIS 103 Computer Programming Logic 3
CIS 180 Programming in C/C++ 3
CIS 210 Local Area Networks 3
CIS 212 Microsoft Windows NT 3
CIS 210 Local Area Networks 3
CIS 212 Microsoft Windows NT 3

TOTAL UNITS: 9 (41)

BIO-MEDICAL INSTRUMENTATION
OPTION—831
EL 205 Bio-Medical Electronics 4
EL 210 Electronic Circuit Analysis 3
EL 210L Electronic Circuit Analysis Lab 1
EL 215 Bio-Medical Instruments 4
A&P 120 Intro to Human Anatomy & Physiology 4
or A&P 130 Human Anatomy and Physiology (5)

TOTAL UNITS: 16 (48)

TELECOMMUNICATIONS TECHNOLOGY OPTION—826
EL 64A Introduction to Telecommunications Electronics 3
EL 64B Advanced Telecommunications Electronics 3

And six (6) units selected from the following courses:
EL 94 Digital Signal Processing 3
EL 212 Electronic Communication 3
EL 212L Electronic Communication Lab 1
EL 215 Electronic System Analysis 3
EL 215L Electronic System Analysis Lab 1
TM 54 Math for Computer Technology 4
CIS 101 Introduction to Business Computer Information Systems 3
CIS 102 Introduction to Microcomputers Using Microsoft Office 3
CIS 103 Computer Programming Logic 3
CIS 180 Programming in C/C++ 3
CIS 210 Local Area Networks 3
CIS 212 Microsoft Windows NT 3

TOTAL UNITS: 12 (44)

CAREER OPPORTUNITIES: Opportunities for electronic technicians include the aerospace, automotive, transportation, computer, instrumentation, telecommunication, television broadcasting, entertainment, motion picture, process control, manufacturing and health care industries and government agencies.


See Cerritos College Graduation Requirements.
Curricula, Requirements for Majors, Certificates and Transfer Programs

PHYS 201 Engineering Physics 4
PHYS 202 Engineering Physics 4

ADD THIS CLASS FOR THE UNIVERSITY OF CALIFORNIA,
MATH 240 Calculus and Differential Equations 4

Schools of engineering have similar basic science requirements but differ widely in the preparation for the various engineering options available. The following science, engineering, and math courses meet specific requirements for transfer as needed for the several options usually available at the four-year college level.

Contact a Cerritos engineering counselor for the specific requirements of the school and option you have selected in order to optimize preparation for transfer.

Biol 200 Principles of Biology 5
Biol 201 Principles of Biology 5
Chem 112 General Chemistry 5
Chem 205 Quantitative Analysis Chemistry 4
Chem 211 Organic Chemistry 5
Chem 212 Organic Chemistry 5
Cis 180 Programming in C/C++ 3
Cis 280 Object-Oriented Programming in C++ 3
Cis 178 Programming in Fortran 3
Cis 230 Assembly Programming for Microcomputers 4
Cis 177 Programming in Pascal 4
Cis 292 Data Structures 4
Draf 138 Fundamentals of Computer Aided Drafting 4
El 114 Fundamentals of Digital Electronics 3
El 114L Fundamentals of Digital Electronics Lab 1
Engr 115 Engineering Electric Circuits 3
Engr 123 Descriptive Geometry 3
Engr 135 Statics 3
Math 240 Calculus and Differential Equations 4
Phys 203 Engineering Physics 4

California State University - Long Beach
(CSULB) Offers nine engineering disciplines providing opportunity for specialization in the areas of Biomedical, Chemical, Civil, Computers, Electrical, Industrial-Management, Materials, Mechanical, and Ocean Engineering.

California State University - Fullerton
(CSUF) Has a common core of courses for the first two and one-half years. During the last two years the student selects engineering courses appropriate to one of the three options available: Electrical, Civil, and Mechanical.

California State University - Los Angeles
(CSULA) Offers programs leading to the Bachelor of Science degree in Engineering with option in Civil, Electrical, and Mechanical Engineering.

California State University - Pomona
(CSUP) Engineering school departments: Aerospace, Chemical and Materials, Civil, Electrical and Computer, Engineering Technology, Industrial and Manufacturing, and Mechanical. This institution combines technical applied courses with the sciences throughout the entire program.

Due to the fact that many of technical courses required cannot be duplicated at the community college level, it is wise to plan on attending Cal Poly during the summer quarter following graduation from Cerritos.

University of California - Los Angeles
(UCLA) Offers Bachelor's Degree in the following: Aerospace, Chemical, Civil, Computer Science, Computer Science and Engineering, Electrical, Materials, and Mechanical.

University of California - Irvine
(UCI) Offers Bachelor's Degree in the following: Aerospace, Chemical, Civil, and Computer Engineering, Electrical, Environmental, and Mechanical.

University of California - Riverside
(UCR) Offers Bachelor's Degree in the following: Chemical, Computer, Electrical, Environmental, and Mechanical.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

The following minimum requirements must be met in order to receive the Associate in Arts Degree: CIS 178 or CIS 177, CHEM 111, MATH 102, 103, 220, PHYS 201, 202, together with Cerritos College AA DEGREE GENERAL EDUCATION REQUIREMENTS TO TOTAL 60 UNITS.

CAREER OPPORTUNITIES: Career opportunities in engineering vary widely depending upon the area of specialization. The Cerritos Career Center provides current and comprehensive career information concerning each engineering discipline. Because engineering is a high unit professional major, the schools of engineering may require special general education classes. Contact a Cerritos engineering counselor for specific information.

ENGLISH—530

TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION
FOR THE CALIFORNIA STATE UNIVERSITY
AND CALIFORNIA STATE UNIVERSITY Units

ENGL 100 Freshman Composition 3
ENGL 102 Freshman Composition 3
ENGL 103 Critical and Argumentative Writing 3
ENGL 246A Survey of English Literature 3
ENGL 246B Survey of English Literature 3

Foreign Language: Students intending to transfer to the University of California should discuss foreign language requirement with counselor.

LOWER DIVISION MAJOR REQUIREMENTS
FOR SPECIFIC TRANSFER INSTITUTIONS

California State University - Fullerton:
Six units selected from the following courses:

ENGL 248A Masterpieces of World Literature 3
ENGL 248B Masterpieces of World Literature 3
ENGL 230A Introduction to American Literature 3
ENGL 230B Introduction to American Literature 3

California State University - Long Beach
ENGL 246A Survey of English Literature 3
ENGL 246B Survey of English Literature 3

(ENGL 240, Creative Writing is required of students planning to choose the creative writing option at CSULB.)
California State University - Los Angeles

ENGL 246A Survey of English Literature 3
ENGL 246B Survey of English Literature 3
ENGL 240 Creative Writing 3
ENGL 233 Readings in the Novel 3
ENGL 234 Readings in Short Fiction 3

University of California - Irvine

Complete one (1) year of Intermediate College Level Foreign Language. Select from the following:
FRENCH, GERMAN, JAPANESE or SPANISH.

University of California - Los Angeles

Complete one (1) year of Intermediate College Level Foreign Language. Select from the following:
FRENCH, GERMAN, JAPANESE or SPANISH.
AND select two (2) courses from the following:
ENGL 221A Literature in Bible-Hebrew Scriptures 3
ENGL 221B Literature in Bible-Christian Scripture 3
ENGL 225 Mexican Literature in Translation 3

University of California - Riverside

ENGL 230A Introduction to American Literature 3
ENGL 230B Introduction to American Literature 3
Recommended one course from the following:
ENGL 248A Masterpieces of World Literature 3
ENGL 248B Masterpieces of World Literature 3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete 60 units to include (1) ENGL 100, ENGL 102 or ENGL 103,(2) 12 additional units in English selected from ENGL 221A, 221B, 222, 225, 226, 227, 228, 230A, 230B, 232, 233, 234, 235, 246A, 246B, 246A, 248B, and (3) the Associate in Arts Degree general education requirements.

CAREER OPPORTUNITIES: English graduates are employed in all sectors of the economy requiring analytical, and communication skills; opportunities in the broad fields of government, transportation, business management, publications, communications, and the media; positions in education, public relations, advertising, libraries, museums, excellent preparation for study of law, theology, library, science.

FORESTRY—670

TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION

BIOL 200-201 Principles of Biology 5-5
MATH 112 Mathematical Statistics 3
CIS 178 Digital Computer Prog. 3

LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University Humboldt:
MATH 116 Calculus for Managerial, Biological and Social Sciences 4
CHEM 110 Elementary Chemistry 4
or CHEM 111 General Chemistry (5)
ORNH 110 Soils 4

California State University Berkeley:
ECON 201 Principles 3
ECON 202 Principles 3
ENGL 102 Freshman Composition and Literature 3
GEOL 101 The Earth Environment 4
MATH 102 Analytic Geometry and Calculus I 4
CHEM 111-112 General Chemistry 5-5

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all A.A. degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: After transfer to a four year college or university and completion of the Bachelor's Degree Program, graduates qualify for graduate study and for employment with timber companies, utility companies, U.S. Forest Service, National Park Service, Bureau of Land Management, Environmental Protection Agency, and the California Division of Forestry.

See Cerritos College Graduation Requirements.
See State University General Education List.

FRENCH—551

TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION
FOR THE CALIFORNIA STATE UNIVERSITY:

FREN 101 Elementary French 5
FREN 102 Elementary French 5
FREN 201 Intermediate French 5
FREN 202 Intermediate French 4
FREN 281 Beginning Conversational French 3
FREN 282 Intermediate Conversational French 3

ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC SCHOOLS

California State University Long Beach:
Two years of a second foreign language at the college level, or equivalent.

California State University Fullerton and L.A.:
FREN 281 Conversational French 3
FREN 282 Conversational French 3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
(1) Meet the above requirements as listed for a state university, (2) complete the A.A. Degree general education requirements, and (3) take electives to achieve a minimum of 60 units.

CAREER OPPORTUNITIES: Employment with the government, international firms, airline hostess, travel agent, librarian, linguistic reporter, teacher interpreter, translator.

See Cerritos College Graduation Requirements.
See State University General Education List.

GENERAL STUDIES—001

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
The GENERAL STUDIES major allows students to explore various academic disciplines within the college curriculum. In addition to meeting the Associate in Arts general education and proficiency
requirements, students choosing this major can freely select those courses which meet their personal and occupational needs or interest.

In order to qualify for an Associate in Arts Degree in GENERAL STUDIES, the following requirements must be met:

COMPLETE A MINIMUM OF 60 UNITS TO INCLUDE:
1. The general education pattern of courses and proficiency requirements. See A.A. graduation requirements page.
2. Additional units of course work to fulfill the 60 unit minimum may be selected from categories 5. a., b., c., d., and/or from any of the other degree applicable courses the college offers.
3. Consultation with a counselor prior to completing the final 18 units of course work.

See Cerritos College Graduation Requirements.

GEOGRAPHY—730
TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 101</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 102</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 105</td>
<td>3</td>
</tr>
</tbody>
</table>

ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC SCHOOLS

California State University - Los Angeles:
The Department of Geography and Urban Studies at CSULA offers undergraduate programs leading to Bachelor of Arts in Geography and also in Urban Studies.

Urban Studies Lower Division Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 112 Math Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all A.A. degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: Employment in business, regional, urban, and environmental planning, government, foreign service, teaching.

See Cerritos College Graduation Requirements.
See State University General Education List.

GEOLOGY—630
TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND UNIVERSITY OF CALIFORNIA

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 111 General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 112 General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>GEOL 101 The Earth Environment</td>
<td>4</td>
</tr>
<tr>
<td>MATH 102 Analytic Geometry and Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 103 Analytic Geometry and Calculus II</td>
<td>4</td>
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</tbody>
</table>

RECOMMENDED ELECTIVE

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESCL 180 Earth Science Materials and Preparations</td>
<td>1</td>
</tr>
</tbody>
</table>

ADDITIONAL LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University - Fullerton
B.A. in Earth Science.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 120 Introduction to Biological Science</td>
<td>4</td>
</tr>
<tr>
<td>CPSC 178 Digital Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>GEO 201 Earth History</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 201 Engineering Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 202 Engineering Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 203 Engineering Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

or PHYS 101 General Physics (4)

California State University - Long Beach

For emphasis in General Geology*

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 101 General Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 102 General Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

*Consult Counselor for additional required courses for other emphases.

California State University - Los Angeles

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 201 Earth History</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 201 Engineering Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 202 Engineering Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 203 Engineering Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

California State University - Long Beach

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 120 Introduction to Biological Science</td>
<td>4</td>
</tr>
<tr>
<td>ESCI 110 Introduction to Earth Science</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 101 General Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 102 General Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

RECOMMENDED: One (1), Introductory course in computer programming.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete 60 units to include (1) the above required courses and (2) the Associate in Arts degree general education requirements.

CAREER OPPORTUNITIES: After transfer to a four-year college or university and completion of the Bachelor's Degree program, graduates qualify for graduate study and for professional careers in government or industry and teaching.

See Cerritos College Graduation Requirements.
See State University General Education List.

GERMAN—552
TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GERM 101 Elementary German</td>
<td>5</td>
</tr>
<tr>
<td>GERM 102 Elementary German</td>
<td>5</td>
</tr>
<tr>
<td>GERM 201 Intermediate German</td>
<td>4</td>
</tr>
<tr>
<td>GERM 202 Intermediate German</td>
<td>4</td>
</tr>
</tbody>
</table>

ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC SCHOOLS:

California State University Long Beach
Two years of a second foreign language at the college level or equivalent.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESCL 180 Earth Science Materials and Preparations</td>
<td>1</td>
</tr>
</tbody>
</table>
ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
(1) Meet the above requirements as listed for a state university,
(2) complete the A.A. Degree general education requirements, and (3)
take electives to achieve the minimum of 60 units.

CAREER OPPORTUNITIES: Employment with U.S. or international agencies or with international business firms, airline hostess, travel agency personnel, librarian, linguistic reporter, teacher, interpreter, translator.

See Cerritos College Graduation Requirements.
See State University General Education List.

HISTORY—740
TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION
FOR THE CALIFORNIA STATE UNIVERSITY
AND UNIVERSITY OF CALIFORNIA

HIST 201 Political & Social History of the U.S. 3
HIST 202 Political & Social History of the U.S. 3
HIST 240 Western Civilization 3
HIST 241 Western Civilization 3

ADDITIONAL LOWER DIVISION REQUIREMENTS
FOR SPECIFIC TRANSFER INSTITUTIONS
California State University - Dominguez Hills
HIST 201 and 202 are not required.
Foreign Language: Students intending graduate-work in History are advised to study at least one foreign language appropriate to area of specialization.

University of California - Irvine
HIST 260 Survey of the History of Asia 3
HIST 265 Selected Problems in Contemporary Asian History 3
Up to (3) three additional UC transferable history courses.
Two years of a language other than English, FREN 201 & 202, GERM 201 & 202, JAPN 201 & 202 or SPAN 201 & 202.

University of California - Riverside
Any UC transferable lower division History, regardless of whether it is articulated to a particular UCR course.

HIST 4.1 Western Civilization 3
or HIST 4.2 Western Civilization (3)

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete a minimum of 60 units to include (1) the above course requirements, (2) the AA Degree general education requirements, and (3) electives as needed.

See Cerritos College Graduation Requirements.
See State University General Education List.

HOME ECONOMICS—960
TRANSFER PROGRAM
CSU, Long Beach offers the Bachelor of Arts degree in Family Consumer Sciences (Formerly Home Economics).
Options:
- Communication
- Consumer Affairs
- Fashion Merchandising
- Textiles and Clothing
Each option requires specific courses. Students are urged to see a Cerritos College counselor for accurate and complete lower division preparation.

LOWER DIVISION MAJOR REQUIRED
FOR SPECIFIC TRANSFER INSTITUTION
California State University - Long Beach
A&P 120 Introduction to Human Anatomy and Physiology 4
or A&P 130 Human Anatomy and Physiology (5)
PSYC 101 General Introductory Psychology 3
SOC 101 Introductory Sociology Principles 3
or ANTH 100 Cultural Anthropology (3)
These must be completed with a "C" or better.

Fashion Merchandise Option
BUSA 101 Fundamentals of Accounting I 4
CHEM 100 Introductory Chemistry 4
or CHEM 111 General Chemistry (5)
ECON 201 Principles 3
ECON 202 Principles 3
HIST 240 Western Civilization 3
PSYC 101 General Introductory Psychology 3
SOC 101 Introductory Sociology Principles 3
or ANTH 100 Cultural Anthropology (3)

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete a minimum of 60 units to include (1) the above course requirements, (2) the AA Degree general education requirements, and (3) electives as needed.

See Cerritos College Graduation Requirements.
See State University General Education List.
PHOT 100 Introductory Photography 3
PMT 100 Plastics Composites Manufacturing Technology 2
WMT 101 Introduction to Woodworking 2

State Universities that offer majors in Industrial Arts, Technology, and Vocational Education are California State University - Long Beach, Los Angeles, Chico, Fresno, Humboldt, San Diego, San Francisco, San Jose, and San Luis Obispo.

Students wishing to teach in Vocational Education at the Community College, Adult School, ROP, and ROC should consult a counselor for further information.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete 60 units to include, (1) the above-required courses, (2) electives as needed and (3) the Associate in Arts Degree requirements.

CAREER OPPORTUNITIES: After transfer, completion of the Bachelor's Degree Program and receiving a Teaching Credential, graduates are prepared for teaching positions in Industrial Education through high School.

See Cerritos College Graduation Requirements.
See State University General Education List.

INDUSTRIAL TECHNOLOGY CONSTRUCTION OPTION— 837
TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION
FOR THE CALIFORNIA STATE UNIVERSITY

ARCH 111 Architectural Drafting 3
CHEM 111 General Chemistry 5
DRAF 131 Fundamentals of Drafting Including AutoCAD 3
ECON 201 Principles 3
MATH 102 Analytic Geometry and Calculus I 4
PHIL 106 Introduction to Logic 3
PHYS 101 General Physics 4
PHYS 102 General Physics 4

ADDITIONAL LOWER DIVISION REQUIREMENTS
FOR SPECIFIC TRANSFER INSTITUTIONS
California State University - Long Beach
BA 111 Introduction to Business Law 3
BUSA 240 Cost Accounting 4
CIS 101 Introduction to Business Computer Information Systems 3
DRAF 237 Graphical Statics and Strength of Materials 3
MATH 112 Elementary Statistics 4
California State Polytechnic University - Pomona
ARCH 121 Materials and Methods of Building Construction 3
ENGR 135 Statics 3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete 60 units to include (1) the above-required courses, (2) electives as needed, and (3) the Associate in Arts Degree requirements.

CAREER OPPORTUNITIES: Completion of the Bachelor's Degree Program qualifies a person to serve in expediting, coordination, inspection, specification and proposal writing, facilities planning and development, project management and associated work in the construction or manufacturing industries. Some graduates elect to obtain the General Contractors License and go directly into the construction business.

See Cerritos College Graduation Requirements.
See State University General Education List.

INDUSTRIAL TECHNOLOGY ELECTRONICS OPTION— 836
TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION
FOR THE CALIFORNIA STATE UNIVERSITY

CHEM 111 General Chemistry 5
DRAF 131 Fundamentals of Drafting Including AutoCAD 3
ECON 201 Principles 3
EL 110 Principles of DC Electronics 4
EL 110L DC Electronics Laboratory 1
EL 114 Fundamentals of Digital Electronics 3
EL 114L Fundamentals of Digital Electronics Lab 1
EL 120 Principles of AC Electronics 4
EL 120L AC Electronics Laboratory 1
EL 200 Semi-Conductor Circuits 3
EL 200L Semi-Conductor Circuits Laboratory 1
MATH 102 Analytic Geometry and Calculus I 4
PHIL 106 Introduction to Logic 3
PHYS 101 General Physics 4
PHYS 102 General Physics 4

ADDITIONAL LOWER DIVISION REQUIREMENTS
FOR SPECIFIC TRANSFER INSTITUTIONS
California State University - Long Beach
CIS 101 Introduction to Business Computer Information Systems 3
DRAF 237 Graphical Statics and Strength of Materials 3
EL 210 Electronic Systems Analysis 3
EL 210L Electronic Systems Analysis Laboratory (For Computer Option) 1
MATH 112 Elementary Statistics 4
California State Polytechnic University - Pomona
ENGR 135 Statics 3

Other California State Universities that offer the Bachelor's Degree:
Chico, Fresno, San Jose, San Luis Obispo, and Sacramento.
Consult catalogs of specific institutions for requirements.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete 60 units to include, (1) the above-required courses, (2) electives as needed, and (3) the Associate in Arts Degree requirements.

CAREER OPPORTUNITIES: After transfer and completion of the Bachelor's Degree program, a student is qualified to work in careers such as designer, project manager, field engineer, service engineer, manufacturing and test supervisor, sales engineer and technical representative. While there are many overlapping areas, the industrial technologist or engineering technologist is employed for central pur-
pose of supporting the practical side of engineering achievement with emphasis upon the end product (Production Management) rather than the conceptual process.

See Cerritos College Graduation Requirements. See State University General Education List.

INDUSTRIAL TECHNOLOGY MANUFACTURING OPTION—835
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION
FOR THE CALIFORNIA STATE UNIVERSITY

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>CHEM 111</td>
<td>5</td>
</tr>
<tr>
<td>DRAF 131</td>
<td>3</td>
</tr>
<tr>
<td>ECON 201</td>
<td>3</td>
</tr>
<tr>
<td>MATH 102</td>
<td>4</td>
</tr>
<tr>
<td>PHIL 106</td>
<td>3</td>
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<tr>
<td>PHYS 101</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 102</td>
<td>4</td>
</tr>
</tbody>
</table>

ADDITIONAL LOWER DIVISION MAJOR REQUIREMENTS
FOR SPECIFIC TRANSFER INSTITUTIONS

California State University - Long Beach

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CIS 101</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 237</td>
<td>3</td>
</tr>
<tr>
<td>DRAF 258</td>
<td>4</td>
</tr>
<tr>
<td>MTT 100</td>
<td>2.5</td>
</tr>
<tr>
<td>MATH 112</td>
<td>4</td>
</tr>
</tbody>
</table>

California State Polytechnic University - Pomona

(Manufacturing / Mechanical)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ENGR 135</td>
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<tr>
<td>WELD 100</td>
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</tbody>
</table>

Other California State University and Colleges that offer the Bachelor's Degree: Chico, Fresno, San Jose, San Luis Obispo, and Sacramento. Consult catalogs of specific institutions for requirements.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) the above-required courses, (2) electives as needed, and (3) the Associate in Arts Degree requirements.

CAREER OPPORTUNITIES: After transfer and completion of the Bachelor's Degree program, a student is qualified to work in careers such as production engineer, manufacturing engineer, tool engineer, program manager, cost estimator, and sales engineer. While there are many overlapping areas, the Industrial Technologist or Engineering Technologist is employed for the central purpose of supporting the practical side of engineering achievement with emphasis on the end product (production manager) rather than the conceptual process.

See Cerritos College Graduation Requirements. See State University Colleges General Education List.

INDUSTRIAL TECHNOLOGY QUALITY ASSURANCE—838
TRANSFER PROGRAM

The following program of study has been designed to prepare students for transfer to California State University, Long Beach - Engineering Technology.

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BA 111</td>
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<td>CIS 101</td>
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<tr>
<td>CHEM 111</td>
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<tr>
<td>DRAF 131</td>
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<tr>
<td>DRAF 237</td>
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</tr>
<tr>
<td>ECON 201</td>
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<td>MATH 112</td>
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<td>MATH 102</td>
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<tr>
<td>PHIL 106</td>
<td>3</td>
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<tr>
<td>PHYS 101</td>
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<td>PHYS 102</td>
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</table>

Quality Control Courses

<table>
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<tbody>
<tr>
<td>MET 100A</td>
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<tr>
<td>MET 120</td>
<td>3</td>
</tr>
<tr>
<td>MTT 100</td>
<td>2.5</td>
</tr>
</tbody>
</table>

CAREER OPPORTUNITIES: After transfer and completion of the Bachelor's Degree Program; serve in reliability, quality control; quality assurance, inspection, metrology, configuration management and testing aspects of manufacturing enterprises.

See Cerritos College Graduation Requirements. See State University General Education List.

INDUSTRIAL TECHNOLOGY AUTOMATED MANUFACTURING—839
CERTIFICATE OF ACHIEVEMENT

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MTT 100</td>
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<tr>
<td>MTT 170</td>
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<td>PMT 66</td>
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<td>EL 96A</td>
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<td>EL 96B</td>
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<td>EL 114L</td>
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<td>EL 124</td>
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</tr>
<tr>
<td>EL 124L</td>
<td>1</td>
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<tr>
<td>EL 244</td>
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</tr>
</tbody>
</table>

TOTAL UNITS: 39

ASSOCIATE IN ARTS DEGREE REQUIREMENTS

Complete 60 units to include (1) the Certificate of Achievement requirements, (2) DRAF 38, (3) the Associate in Arts Degree general education requirements, and (4) electives as needed.

RECOMMENDED ELECTIVES: PHYS 2.1
INTERNATIONAL STUDIES PROGRAM

GLOBAL POLITICS/DIPLOMACY—515
CERTIFICATE OF ACHIEVEMENT

CORE REQUIREMENTS (Certificate of Completion) UNITS
GEOG 105 World Regional Geography 3
POL 210 International Relations 3
BA 101 International Business 3
AND ONE OF THE FOLLOWING:
PHIL 200 World Religions 3
ANTH 100 Cultural Anthropology 3

DIVISION REQUIREMENTS
ENGL 106 Introduction to Language Study 3
POL 220 Comparative Government 3
SELECT 6 UNITS FROM THE FOLLOWING:
POL 230 Contemporary Political Issues: Middle East 3
HIST 221 History of the Americas 3
HIST 265 Selected Problems in Contemporary Asiatic History 3
HIST 255 History of Russia and the Soviet Union 3
ECON 101 American Economic System 3

TOTAL CERTIFICATE REQUIREMENTS: 24

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in Global Politics/Diplomacy and complete electives and general education requirements to achieve a minimum of 60 units.

GLOBAL RESOURCES—516
CERTIFICATE OF ACHIEVEMENT

CORE REQUIREMENTS (Certificate of Completion) UNITS
GEOG 105 World Regional Geography 3
POL 210 International Relations 3
BA 101 International Business 3
AND ONE OF THE FOLLOWING:
PHIL 200 World Religions 3
ANTH 100 Cultural Anthropology 3

DIVISION REQUIREMENTS
ENGL 106 Introduction to Language Study 3
ESCI 101 Physical Ecology 3
SELECT 6 UNITS FROM THE FOLLOWING:
GEOG 101 Physical Geography 3
GEOG 102 Natural and Cultural Geography 3
GEOL 101 Physical Geology 3
GEOL 110 Introduction to Geology 3
ESCI 101L Physical Ecology Field Laboratory 1
ESCI 104 Oceanography 3

TOTAL CERTIFICATE REQUIREMENTS: 24

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in Global Resources and complete electives and general education requirements to achieve a minimum of 60 units.

INTERNATIONAL BUSINESS—517
CERTIFICATE OF ACHIEVEMENT

CORE REQUIREMENTS (Certificate of Completion) UNITS
GEOG 105 World Regional Geography 3
POL 210 International Relations 3
BA 101 International Business 3
AND ONE OF THE FOLLOWING:
PHIL 200 World Religions 3
ANTH 100 Cultural Anthropology 3

DIVISION REQUIREMENTS
ENGL 106 Introduction to Language Study 3
BA 104 Cultural Bridges for Business 3
BA 109 Marketing 3
SELECT 3 UNITS FROM THE FOLLOWING:
BUSA 100 Introduction to Accounting 3
BA 112 Business Law 3
BUSF 126 Introduction to Stock Market and Investments 3
ECON 101 American Economic System 3

TOTAL CERTIFICATE REQUIREMENTS: 24

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in International Business and complete electives and general education requirements to achieve a minimum of 60 units.

INTERPRETING/TRANSLATING—518
CERTIFICATE OF ACHIEVEMENT

CORE REQUIREMENTS (Certificate of Completion) UNITS
GEOG 105 World Regional Geography 3
POL 210 International Relations 3
BA 101 International Business 3
AND ONE OF THE FOLLOWING:
PHIL 200 World Religions 3
ANTH 100 Cultural Anthropology 3

DIVISION REQUIREMENTS
ENGL 106 Introduction to Language Study 3
AND ONE OF THE FOLLOWING OPTIONS:
SPAN 282 Intermediate Conversational Spanish 3
SPAN 283 Advanced Conversational Spanish 3
FREN 202 Intermediate French 4
FREN 203 Intermediate French Advanced Level I 4
GERM 203 Scientific German 4
GERM 204 Scientific German 4
JAPN 102 Elementary Japanese 5
JAPN 201 Intermediate Japanese 5
SPAN 201 Intermediate Spanish 5
AND SPAN 202 Intermediate Spanish 4
or SPAN 212 Elementary Spanish for Spanish Speakers 5
AND SPAN 202 Intermediate Spanish 4
or SPAN 213 Living Spanish Grammar and Written Communication 2
SPAN 214 Living Spanish Grammar and Written Communication 2

TOTAL CERTIFICATE REQUIREMENTS: 24

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in Interpreting/Translating and complete electives and general education requirements to achieve a minimum of 60 units.
ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in Interpreting/Translating and complete electives and general education requirements to achieve a minimum of 60 units.

WORLD CULTURES—519
CERTIFICATE OF ACHIEVEMENT

CORE REQUIREMENTS (Certificate of Completion) UNITS
GEOG 105 World Regional Geography 3
POL 210 International Relations 3
BA 101 International Business 3
AND ONE OF THE FOLLOWING:
PHIL 200 World Religions 3
ANTH 100 Cultural Anthropology 3

DIVISION REQUIREMENTS
ENGL 106 Introduction to Language Study 3
HUM 100 The Art of Being Human 3
SELECT 6 UNITS FROM THE FOLLOWING:
HIST 230 History of Mexico 3
HIST 260 Survey of Asiatic History 3
PHIL 200 World Religions 3
ANTH 100 Cultural Anthropology 3
ANTH 202 Ancient Civilizations of the Americas 3
GEOG 102 Natural and Cultural Geography 3

TOTAL CERTIFICATE REQUIREMENTS: 24

ASSOCIATE IN ARTS DEGREE REQUIREMENTS
Meet the requirements for a Certificate of Achievement in World Cultures and complete electives and general education requirements to achieve a minimum of 60 units.

JOURNALISM—140
ASSOCIATE IN ARTS DEGREE PROGRAM

CORE REQUIREMENTS (19 units) UNITS
JOUR 100 Introduction to Mass Communication 3
JOUR 101 Beginning Newswriting and Reporting 3
JOUR 103 Newspaper Article Writing 2
JOUR 105 Newspaper Production 2
JOUR 130 Photo Journalism 3
ART 188 Design/Desktop Publishing 3
CIS 121 Introduction to Internet 1.5
CIS 205 Programming HTML for Web 1.5

DEPARTMENT REQUIREMENTS (10 units)
JOUR 110 Principles of Public Relations 3
JOUR 298 Directed Studies in Journalism 1
or JOUR 50 Editorial Board (1)
Plus a minimum of five units in additional Journalism courses 5

NOTE: Journalism students intending to transfer to a four-year college are referred to the Transfer Journalism Program of Study 145.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete a minimum of 60 units to include (1) the above Journalism courses and unit requirements, (2) AA Degree General Education Requirements, and (3) Electives as needed.
Curricula, Requirements for Majors, Certificates and Transfer Programs

PHOTOJOURNALISM—143
CERTIFICATE OF ACHIEVEMENT

The certificate helps the student focus on the study of and preparation for entry level employment in the field of photojournalism. The certificate should be particularly helpful to those looking for employment at newspapers, magazines, corporate and government public relations departments and online journalism ventures.

PHOTOJOURNALISM CERTIFICATE REQUIREMENTS 17

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOUR 130 Introduction to Photojournalism</td>
<td>3</td>
</tr>
<tr>
<td>PHOT 100 Introduction to Photography</td>
<td>3</td>
</tr>
<tr>
<td>PHOT 110 Introduction to Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>BA 100 Fundamentals of Business</td>
<td>3</td>
</tr>
<tr>
<td>or BUSA 100 Introduction to Accounting</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 105 Newspaper Production(can be repeated)</td>
<td>2*</td>
</tr>
<tr>
<td>JOUR 160L Magazine Production(can be repeated)</td>
<td>1**</td>
</tr>
<tr>
<td>JOUR 298 Directed Studies(maximum 1 unit)</td>
<td>1</td>
</tr>
<tr>
<td>JOUR 299 Directed Studies(internship-maximum 2 units)</td>
<td>2</td>
</tr>
<tr>
<td>BA 110 Advertising</td>
<td>3</td>
</tr>
</tbody>
</table>

*may be repeated; a maximum of four units may be applied
**may be repeated; a maximum of two units may be applied

PUBLIC RELATIONS—147
CERTIFICATE OF ACHIEVEMENT

JOURNALISM MAJOR DEPARTMENT CORE REQUIREMENTS 19

JOURNALISM MAJOR DEPARTMENT REQUIREMENTS 10

PUBLIC RELATIONS CERTIFICATE REQUIREMENTS 9

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 100 Fundamentals of Business</td>
<td>3</td>
</tr>
<tr>
<td>BA 109 Marketing</td>
<td>3</td>
</tr>
<tr>
<td>or BA 110 Advertising</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 299 Directed Studies</td>
<td>2</td>
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</table>

CERTIFICATE ELECTIVE (1 UNIT MINIMUM)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>PHOT 110 Digital Imaging</td>
<td>3</td>
</tr>
<tr>
<td>or ART 192 Digital Imaging</td>
<td>3</td>
</tr>
<tr>
<td>TH 152 Introduction to Broadcasting</td>
<td>3</td>
</tr>
<tr>
<td>ART 194 Multimedia Design</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 155 Introduction to Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>PHOT 100 Introduction to Photography</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 160 Parliamentary Procedure</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL CERTIFICATE UNITS: 38

See Cerritos College Graduation Requirements.

CAREER OPPORTUNITIES: The A.A. Degree, the Certificate in Public Relations, and the Certificate in Journalism by themselves, or with other education and degrees as appropriate, may directly or indirectly enhance employment potential in a broad job spectrum where media communications and related analytical skills are desirable. These include writer/reporter/editor for both print and broadcast/electronic journalism media (newspaper, magazine, radio, TV, etc.), corporate communications and public relations, public information and publicity, business and industrial journalism, newsletter writer and publisher, freelance writer, photographer, advertising copywriter and salesperson, journalism teacher and student publications adviser, non-fiction book and article writer, editorial and publications services consultant, and myriad other publishing and related areas.

JOURNALISM—145
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY UNITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>JOUR 100 Introduction to Mass Communications</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 101 Beginning News Writing and Reporting</td>
<td>3</td>
</tr>
</tbody>
</table>

ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University - Fullerton
JOURNALISM Concentration, Communications Major

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>JOUR 201 Advanced Reporting and Editing</td>
<td>3</td>
</tr>
<tr>
<td>PHOT 100 Introductory Photography</td>
<td>3</td>
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</table>

Broadcast Journalism Concentration, Communications Major

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCH 271 Voice and Articulation</td>
<td>3</td>
</tr>
</tbody>
</table>

Other Communication major concentrations are: Advertising; Photo-Communications; Public Relations; Television and Film.

California State University - Long Beach
Broadcast Journalism Concentration, Journalism Major

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOUR 200 Advanced Reporting and Editing</td>
<td>3</td>
</tr>
<tr>
<td>JOUR 299 Directed Studies (maximum 2 units)</td>
<td>2</td>
</tr>
</tbody>
</table>

Other Journalism options: Print Journalism, Journalism Education, Photojournalism, and Public Relations.

THE UNIVERSITY OF CALIFORNIA

There is no Journalism major at any campus of the University of California.

NOTE: The ability to word process and use the Internet are prerequisites for all students majoring in Journalism. See the Fine Arts Counselor for lower division preparation for other California State University Broadcast Journalism programs.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete a minimum of 60 units to include: (1) the above required courses plus electives in Journalism and Photography for a minimum of 18 units, (2) AA Degree general education requirements and (3) electives as needed.

See Cerritos College Graduation Requirements.
See State University General Education List.
LEGAL STUDIES— 272
TRANSFER PROGRAM

This is a multi-discipline program for students without a designated major interested in the study of the law. This program is designed to provide the students with a broad background in the areas of Administration of Justice, Business, Economics, History, Philosophy, and Political Science. Admission to law school does not require any specific major, and admission is based primarily on academic excellence and L.S.A.T. test achievement. Students interested in entering law school with a designated major should remain in their present major.

COURSE REQUIREMENTS

This program requires a selection of two courses from at least three areas, for a total of 18 units for the major in Legal Studies. This program is designed to transfer to various universities. Please check with your counselor regarding general education requirements for specific transfer institutions.

A. Administration of Justice

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJ 102 Concepts of Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>AJ 202 Substantive Law</td>
<td>3</td>
</tr>
<tr>
<td>AJ 103 Criminal Procedures</td>
<td>3</td>
</tr>
</tbody>
</table>

B. Business Administration

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 111 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BA 112 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BL 101 Introduction to Law</td>
<td>3</td>
</tr>
</tbody>
</table>

C. Economics

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 201 Principles</td>
<td>3</td>
</tr>
<tr>
<td>ECON 202 Principles</td>
<td>3</td>
</tr>
</tbody>
</table>

D. History

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 201 Political &amp; Social History of the U.S.</td>
<td>3</td>
</tr>
<tr>
<td>HIST 202 Political &amp; Social History of the U.S.</td>
<td>3</td>
</tr>
<tr>
<td>or HIST 240 Western Civilization</td>
<td>3</td>
</tr>
<tr>
<td>HIST 241 Western Civilization</td>
<td>3</td>
</tr>
</tbody>
</table>

E. Philosophy

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 106 Introduction to Logic</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 102 Introduction to Ethics</td>
<td>3</td>
</tr>
</tbody>
</table>

F. Political Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL 202 Comparative Government</td>
<td>3</td>
</tr>
<tr>
<td>POL 210 International Relations</td>
<td>3</td>
</tr>
</tbody>
</table>

ELECTIVES

Choose those courses from academic areas that represent a broad academic background of courses that specifically apply towards a bachelor's degree at the transfer institution.

For information regarding law schools for legal and paralegal training institutions, contact the American Bar Association, 750 N. Lake Shore Drive, Chicago, IL 60611.

For more complete up-to-date information regarding requirements in legal careers and legal programs at other colleges and universities, please contact the Cerritos College legal counselor.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS

The completion of 60 units, including the above required courses and the Associate in Arts general education requirements qualifies a student for the Associate in Arts degree in Legal Studies.

CAREER OPPORTUNITIES: A licensed attorney at law may practice law in many specialized areas of the law or become a general practitioner. Attorneys are employed at all levels of government. Industry employs lawyers at numerous occupational positions. Check with your counselor for other occupational positions that are related to the legal area.

MACHINE MOLDMAKING FOR PLASTICS— 847

COURSE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMP 50 Fundamentals of Machine Moldmaking</td>
<td>3</td>
</tr>
<tr>
<td>MMP 51 Injection and Extrusion Molds</td>
<td>3</td>
</tr>
<tr>
<td>MMP 52 Compression, Transfer &amp; Vacuum Forming Molds</td>
<td>3</td>
</tr>
<tr>
<td>MTT 100 Modern Manufacturing Concepts and Techniques</td>
<td>2.5</td>
</tr>
<tr>
<td>MTT 170 Computer Numerical Control Programming</td>
<td>4</td>
</tr>
<tr>
<td>WELD 100 Fundamentals of Welding</td>
<td>2</td>
</tr>
<tr>
<td>*DRAF 131 Fundamentals of Drafting</td>
<td>2</td>
</tr>
<tr>
<td>MET 100A Metallurgy &amp; Non-Metallic Materials</td>
<td>3</td>
</tr>
<tr>
<td>PMT 100 Plastics Technology I-2.5</td>
<td></td>
</tr>
<tr>
<td>TM 50 Technical Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 80 Intermediate Algebra</td>
<td>(4)</td>
</tr>
</tbody>
</table>

TOTAL CERTIFICATE REQUIREMENTS: 44 (45)

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) the specific requirements for the Certificate of Achievement above, (2) TM 2, MFGT 100, NC 21, (3) the Associate in Arts Degree general education requirements, and (4) electives as needed.

Recommended electives for minimum 60 units: BCOM 48, AND BCOM 47 are recommended for learning skills in general education.

CAREER OPPORTUNITIES: Upon completion of the program, a student is prepared to work in the mold making processes of the plastics industry.

See Cerritos College Graduation Requirements.

MACHINE TOOL TECHNOLOGY— 860

COURSE REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTT 1L Numerical Control Specialty</td>
<td>3</td>
</tr>
<tr>
<td>MTT 50 Machine Shop Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MTT 51 CAD/CAM Introduction</td>
<td>2.5</td>
</tr>
<tr>
<td>MTT 52 Setup &amp; Operation of CNC Machinery</td>
<td>2.5</td>
</tr>
<tr>
<td>MTT 54 Blueprint Reading</td>
<td>2.5</td>
</tr>
<tr>
<td>MTT 56 Shop Inspection</td>
<td>2.5</td>
</tr>
<tr>
<td>MTT 60 Advanced Machine Tool Concepts</td>
<td>2.5</td>
</tr>
<tr>
<td>MTT 62 Fixture Tooling</td>
<td>2.5</td>
</tr>
<tr>
<td>MTT 76 CAD/CAM Virtual Gibbs</td>
<td>2.5</td>
</tr>
<tr>
<td>MTT 80 CAD/CAM Mold Machining</td>
<td>2.5</td>
</tr>
<tr>
<td>MTT 100 Machine Tool Introduction</td>
<td>2.5</td>
</tr>
<tr>
<td>MTT 154 Shop Floor Communications and Post Processing</td>
<td>4</td>
</tr>
<tr>
<td>MTT 170 Computer Numerical Control Programming</td>
<td>2.5</td>
</tr>
<tr>
<td>MTT 172 Parts Programming</td>
<td>2.5</td>
</tr>
<tr>
<td>MTT 278 CAD/CAM Advanced</td>
<td>2.5</td>
</tr>
</tbody>
</table>

DRAFTING

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAF 131 Fundamentals of Drafting</td>
<td>2</td>
</tr>
</tbody>
</table>

TOTAL CERTIFICATE REQUIREMENTS: 41.5

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) the above requirements for a Certificate of Achievement, (2) MET 100A, PMT 65, DRAF 138, TM 50 (3) the A.A. Degree requirements, and (4) electives as needed.

RECOMMENDED ELECTIVES: MFGT 100, MTT 1L, MTT 80.

See Cerritos College Graduation Requirements.

MANUFACTURING TECHNOLOGY (MFGT) CERTIFICATION OF COMPLETION REQUIREMENTS

The four and a half to six units for the specialty may come from the units completed toward the degree or from additional courses outlined below. Students with previous coursework may also be considered for certificates upon providing transcripts for review through the matriculation process.

Quality Assurance (QA)
MFGT 60 Quality Assurance (QA) 1.5
MFGT 55 Quality Control (QC) 1.5
MFGT 57 TOTAL Quality Management (TQM) 1.5

4.5

Quality Control (QC)
MFGT 55 Quality Control (QC) 1.5
MFGT 53 Statistical Process Control (SPC) 1.5
MET 120 Nondestructive Testing (NDT) 3.0

6.0

Statistical Process Control (SPC)
MFGT 55 Quality Control (QC) 1.5
MFGT 53 Statistical Process Control (SPC) 1.5
TM 50 Technical Math 2.5

5.5

Total Quality Management (TQM)
MFGT 57 TOTAL Quality Management (TQM) 1.5
MFGT 60 Quality Assurance (QA) 1.5
MFGT 59 Design of Experiments (DOE) 1.5
MFGT 58 Benchmarking 1.5

6.0

ISO 9000
MFGT 60 Quality Assurance (QA) 1.5
MFGT 55 Quality Control (QC) 1.5
MFGT 56 ISO 9000 1.5

4.5

Advanced Quality Systems (AQS)
MFGT 57 TOTAL Quality Management (TQM) 1.5
MFGT 53 Statistical Process Control (SPC) 1.5
MFGT 58 Benchmarking 1.5
MFGT 59 Design of Experiments (DOE) 1.5

6.0

MATHEMATICS—620 TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 101</td>
<td>Pre-Calculus Mathematics</td>
</tr>
<tr>
<td>MATH 102</td>
<td>Analytic Geometry and Calculus I</td>
</tr>
<tr>
<td>MATH 103</td>
<td>Analytic Geometry and Calculus II</td>
</tr>
<tr>
<td>MATH 220</td>
<td>Analytical Geometry and Calculus III</td>
</tr>
<tr>
<td>MATH 240</td>
<td>Calculus and Differential Equations</td>
</tr>
<tr>
<td>CIS 177</td>
<td>Programming in Pascal</td>
</tr>
<tr>
<td>PHYS 201</td>
<td>Engineering Physics</td>
</tr>
<tr>
<td>PHYS 202</td>
<td>Engineering Physics</td>
</tr>
<tr>
<td>CIS 180</td>
<td>Programming in C/C++</td>
</tr>
<tr>
<td>or CIS 280</td>
<td>Object-Oriented Programming in C++</td>
</tr>
<tr>
<td>ENGL 100</td>
<td>Freshman Composition</td>
</tr>
<tr>
<td>PHYS 201</td>
<td>Engineering Physics</td>
</tr>
<tr>
<td>PHYS 202</td>
<td>Engineering Physics</td>
</tr>
<tr>
<td>CIS 178</td>
<td>Programming in Fortran</td>
</tr>
<tr>
<td>PHYS 201</td>
<td>Engineering Physics</td>
</tr>
<tr>
<td>PHYS 202</td>
<td>Engineering Physics</td>
</tr>
<tr>
<td>PHYS 203</td>
<td>Engineering Physics</td>
</tr>
<tr>
<td>CIS 180</td>
<td>Programming in C/C++</td>
</tr>
<tr>
<td>or CIS 280</td>
<td>Object-Oriented Programming in C++</td>
</tr>
<tr>
<td>CHEM 111</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>CHEM 112</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>CIS 178</td>
<td>Programming in Fortran</td>
</tr>
<tr>
<td>or CIS 177</td>
<td>Programming in Pascal</td>
</tr>
<tr>
<td>or CIS 280</td>
<td>Object-Oriented Programming in C++</td>
</tr>
<tr>
<td>PHYS 201</td>
<td>Engineering Physics</td>
</tr>
<tr>
<td>or PHYS 202</td>
<td>Engineering Physics</td>
</tr>
<tr>
<td>or PHYS 203</td>
<td>Engineering Physics</td>
</tr>
<tr>
<td>CHEM 111</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>CHEM 112</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>CIS 280</td>
<td>Object-Oriented Programming in C++</td>
</tr>
<tr>
<td>PHYS 201</td>
<td>Engineering Physics</td>
</tr>
<tr>
<td>PHYS 202</td>
<td>Engineering Physics</td>
</tr>
<tr>
<td>PHYS 203</td>
<td>Engineering Physics</td>
</tr>
<tr>
<td>CHEM 111</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>CHEM 112</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>CIS 280</td>
<td>Object-Oriented Programming in C++</td>
</tr>
<tr>
<td>PHYS 201</td>
<td>Engineering Physics</td>
</tr>
<tr>
<td>PHYS 202</td>
<td>Engineering Physics</td>
</tr>
<tr>
<td>or PHYS 203</td>
<td>Engineering Physics</td>
</tr>
</tbody>
</table>

ASSOCIATE IN ARTS DEGREE:
Completes the above common lower division requirements and all AA degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: After transfer to a four year university and completion of the Bachelor’s Degree program, graduates
qualify for positions as mathematicians in government and industry, secondary teaching, graduate study, statisticians, and careers in computer science.

See Cerritos College Graduation Requirements.
See University General Education List.

MEDICAL ASSISTANT
PATIENT CARE AREAS

VERIFICATION OF COMPLETION
MEDICAL ASSISTANT—FRONT OFFICE

<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 60</td>
<td>Introduction to Medical Assisting</td>
<td>2</td>
</tr>
<tr>
<td>MA 62</td>
<td>Medical Insurance and Liability</td>
<td>3</td>
</tr>
<tr>
<td>MA 161</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>CIS 102</td>
<td>Introduction to Microcomputers Using Microsoft Office</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 45</td>
<td>Speech Communication for Careers</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL Verification Requirements 12

Employment in this field requires good vision, hearing, and the ability to communicate orally. In addition, the student must have the ability to comprehend and interpret written communication.

CAREER OPPORTUNITIES: Upon completion of the program, employment is available in a physician's office, large HMO, or hospital at an entry level position; i.e., receptionist, insurance clerk, and/or ward clerk.

Medical Assistant - Lab Technician
A Verification of Completion shall be awarded to the student who completes with a grade of "C" or better the following courses:

<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO 54</td>
<td>Medical Laboratory Skills</td>
<td>1</td>
</tr>
<tr>
<td>HO 55</td>
<td>Phlebotomy Procedures</td>
<td>1</td>
</tr>
<tr>
<td>MA 161</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 45</td>
<td>Speech Communication for Careers</td>
<td>1</td>
</tr>
</tbody>
</table>

6

Medical Assistant - Phlebotomist
A Verification of Completion shall be awarded to the student who completes with a grade of "C" or better the following courses:

<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO 55</td>
<td>Phlebotomy Procedures</td>
<td>1</td>
</tr>
<tr>
<td>MA 161</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 45</td>
<td>Speech Communication for Careers</td>
<td>1</td>
</tr>
</tbody>
</table>

5

Medical Assistant - EKG Technician
A Verification of Completion shall be awarded to the student who completes with a grade of "C" or better the following courses:

<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO 53</td>
<td>Electrocardiography</td>
<td>1</td>
</tr>
<tr>
<td>MA 161</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>SPCH 45</td>
<td>Speech Communication for Careers</td>
<td>1</td>
</tr>
</tbody>
</table>

5

MEDICAL ASSISTANT—911

Length and Kind of Program
The medical assistant program may be completed in two semesters with the curriculum leading to a Certificate of Achievement in Medical Assisting. The program culminates in a clinical lab experience which may be completed through an internship or occupational work experience.

Academic Requirements
To obtain a Certificate of Achievement, the student must achieve a grade of "C" or better in required medical assisting and general education course work. (Twelve units of the program must have been taken within the last five (5) years.) MA 67 and MA 68 have prerequisite courses which must be completed with a grade of "C" or better.

Expenses
A. See the college catalog for enrollment fees.
B. The student may expect to spend approximately $400 for books and uniforms. Health screening and immunizations will be at the student's expense.

Health
Health clearance requirements will vary depending on where lab experiences will be completed (MA 68, MA 73, MA 74). Students must present evidence of compliance with facility health standards. Standards will include, but are not limited to, TB testing and immunizations. Immunization records meeting the standards of the clinical site must be completed before the first class session.

Employment in this field requires good vision, hearing, and the ability to communicate orally. In addition, students must have the ability to comprehend, analyze, and evaluate patients' charts in order to provide appropriate treatment. Applicants must be able to record in patients' charts and have the dexterity to use small instruments to provide patient care.

Internship and Occupational Work Experience
To be placed in a health care facility where direct patient contact will occur (MA 68, MA 73, MA 74), the student must present evidence of health clearance and current certification in CPR and First Aid training. Health clearance, CPR and First Aid requirements must be valid for the duration of the clinical affiliation and must be submitted prior to placement in the clinical agency. Student placements are predominately during the day hours.

CPR certification may be obtained through American Heart Association Health Care Provider training (industry preferred) or American Red Cross Professional Rescuer Training. Standard First Aid training is available through the American Red Cross.

MEDICAL ASSISTANT—911
CERTIFICATE OF ACHIEVEMENT

<table>
<thead>
<tr>
<th>COURSE</th>
<th>TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 60</td>
<td>Introduction to Medical Assisting</td>
<td>2</td>
</tr>
<tr>
<td>MA 62</td>
<td>Medical Insurance and Liability</td>
<td>3</td>
</tr>
<tr>
<td>MA 64</td>
<td>Medical Office Assisting</td>
<td>3</td>
</tr>
<tr>
<td>MA 66</td>
<td>Medications and Specialties</td>
<td>3</td>
</tr>
<tr>
<td>MA 67</td>
<td>Medical Office Administration</td>
<td>3</td>
</tr>
<tr>
<td>MA 68</td>
<td>Medical Assisting Internship Experience</td>
<td>4</td>
</tr>
<tr>
<td>MA 73</td>
<td>Medical Assisting Occupational Work Experience</td>
<td>3</td>
</tr>
<tr>
<td>MA 74</td>
<td>Medical Assisting Occupational Work Experience</td>
<td>4</td>
</tr>
<tr>
<td>MA 161</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
</tbody>
</table>

120
HEALTH OCCUPATIONS
HO 53  Electrocardiography  1
HO 54  Medical Laboratory Skills  1
HO 55  Phlebotomy Procedures  1
HO 151  Elements of Nutrition  3
or HO 152  Nutrition (3)

PSYCHOLOGY
PSYC 101  General Introductory Psychology  3
or PSYC 150  Personal and Social Adjustment  (3)
TOTAL CERTIFICATE REQUIREMENTS:  (28)30

*Students may select one of these options to complete the medical assisting internship requirement. Only one option can be selected and the course may not be repeated more than one time.

Students who are currently employed in a medical office up to 19 hours per week, should enroll in MA 73. Students who are currently employed in a medical office more than 20 hours per week should enroll in MA 67.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Meet the requirements for a Certificate of Achievement in Medical Assisting. Plus, for an A.A. Degree a student must take A&P 120, electives and general education requirements to achieve a minimum of 60 units. See Cerritos College Graduation Requirements.

CAREER OPPORTUNITIES: Upon completion of the program, employment is available in a doctor's office working in a front or back office environment as a receptionist, insurance clerk and assisting the doctor.

See Cerritos College Graduation Requirements.

METALLURGY AND MATERIALS SCIENCE—862
CERTIFICATE OF ACHIEVEMENT PROGRAM

WELDING  UNITS
WELD 100  Welding Fundamentals  2

METALLURGY
MET 50  Heat Treatment of Nonferrous Metals  2
MET 100A  Metallurgy I  3
MET 120  Nondestructive Testing  3
MET 130A  Heat Treatment of Iron and Steel  2

CHEMISTRY
CHEM 100  Introductory Chemistry  4
or CHEM 110  Elementary Chemistry  (4)

TECHNICAL MATHEMATICS
TM 50  Technical Mathematics  3
or MATH 80  Intermediate Algebra  (4)
or MATH 140  Trigonometry  (3)
TOTAL CERTIFICATE REQUIREMENTS:  31 (32)

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete 60 units to include: (1) the above requirements for the Certificate of Achievement, (2) BCOM 148 or ENGL 100; or PHYS 100, or PHYS 101; MFGT 100, (3) the Associate in Arts Degree general education requirements, and (4) electives as needed.

RECOMMENDED ELECTIVES: MTT 170, DRAF 153

CAREER OPPORTUNITIES: The metallurgical technician may work several areas, such as metallographic lab, heat treating, quality control, research, non-destructive testing, physical testing, and engineering liaison.

See Cerritos College Graduation Requirements.

METALLURGY AND MATERIALS SCIENCE (MET)
SPECIALTY REQUIREMENTS
In order to obtain a Metallurgy Specialty, the student is encouraged to complete the required units for the Metallurgy and Materials Science degree. The four and a half to seven and a half units for the specialty may come from the units completed toward the degree or from additional courses outlined below. Students with previous coursework may also be considered for certificates upon providing transcripts for review through the matriculation process.

Metallurgy and Materials Science Specialty
MET 55  Laboratory Procedures  1.0
MET 100A  Metallurgy I  3.0
MET 100B  Metallurgy II  2.5

Ferrous Metallurgy Specialty
MET 52L  Metallurgy Specialty Lab  0.5
MET 53  Ferrous Metallurgy  2.5
MET 100A  Metallurgy I  3.0

Nonferrous Metallurgy Specialty
MET 54  Nonferrous Metallurgy  3.0
MET 56  Survey of Nonferrous Heat Treat  1.5
MET 100A  Metallurgy I  3.0

Nondestructive Testing Specialty (NDT)
MET 52L  Metallurgy Specialty Lab  0.5
MET 100A  Metallurgy I  3.0
MET 120  Nondestructive Testing (NDT)  2.5

Ferrous Heat Treat Specialty
MET 50L  Heat Treating of Ferrous Metals  1.5
MET 53  Ferrous Metallurgy  2.5
MET 100A  Metallurgy I  3.0

Nonferrous Heat Treat Specialty
MET 52L  Metallurgy Specialty Lab  0.5
MET 56  Survey of Nonferrous Heat Treat  1.5
MET 100A  Metallurgy I  3.0
Laboratory Specialty
MET 52L Metallurgy Specialty Lab 0.5
MET 55 Laboratory Procedures 1.0
MET 100A Metallurgy I 3.0

4.5

Welding Metallurgy Specialty
MET 51 Welding Metallurgy 2.0
MET 52L Metallurgy Specialty Lab 0.5
MET 100A Metallurgy I 3.0

5.5

Quality Specialty
MET 52L Metallurgy Specialty Lab 0.5
MFGT 53 Statistical Process Control (SPC) 1.5
MFGT 60 Quality Assurance (QA) 1.5
MET 100A Metallurgy I 3.0

6.5

MICROBIOLOGY—660

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete 60 units to include: (1) the above required courses, (2) electives as needed, and (3) the Associate in Arts Degree requirements.

CAREER OPPORTUNITIES: Bachelor’s Degree programs with an emphasis in Microbiology are designed to qualify the student for graduate study in the field. Various types of Federal employment; State Civil Service work such as Public Health Microbiologist; industrial microbiological work in divergent fields such as the pharmaceutical industry, brewing, industrial fermentation's, and the dairy industry; work as a hospital microbiologist or research technician positions in University research projects.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

MUSIC—125

TRANSFER PROGRAM
TRANSFER MUSIC MAJORS: Theory, private study/recital, and performance classes are required each semester of full-time program (4 semesters). Placement in the appropriate level of theory and private study is made by the Music Department.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
A minimum of 60 units to include: (1) The above music course and unit requirements, (2) the AA Degree general education requirements, and (3) electives as needed.


CAREER OPPORTUNITIES: Professional stage band, club work; arranging; copying; radio, television; choral groups; music stores; studio teaching; instrument repair.
MUS 100 Music History and Literature I 3
MUS 106, 107, Theory I, II, III, IV 5, 5, 5, 5
MUS 148, 149, Private Study/Recital I, II, III, IV 1, 1, 1, 1

VOICE STUDENTS
MUS 116, 117 Voice Class I, II 3-3
MUS 112, 113 Piano Class I, II 3-3

INSTRUMENTALISTS
MUS 112, 113 Piano Class I, II 3-3


ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

1. Completion of the A.A. degree general education and proficiency requirements;
2. Completion of a minimum of 60 degree applicable units;
3. Completion of at least 18 units of science related coursework from the following:
   a. courses in the Physical Sciences
   b. courses in the Biological Sciences
   c. a course in Mathematics above Intermediate Algebra

See Cerritos College Graduation Requirements.

CAREER OPPORTUNITIES: The transfer upper division programs are designed to prepare students for careers in teaching, conducting, arranging in such areas as studio performance. In times of stress, the client's coping mechanisms may be

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See Cerritos College Graduation Requirements.

PHILosophy
Nursing is defined as a science, discipline and health care practice that focuses on the assessment, diagnosis and treatment of clients having health programs within the domain of nursing. The goals of nursing practice focus on health promotion, illness prevention, rehabilitation, and supporting the resources of the person who is ill or threatened with illness in adapting to changes within the environment.

In addition to implementing the philosophy of the College, the purpose of the Nursing Department is to provide the community with registered nurses who are capable of functioning in a variety of health care settings. To accomplish this, the Roy Adaptation Model has been selected as the primary conceptual framework. Within this framework, nurses recognize their clients as biopsychosocial beings in constant interaction with the environment. In periods of health, individuals have both innate and learned behavioral mechanisms which enable them to cope with their complex internal and external environments. In times of stress, the client's coping mechanisms may be

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   a. courses in the Physical Sciences
   b. courses in the Biological Sciences
   c. a course in Mathematics above Intermediate Algebra

See Cerritos College Graduation Requirements.
disrupted and the individual is defined as ill. The client’s health status is defined on a continuum from wellness to illness.

Nursing practice focuses on adaptation of the client in four major modes: physiological, self-concept, role function, interdependence. The program prepares students to understand individuals as total beings and to recognize and respect a diversity of spiritual and cultural/ethnic values.

ROLE OF THE ASSOCIATE DEGREE NURSE

The Associate Degree Nurse (ADN) graduate is prepared to function as a provider of care, manager of care, and member of the discipline of nursing. As provider of care, the ADN utilizes the nursing process as a basis for decisions regarding delivery of care. As a manager of care, the ADN collaborates with other health care providers in organization and delegation of care. As a member of the discipline of nursing, the graduate is committed to professional growth, continuous learning, and self-development. In fulfilling these roles, the ADN graduate utilizes critical thinking, demonstrates clinical competence, and is accountable for and committed to the value of caring.

Nursing graduates are employed in a health care delivery system that continues to grow and change. The ADN graduate is an entry-level practitioner, and is competent to practice as a direct caregiver in a variety of structured settings in which service is provided to diverse client populations. ADN graduates may subsequently pursue bachelor’s, master’s, and doctoral degrees in nursing in preparation for advanced levels of practice.

CONCEPT OF EDUCATION

Nursing faculty believe that the purpose of education is to enlighten and enhance the quality of life for the student, the community and clients for whom students and graduates provide care. Education based on mastery learning is viewed by the nursing faculty as a collaborative process involving college administrators and staff, nursing faculty and nursing students. Each student enters the nursing program with unique characteristics, capabilities, learning styles, and motivation for learning. To address these differences, learning experiences are structured from simple to complex.

The goal of the program is to promote students’ creative and critical thinking and personal growth based on successful learning experiences. Achievement of this goal is fostered by encouraging self-direction and by providing a variety of individual and group learning experiences. Students are expected to participate actively in the learning process.

ADMISSION REQUIREMENTS

The nursing program welcomes all applicants. To be considered for acceptance into the program, the applicant must meet the following requirements:

1. High school graduation or the equivalent.
2. Satisfactory completion of READ 54, MATH 60 (formerly MATH 30) and ENGL 52 (formerly ENGL 50.2) or equivalent with grades of Credit or “C” or higher or the college placement test process. LVN applicants selecting the 30-unit option are required to complete the placement test process for advisement purposes but are not required to complete these courses.
3. Completion of or current enrollment in prerequisite courses with grades of “C” or higher. In-progress prerequisite course courses must be completed with grades of “C” or higher during semester of application to maintain eligibility to enter program.
4. Overall minimum of 2.0 Grade Point Average for all college work.

APPLICATION PROCESS:

STEP 1: If not previously enrolled at Cerritos College, the applicant should go to Admissions and Records (in Administration Building on Alondra Boulevard) and complete an admission form.
STEP 2: The applicant should then complete the college’s assessment test process. Test schedules are available in the Counseling Department. If assessment test requirements may already have been met by equivalent measures, the applicant should see a counselor for options.
STEP 3: The applicant should arrange to submit transcripts to both the Nursing Department and Admissions and Records Department.
   a. Official high school transcript or GED score and transcripts of any college work completed or in progress at colleges other than Cerritos College should be sent to: Cerritos College, Admissions and Records Office, 11110 Alondra Blvd., Norwalk, CA 90650.
   b. Transcripts (official or unofficial) for the above coursework and for work completed or in progress at Cerritos College to: Cerritos College, Health Occupations Division, Nursing Department, Norwalk, CA 90650.
STEP 4: After assessment tests have been completed and transcripts sent, the applicant should make an appointment with a counselor by calling 562-860-2451, ex. 2231; specifying that this is for completion of a nursing application. If transcripts have not been submitted prior to appointment, sealed official copies of transcripts may be hand-carried to the appointment.
STEP 5: When the applicant has completed the first page of the application and the counselor has completed the second page of the application, the applicant must bring or send the application to: Cerritos College, Health Occupations Division, Nursing Department, 11110 Alondra Blvd., Norwalk, CA 90650.

Although applications may be submitted at any time, all applications and required documentation must be in the Health Occupations Division Office not later than October 1 for January admission and March 1 for August admission. It is the applicant’s responsibility to make sure that all materials are submitted by the deadline.

After the application deadline, all applications are reviewed. For each option, 50% of available spaces will be filled by waiting list (applicants who qualified in prior semesters but were not admitted) and 50% by lottery. All new and waiting list applicants are eligible for selection by lottery. A lottery is scheduled approximately six weeks following the application deadline.

Applicants for Options B-F are selected on a space available basis. When applications are reviewed and lottery selection has been completed, applicants will be informed of their priorities for admission but it may not be possible at that time to project what openings will be available during the following semester.

SELECTION PROCEDURES AND STANDARDS

1. No application materials will be considered after the specified deadline (March 1 for Fall applicants and October 1 for Spring applicants).
2. The applicant must submit to the Health Occupations Division Office the following items:
   a. A completed application signed by the applicant and a Cerritos College counselor
   b. Verification of high school graduation or GED completion
c. Transcripts and work-in-progress verification

d. Assessment test results or indication by counselor that this requirement has been met

e. Any additional items required for specific option (see below)

3. LVN applicants and transfer students seeking entry at NRSG 208 (formerly NRSG 1.4 in curriculum being phased out) or NRSG 222 (new curriculum) will be scheduled for a medication calculation examination. Information regarding this examination will be provided prior to the testing date.

4. Option A applicants will be notified as to whether or not they were accepted into the nursing program approximately two weeks after the completion of the lottery process. Applicants seeking advanced placement will be informed of priority for admission based on lottery selection.

5. Students accepted into the nursing program and those identified as alternates are required to attend an orientation meeting. During the meeting, information will be given regarding textbooks, uniforms, registration procedures, and other content.

6. Applicants who are not admitted will receive notification indicating waiting list position. In order to maintain waiting list position, they must complete with a grade of “C” or higher any prerequisites that were in progress at time of application.

7. Student Rights: The nursing student has certain rights in addition to those reflected in the College Student Handbook. These include:
   a. The right to contact professional nursing boards regarding concerns about the educational program.
   b. The right to know of the existence of a policy giving credit for previous nursing education and/or experience.

LENGTH OF PROGRAM AND ANTICIPATED EXPENSES

The core nursing program consists of sequenced courses over a four-semester period. Prerequisite courses are completed prior to these four semesters. In addition general education courses are required for completion of the Associate in Arts degree in nursing (Associate Degree in Nursing - ADN). Some students may need to take additional courses to meet English, reading and mathematics requirements.

Each unit costs $11 for California residents, $125 for non-residents of California and $140 for international students. A College Services ID fee ($10) and Health Services Fee ($10) are assessed each semester.

During the four core semesters, lab material fees total approximately $115, textbooks approximately $1500, and additional supplies and uniforms approximately $350. Students are responsible for their own living arrangements, uniform laundry and transportation to clinical agencies. Application fees for licensure as a registered nurse range from $227 to $266.25.

Information about costs of NLN-accredited nursing programs is available from the National League for Nursing Accrediting Commission, 350 Hudson Street, New York, NY 10014; telephone (212) 989-9393.

ATTENDANCE

All students are expected to observe the attendance requirements of the Nursing Program as stated in the Nursing Program Student Handbook.

PROMOTION/PROGRESSION

In order to remain enrolled in and complete the program, the student must maintain a “C” grade or higher in all nursing courses and those general education courses specified by the California Board of Registered Nursing for completion of the nursing program. These courses include: ENGL 100, PSYCH 100, SOC 100, ENGL 100, and SPCH 100. In combined nursing lecture/lab courses, the student must receive a minimum of “C” in lecture and a satisfactory grade in lab in order to successfully complete the course.

REGISTERED NURSE LICENSE APPLICATION

At the completion of the fourth semester of the Nursing Program, the nursing student files an application for licensure (NCLEX-RN) with the Board of Registered Nursing. The application fee is $107 and the examination registration fee is $120. In addition, the student may apply for an interim permit for $30. These fees are subject to change by the Board of Registered Nursing.

As stated in the Board of Registered Nursing’s application for licensure:

Applicants are required under law to report all misdemeanor and felony convictions. “Driving under the influence” convictions must be reported. Convictions must be reported even if they have been expunged under Penal Code 1203.4 or if court ordered diversion program has been completed under the Penal Code or under Article 5 of the Vehicle Code. Also, all disciplinary action against an applicant’s registered nurse, practical nurse, vocational nurse, or other professional must be reported. Failure to report prior convictions or disciplinary action is considered falsification of application and is grounds for denial of licensure or revocation of license. To make a determination [regarding eligibility for licensure] the Board considers the nature and severity of the offense, additional subsequent acts, recency of acts or crimes, compliance with court sanctions, and evidence of rehabilitation.

NURSING PROGRAM OPTIONS

There are six enrollment options in the Nursing Program:

A. Associate in Arts Degree (also referred to as the “generic” option or Associate Degree in Nursing) - 914

B. LPT-ADN (Licensed Psychiatric Technician to Associate Degree in Nursing) - 914

C. LVN-ADN (Licensed Vocational Nurse to Associate Degree in Nursing) - 914

D. LVN-30 Unit Option (LVN + 30 units qualifying for NCLEX-RN, non-degree)

E. Transfer and Challenge

F. Board of Registered Nursing Referral

For Options A, B, C, and E - To graduate with an Associate in Arts Degree in Nursing, the student is required to complete, in addition to the nursing core courses and nursing-related courses, the following general education courses: ENGL 100, POL SCI 101 or POL SCI 201, PSYCH 100, SOC 100, SPCH 100 or SPCH 120 or SPCH 130 or SPCH 132, and one (1) 3-unit course EACH in the following areas selected from the College’s General Education Requirements (listed in the College General Catalog and Schedule of Classes): Fine Arts, Humanities and U.S. History.

A new curriculum will begin implementation in Fall 2000. Each option listed below includes two components, the curriculum being phased out (last Option A class entered in Spring 2000) which will complete its final courses in Fall 2001, and the new curriculum.

125
OPTION A—
ASSOCIATE IN ARTS DEGREE—914
CURRICULUM BEING PHASED OUT:
PREREQUISITES:
A&P 130 (formerly A&P 40), MICR 200 (formerly MICR 1), and HO 151 (formerly HO 51) or HO 152 (formerly HO 52) with grades of Credit or “C” or higher. Successful completion of READ 54, MATH 60 (formerly MATH 30), and ENGL 52 (formerly ENGL 50.2) or equivalents with grades of Credit or “C” or higher or the college placement test process.

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Semester I</th>
<th></th>
<th>UNITS</th>
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<tbody>
<tr>
<td>+NRSG 1.1 (NRSG 205)**Medical-Surgical Nursing I</td>
<td></td>
<td>5</td>
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<tr>
<td>+NRSG 1.2 (NRSG 206)**Medical-Surgical Nursing II</td>
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<tr>
<td>NRSG 20 (NRSG 200)#Fundamentals of Medication for Nurses</td>
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<td>+ = last offered SPR 2000</td>
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<tr>
<th>Semester II</th>
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<tr>
<td>+NRSG 1.3 (NRSG 207)**Medical-Surgical Nursing III</td>
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<td>+NRSG 1.4 (NRSG 208)**Obstetrical-Pediatric Nursing</td>
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<tr>
<td>HO 236 Life Span/Health Issues 1</td>
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<td>HO 237 Life Span/Health Issues 2</td>
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<tr>
<th>Semester III</th>
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<tr>
<td>+NRSG 2.2 (NRSG 218) **Psychosocial Nursing</td>
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<tr>
<td>+NRSG 2.1 (NRSG 219) **Medical-Surgical Nursing IV</td>
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<td>+ last offered SPR 2001</td>
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Semester IV

| +NRSG 2.3 (NRSG 270) **Medical-Surgical Nursing V |  | 5     |
| +NRSG 2.4 (NRSG 280) * Professional Role Transition |  | 3     |
| + last offered FA 2001 |  |        |

*6-week courses **9-week courses #Course must be taken prior to or concurrent with the semester listed.

NEW CURRICULUM, BEGINNING FALL 2000
PREREQUISITES:
A&P 130, MICR 200, HO 152, HO 151, HO 236 & HO 237, and PSYCH 100 or equivalents with grades of Credit or “C” or higher. Successful completion of READ 54, MATH 60, and ENGL 52 or equivalents with grades of Credit or “C” or higher or the college placement test process.

REQUIRED COURSES

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<tr>
<th>Semester 1</th>
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<tbody>
<tr>
<td>NRSG 210</td>
<td>*Fundamentals of Nursing</td>
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<tr>
<td>NRSG 211</td>
<td>*Introduction to Theoretical Framework</td>
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<td>NRSG 212</td>
<td>*Medical-Surgical Nursing 1</td>
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<td>NRSG 213</td>
<td>*Survey of Pharmacology</td>
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<td>NRSG 214</td>
<td>*Medical-Surgical Nursing 2</td>
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<td>NRSG 220</td>
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<td>NRSG 222</td>
<td>**Maternal/Child Nursing</td>
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<td>NRSG 230</td>
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<td>NRSG 232</td>
<td>**Medical-Surgical Nursing 4</td>
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<td>NRSG 240</td>
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<tr>
<td>NRSG 242</td>
<td>*Professional Role Transition</td>
<td>3</td>
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*6-week courses **9-week courses

OPTION B—
LPT-ADN MOBILITY PROGRAM—914
The Nursing Program offers to qualified Licensed Psychiatric Technician applicants an opportunity to prepare for professional nursing through the pursuit of specific knowledge and skills. Graduates from the program, in addition to receiving an Associate of Arts Degree, are eligible for the NCLEX-RN examination for license as a registered nurse.

CURRICULUM BEING PHASED OUT
PREREQUISITES:
A&P 130 (formerly A&P 40), MICR 200 (formerly MICR 1), HO 152 (formerly HO 52), NRSG 25, NRSG 200 (formerly NRSG 20), NRSG 211, and NRSG 251 or equivalent with grades of Credit or “C” or higher. READ 54, MATH 60 (formerly MATH 30), and ENGL 52 (formerly ENGL 50.2) or equivalent with grades of Credit or “C” or higher or the college placement test process. Valid California LPT license.

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<td>+NRSG 2.1 (219) **Medical-Surgical Nursing IV</td>
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<td>+NRSG 2.4 (280)2 *Professional Role Transition</td>
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*6-week courses **9-week courses

NEW CURRICULUM
PREREQUISITES:
A&P 130, MICR 200, HO 152, HO 236 & 237, PSYCH 100, NRSG 25, NRSG 200, NRSG 211, and NRSG 251 or equivalents with grades of Credit or “C” or higher. READ 54, MATH 60, and ENGL 52 or equivalents with grades of Credit or “C” or higher or the college placement test process. Valid California LPT license.
Curricula, Requirements for Majors, Certificates and Transfer Programs

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<td><strong>Psychosocial and Community Nursing</strong></td>
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<td><strong>Medical-Surgical Nursing 4</strong></td>
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</tbody>
</table>

*6-week courses **9-week courses

OPTION C—LVN-ADN MOBILITY PROGRAM—914

The Nursing Program offers to qualified Licensed Vocational Nurse applicants an opportunity to prepare for professional nursing through the pursuit of specific knowledge and skills. Graduates from the program, in addition to receiving an Associate in Arts Degree, are eligible for the NCLEX-RN examination for licensure as a registered nurse.

CURRICULUM BEING PHASED OUT

PREREQUISITES:
A&P 130 (formerly A&P 40), MICR 200 (formerly MICR 1), and NRSG 105 (formerly NRSG 1.5, last offered in SU 2000) or equivalent with grades of Credit or “C” or higher. Successful completion of READ 54, MATH 60 (formerly MATH 30) and ENGL 52 (formerly ENGL 50.2) or equivalent with grades of Credit or “C” or higher or the college placement test process. Valid California LVN license. Completion of a medication calculation examination with a score of 75% or higher.

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester I</strong></td>
<td><strong>NRSG 2.2 (218)</strong></td>
<td><strong>Psychosocial Community Nursing</strong></td>
</tr>
<tr>
<td></td>
<td><strong>NRSG 2.1 (219)</strong></td>
<td><strong>Medical-Surgical Nursing IV</strong></td>
</tr>
<tr>
<td></td>
<td><strong>HO 236</strong></td>
<td>Life Span/Health Issues 1</td>
</tr>
<tr>
<td></td>
<td><strong>HO 237</strong></td>
<td>Life Span/Health Issues 2</td>
</tr>
<tr>
<td></td>
<td>+ last offered SP 2001</td>
<td></td>
</tr>
<tr>
<td><strong>Semester II</strong></td>
<td><strong>NRSG 2.3 (270)</strong></td>
<td><strong>Medical-Surgical Nursing V</strong></td>
</tr>
<tr>
<td></td>
<td><strong>NRSG 2.4 (280)</strong></td>
<td><strong>Professional Role Transition</strong></td>
</tr>
<tr>
<td></td>
<td>+ last offered FA 2001</td>
<td></td>
</tr>
</tbody>
</table>

*6-week course **9-week courses

NEW CURRICULUM

PREREQUISITES:
A&P 130, MICR 200, HO 236 or HO 237, NRSG 215, and NRSG 27, or equivalent with grades of “C” or higher. Completion of the college placement test process for advisement purposes. Valid California LVN license. Completion of a medication calculation examination with a score of 75% or higher.

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td><strong>NRSG 230</strong></td>
<td><strong>Psychosocial and Community Nursing</strong></td>
</tr>
<tr>
<td></td>
<td><strong>NRSG 232</strong></td>
<td><strong>Medical-Surgical Nursing 4</strong></td>
</tr>
<tr>
<td><strong>Semester 2</strong></td>
<td><strong>NRSG 240</strong></td>
<td><strong>Medical-Surgical Nursing 5</strong></td>
</tr>
<tr>
<td></td>
<td><strong>NRSG 242</strong></td>
<td><strong>Professional Role Transition</strong></td>
</tr>
</tbody>
</table>

*6-week course **9-week courses

OPTION D—LVN—30 UNIT OPTION

The Nursing Program offers to qualified Licensed Vocational Nurse applicants an opportunity to prepare for registered nurse licensure by completing thirty (30) units of college course work. The LVN who completes the thirty units designated by Cerritos College is eligible for the NCLEX-RN examination for licensure as a registered nurse.

CURRICULUM BEING PHASED OUT

PREREQUISITES:
A&P 130 (formerly A&P 40), MICR 200 (formerly MICR 1) and NRSG 105 (formerly NRSG 1.5, last offered in SU 2000) or equivalent with grades of Credit or “C” or higher. Completion of the college placement test process for advisement purposes. Valid California LVN license. Completion of a medication calculation examination with a score of 75% or higher.

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester I</strong></td>
<td><strong>NRSG 2.2 (218)</strong></td>
<td><strong>Psychosocial Community Nursing</strong></td>
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<tr>
<td></td>
<td><strong>NRSG 2.1 (219)</strong></td>
<td><strong>Medical-Surgical Nursing IV</strong></td>
</tr>
<tr>
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<td>+ last offered SP 2001</td>
<td></td>
</tr>
<tr>
<td><strong>Semester II</strong></td>
<td><strong>NRSG 2.3 (270)</strong></td>
<td><strong>Medical-Surgical Nursing V</strong></td>
</tr>
<tr>
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<td><strong>NRSG 2.4 (280)</strong></td>
<td><strong>Professional Role Transition</strong></td>
</tr>
<tr>
<td></td>
<td>+ last offered FA 2001</td>
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</tr>
</tbody>
</table>

*6-week course **9-week courses

NEW CURRICULUM

PREREQUISITES:
A&P 130, MICR 200, HO 236 or HO 237, NRSG 215, and NRSG 27, or equivalent with grades of “C” or higher. Completion of the college placement test process for advisement purposes. Valid California LVN license. Completion of a medication calculation examination with a score of 75% or higher.

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester 1</strong></td>
<td><strong>NRSG 230</strong></td>
<td><strong>Psychosocial and Community Nursing</strong></td>
</tr>
<tr>
<td></td>
<td><strong>NRSG 232</strong></td>
<td><strong>Medical-Surgical Nursing 4</strong></td>
</tr>
<tr>
<td><strong>Semester 2</strong></td>
<td><strong>NRSG 240</strong></td>
<td><strong>Medical-Surgical Nursing 5</strong></td>
</tr>
<tr>
<td></td>
<td><strong>NRSG 242</strong></td>
<td><strong>Professional Role Transition</strong></td>
</tr>
</tbody>
</table>

*6-week course **9-week courses
OPTION E—TRANSFER AND CHALLENGE

PREREQUISITES:
A&P 130, MICR 1, HO 152, 236, and 237, NRSNG 27, 200, 215, and 251, and PSYCH 100, or equivalent with grades of Credit or “C” or higher. READ 54, MATH 60 and ENGL 52, or equivalent with grades of Credit or “C” or higher or the college placement test process. Students applying under this option will be notified individually for additional requirements relative to their entry points in the curriculum.

CREDIT GRANTING POLICY: Students who have successfully completed academic courses and/or have relevant knowledge and/or skills acquired in other than an accredited institution will be given advanced standing in the nursing program upon verification of such knowledge and/or skills.

TRANSFER CREDIT
A. Credit will be granted for related previous education completed in:
   1. Accredited Vocational or Practical Nursing courses
   2. Accredited Registered Nursing courses
   3. Accredited Psychiatric Technician courses
   4. Armed services nursing courses
   5. Certified Nursing Assistant courses
   6. Other related courses (e.g., Anatomy and Physiology, Nutrition)
B. Official transcripts and/or copies of certificates of completion must be submitted for credit to be granted.
C. Credit will be granted based upon the content and hours of transferring courses and must be equivalent to courses in the Cerritos College Nursing Program.

CHALLENGE CREDIT (Competency-based)
A. Credit may be granted for relevant knowledge and/or skills acquired through prior experience, courses in non-accredited institutions, and individual study which are essentially equivalent to a course for which credit is being requested.
B. Credit shall be determined by successful completion of a comprehensive written examination and/or practical evaluation.
C. Objectives for both the written and/or practical examinations are made available to the student prior to evaluation.
D. Student must meet the requirements which govern credit by examination as stated in the college catalog.
E. A minimum of twelve (12) units of the nursing curriculum must be in residency at Cerritos College in order to receive the Associate Degree in Nursing.

OPTION F—BOARD OF REGISTERED NURSING REFERRAL
Applicants for California licensure as registered nurses may be referred by the Board of Registered Nursing to complete specific areas of nursing content prior to taking the NCLEX-RN examination. The Nursing Program offers such applicants the opportunity to complete nursing preparation as specified by the Board of Registered Nursing.

PREREQUISITES: A valid letter of referral from the California Board of Registered Nursing for completion of a specified area. NRSNG 27 and 215 or equivalents with grades of Credit or “C” or higher.

NURSING RN—640
TRANSFER PROGRAM
LOWER DIVISION MAJOR REQUIREMENTS
FOR SPECIFIC TRANSFER INSTITUTIONS
California State University - Fullerton
   Admission requirements as follows:
   Meet requirements for admission to the university as a transfer student.
   Completion of an AA degree in Nursing or its equivalent.
   Current licensure as a registered nurse in California.
   Completion of one college level course in each of the following:
   A&P 200, A&P 201, CHEM 100, MICR 200, PSYC 101, SOC 101 or ANTH 100.
   Completion of one year of satisfactory work experience as a registered nurse recommended.

California State University - Los Angeles
   A&P 200 Human Anatomy 5
   A&P 201 Human Physiology 5
   CHEM 100 Introductory Chemistry 4
   MICR 200 Principles & Applications of Microbiology 5
   PSYC 101 General Introductory Psychology 3
   SOC 101 Introductory Sociology Principles 3
   (The CSULA CHEM 152 requirement must be taken at CSULA. An equivalent course is not available at Cerritos College).

REGISTERED NURSE STUDENTS NOTE: “Students who transfer from Community Colleges with an AA Degree in Nursing and the RN are admitted to the upper division Nursing Program at CSULA.”

California State University - Long Beach
   A&P 200 Human Anatomy 5
   A&P 201 Human Physiology 5
   MICR 200 Principles of Microbiology and Bacteriology 5
   PSYC 101 General Introductory Psychology 3
   SOC 101 Introductory Sociology Principles 3
   (The CSULA CHEM 152 requirement must be taken at CSULA. An equivalent course is not available at Cerritos College).

NOTE: Because Cerritos College does not offer comparable courses, students should plan to take the required chemistry courses (CHEM 200 and 300) at CSULB. (CHEM 100 at Cerritos College may meet the CHEM 200 requirement if the student passes a competency test at CSULB.)

University of California - Los Angeles
   UCLA School of Nursing
   The following is a list of courses required to fulfill the UCLA School of nursing prerequisites. Applicants to the UCLA School of Nursing do not need to complete the IGETC requirements.
   A&P 200 Human Anatomy 5
   A&P 201 Human Physiology 5
   BIOL 200 Principles of Biology 5
   BIOL 201 Principles of Biology 5
   CHEM 111 General Chemistry 5
   CHEM 112 General Chemistry 5
   CHEM 211 Organic Chemistry 5
   CHEM 212 Organic Chemistry 5
   ENGL 100 Freshman Composition 3
### ENGL 102 Freshman Composition and Literature 3
### MICR 200 Principles and Applications of Microbiology 5
### PHYS 100 Elementary Physics 4
### PSYC 101 General Introductory Psychology 3
### SOC 101 Introductory Sociology Principles 3

Selected courses from Literature, The Arts, Philosophy, Language & Linguistic, Culture & Civilization (3 Semester Units).

**NOTE:**
1. Applicants must hold licensure as a Registered Nurse.
2. Applicants must have completed 90 to 105 transferable quarter units (60 to 70 semester units), including 30 units given for ACT exams to enter the school of Nursing.
3. Applicants must have a 3.0 cumulative GPA and a minimum grade of "C" in each prerequisite course.
4. Applicants must have completed the University; American History and Institutions requirements.

**CAREER OPPORTUNITIES:** Baccalaureate program graduates are prepared to function as a professional nurse in the primary care role in a variety of health settings, such as Hospitals, Clinics, Doctor's offices, Jails, and Armed Services.

See State University General Education List.

### ORNAMENTAL HORTICULTURE—686 CERTIFICATE OF ACHIEVEMENT PROGRAM

<table>
<thead>
<tr>
<th>DEPARTMENT REQUIREMENTS</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORNH 100 Introduction to Ornamental Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>ORNH 110 Soils</td>
<td>4</td>
</tr>
<tr>
<td>ORNH 120 Ornamental Trees</td>
<td>4</td>
</tr>
<tr>
<td>ORNH 130 Ornamental Shrubs</td>
<td>4</td>
</tr>
<tr>
<td>ORNH 150 Turfgrass Management and Ground Covers</td>
<td>4</td>
</tr>
<tr>
<td>ORNH 160 Insects and Weeds</td>
<td>4</td>
</tr>
<tr>
<td>ORNH 180 Basic Landscape Design</td>
<td>4</td>
</tr>
</tbody>
</table>

**TOTAL CERTIFICATE REQUIREMENTS:** 27

**ASSOCIATE IN ARTS DEGREE REQUIREMENTS:**
Meet the above requirements for a Certificate of Achievement in Ornamental Horticulture. For an A.A., a student must take a minimum of six units from ORNH 140, PSYC 101, BA 123, CHEM 110, BOT 120, or BA 107, electives and A.A. Degree general education requirements to achieve a minimum of 60 units.

**RECOMMENDED ELECTIVES:** ORNH 58, ORNH 190.

**CAREER OPPORTUNITIES:** Nursery industry, parks and recreation departments; nursery supply companies.

See Cerritos College Graduation Requirements.

### ORNAMENTAL HORTICULTURE LANDSCAPE DESIGN AND MAINTENANCE—687 CERTIFICATE OF ACHIEVEMENT

<table>
<thead>
<tr>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 110 Architectural Drawing</td>
</tr>
<tr>
<td>ARCH 122 Architectural Delineation</td>
</tr>
<tr>
<td>ORNH 50 Basic Landscape Irrigation</td>
</tr>
<tr>
<td>ORNH 100 Intro to Ornamental Horticulture</td>
</tr>
<tr>
<td>ORNH 110 Soils</td>
</tr>
<tr>
<td>ORNH 120 Ornamental Trees</td>
</tr>
</tbody>
</table>

**TOTAL CERTIFICATE REQUIREMENTS**

**RECOMMENDED ELECTIVES:** DRAF 131, ER 16.

### ORNAMENTAL HORTICULTURE FLORAL DESIGN—689 CERTIFICATE OF ACHIEVEMENT

<table>
<thead>
<tr>
<th>DEPARTMENT REQUIREMENTS</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORNH 58 Interior Plantscapes</td>
<td>2</td>
</tr>
<tr>
<td>ORNH 59 Basic Floral Design</td>
<td>2</td>
</tr>
<tr>
<td>ORNH 60 Advanced Floral Design</td>
<td>2</td>
</tr>
<tr>
<td>ORNH 61A Special Occasions Floral Design I</td>
<td>2</td>
</tr>
<tr>
<td>ORNH 61B Special Occasions Floral Design II</td>
<td>2</td>
</tr>
<tr>
<td>ORNH 62B Wedding Floral Design I</td>
<td>2</td>
</tr>
<tr>
<td>ORNH 62C Wedding Floral Design II</td>
<td>2</td>
</tr>
<tr>
<td>ORNH 63 Integrated Floral Design</td>
<td>1</td>
</tr>
<tr>
<td>ORNH 64 Floral Design for Funerals</td>
<td>1</td>
</tr>
<tr>
<td>ORNH 100 Introduction to Ornamental Horticulture</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 100 Introduction to Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BA 53 Small Business Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL UNITS REQUIRED** 25

**RECOMMENDED ELECTIVES:**

This program is designed to provide practical training to enable students to secure employment as floral designers. The course offerings extend from entry level floral designing to a variety of advanced floral design courses. Also included are courses which will prepare the student to become a manager or owner of a floral shop.

### PHARMACY TECHNOLOGY

**Pharmacy Clerk Program**

The pharmacy clerk is a non-registered, technical worker who performs the minimum non-discretionary tasks as allowed by the Board of Pharmacy of the State of California, under the direct supervision of a registered pharmacist. Employment in this field requires applicants to have good vision, hearing, the ability to communicate...
oral and the physical ability to perform tasks required of a pharmacy clerk. A Verification of Completion shall be awarded to the student who completes with a grade of “C” or better the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHAR 40L Pharmacy Clerk Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHAR 45 Retail Products for Pharmacy Clerks</td>
<td>2</td>
</tr>
<tr>
<td>PHAR 47 Pharmacy Clerk Clinical Experience</td>
<td>2</td>
</tr>
<tr>
<td>PHAR 60 Introduction to Pharmacy</td>
<td>1</td>
</tr>
<tr>
<td>PHAR 61 Pharmacy Skills Development</td>
<td>1</td>
</tr>
<tr>
<td>MATH 20 Basic Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>*BASS 62 Microcomputer Keyboarding</td>
<td>1</td>
</tr>
<tr>
<td>OR *BASS 135 Typewriting Speed/Control Building</td>
<td>1</td>
</tr>
</tbody>
</table>

TOTAL UNITS REQUIRED: 11

*Students who provide documented ability to type 35 wpm or more may choose to waive the keyboarding requirement.

PHARMACY TECHNICIAN— 920

The pharmacy technician is a skilled technical health worker who performs a wide variety of non-discretionary pharmacy related tasks under the direct supervision of a registered pharmacist. Successful completion of the pharmacy technician program qualifies one for registration with the California State Board of Pharmacy. Graduates are also encouraged to complete the Pharmacy Technician Certification Exam, the nationally recognized certification exam for pharmacy technicians.

LENGTH AND KIND OF PROGRAM

General education and Pharmacy technician classes are scheduled on the college campus. Correlated clinical experiences take place in selected hospitals and community pharmacies throughout the area. This broad-based program is especially suited for those students who may later choose to pursue higher education in health care areas. Courses are taught by practicing registered pharmacists and pharmacy technicians and are offered during the day and evening.

ADMISSION PROCEDURES AND REQUIREMENTS

1. Academic Requirements
   a. High School graduate or equivalent.
   b. Acceptable scores on the College Placement Tests for Writing, Mathematics and Reading clearance or deficiencies removed.

2. Health
   a. Employment in this field requires applicants to have good vision, hearing, and the ability to communicate orally.
   b. Applicants must present evidence of physical fitness and ability to perform tasks required of a pharmacy technician. Lab, x-ray and immunization records meeting the standards of the clinical site must be completed after acceptance into the program.

3. Additional consideration will be given for work experience in the field of pharmacy technician or related area, and for students who have completed additional science classes.

4. The reading proficiency requirement may be met by completing READ 54 with a grade of Credit or “C” or higher.

5. For other options see your counselor.
   c. A&P 120 or equivalent course with a grade of Credit or “C” or higher is recommended prior to enrolling for the Pharmacology courses. (PHAR 83 and PHAR 85)
   d. All deficiencies in academic requirements must be removed. An overall grade point average of 2.0 must be attained prior to admission to the Pharmacy Technician Program.

SELECTION PROCEDURES

Academic Evaluation

1. All required documents, including transcripts, test scores, and work-in-progress reports must be in the Health Occupations Division Office by October 1 for Fall admission to PHAR 62 or by February 15 for Spring admission to PHAR 62.
2. No student whose college grade point average is below 2.0, or who has not cleared Writing, Math, or Reading deficiencies can be considered. These are considered minimum standards of academic preparation.
3. Additional consideration will be given for work experience in the field of pharmacy technician or related area, and for students who have completed additional science classes.

EXPENSES

Students are expected to purchase a student body card. Enrollment fees, project fees, uniforms, books, and supplies will cost approximately $800.00. Students are responsible for their own living accommodations, uniform laundry, and transportation to selected hospitals and clinics.

ATTENDANCE AND SCHOLARSHIP

All students are expected to observe the attendance requirements of the college and of the Pharmacy Technician Program. To remain in the program, the student must maintain a “C” or higher in each required course. Uniforms are required in all lab classes and name tags are required in all classes.

PROCEDURE FOR APPLICATION

(To be completed in order as listed)

1. Complete application to the program. An application may be obtained in either the Health Occupations Division (562) 860-2451 extension 2550, or Counseling Office, extension 2231; or by sending a self-addressed, stamped envelope to: Pharmacy Technician Program, Cerritos College, 11110 Alondra Blvd., Norwalk, CA 90650. The application must be returned by October 1 for Fall admission (current semester) or February 15 for Spring admission (current semester).
2. Submit proof of High School graduation or equivalent.
3. Submit an official transcript of all college work to the Admissions and Records Office and a copy to the Health Occupations Division. A “work-in-progress” must be submitted for all prerequisites in progress at the time of application.

4. Submit assessment test scores for English, Reading, and Math with your application by October 1 or February 15. If you have not taken these tests, proof of clearance by course work must appear on your college transcript. If you do not have course work or test scores to submit, apply to Cerritos College, obtain a student number, take the assessment test battery at the Assessment Center and record your test date on your program application.

5. It is advised that you make an appointment with a counselor to review test scores and college work. To make an appointment with a counselor, call (562) 860-2451, extension 2231.

6. You will be notified of acceptance or non-acceptance after applications are reviewed.

7. If you are accepted into the Pharmacy Technician Program, you must obtain a valid CPR card for Basic Life Support (Course Level “C” or C.P.R. for health care providers), offered through the Heart Association or the American Red Cross prior to the first clinical experience.

**The program has made every reasonable effort to determine that everything stated in the information sheet is accurate. Matters contained herein, are subject to change without notice by the administration of the department for reasons related to student enrollment, level of financial support or for any reason at the discretion of the Program. The Program further reserves the right to add, amend, or repeal any of the rules, regulations, policies and procedures, consistent with applicable laws.

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**CERTIFICATE OF ACHIEVEMENT**

**REQUIRED COURSES**

<table>
<thead>
<tr>
<th>COURSE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO 56</td>
<td>Medication Calculations</td>
</tr>
<tr>
<td>PHAR 50</td>
<td>Pharmaceutics</td>
</tr>
<tr>
<td>PHAR 60</td>
<td>Introduction to Pharmacy</td>
</tr>
<tr>
<td>PHAR 61</td>
<td>Pharmacy Skills Development</td>
</tr>
<tr>
<td>PHAR 62</td>
<td>Pharmacy Operations I</td>
</tr>
<tr>
<td>PHAR 63</td>
<td>Pharmacy Operations II</td>
</tr>
<tr>
<td>PHAR 64</td>
<td>Pharmacy Operations III</td>
</tr>
<tr>
<td>PHAR 81</td>
<td>Over-The-Counter Products</td>
</tr>
<tr>
<td>PHAR 83</td>
<td>Pharmacy Technician Pharmacology I</td>
</tr>
<tr>
<td>PHAR 85</td>
<td>Pharmacy Technician Pharmacology II</td>
</tr>
<tr>
<td>PHAR 90</td>
<td>Clinical Experience I</td>
</tr>
<tr>
<td>PHAR 95</td>
<td>Clinical Experience II</td>
</tr>
<tr>
<td>MA 161</td>
<td>Medical Terminology</td>
</tr>
<tr>
<td>PHAR 73/74</td>
<td>Pharmacy Technician Occupational Work Experience</td>
</tr>
<tr>
<td>(Optional)</td>
<td></td>
</tr>
<tr>
<td>BASS 62</td>
<td>Microcomputer Keyboarding</td>
</tr>
<tr>
<td>BASS 135</td>
<td>Typewriting Speed/Control Building</td>
</tr>
</tbody>
</table>

**TOTAL CERTIFICATE REQUIREMENTS:** 31.0

**ASSOCIATE IN ARTS DEGREE REQUIREMENTS:**

Meet the requirements for a Certificate of Achievement in Pharmacy Technician. For an A.A. Degree, a student must also take CIS 101, electives and general education to achieve a minimum of 60 units.

**CAREER OPPORTUNITIES:** Employment as a Pharmacy Technician in community or hospital pharmacy assisting registered pharmacist in the performance of assigned duties.

See Cerritos College Graduation Requirements.

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**PHILOSOPHY—570**

**TRANSFER PROGRAM**

**LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC SCHOOLS**

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>REQUIREMENTS</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>California State University - Dominguez Hills</td>
<td>PHIL 100 Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>California State University - Fullerton</td>
<td>PHIL 100 Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PHIL 106 Introduction to Logic</td>
<td>3</td>
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<tr>
<td>California State University - Long Beach</td>
<td>PHIL 100 Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or PHIL 102 Introduction to Ethics</td>
<td>3</td>
</tr>
<tr>
<td>California State University - Los Angeles</td>
<td>PHIL 100 Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>University of California - Irvine</td>
<td>At least one course from each area, A-D:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENGL 100 Freshman Composition</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ENGL 102 Freshman Composition and Literature</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ENGL 103 Critical and Argumentative Writing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>B)</td>
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<tr>
<td></td>
<td>ENGL 230A Introduction to American Literature</td>
<td>3</td>
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<tr>
<td></td>
<td>ENGL 230B Introduction to American Literature</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ENGL 246A Survey of English Literature</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ENGL 246B Survey of English Literature</td>
<td>3</td>
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<tr>
<td></td>
<td>ENGL 248A Masterpieces of World Literature</td>
<td>3</td>
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<tr>
<td></td>
<td>ENGL 248B Masterpieces of World Literature</td>
<td>3</td>
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<tr>
<td></td>
<td>HIST 240 Western Civilization</td>
<td>3</td>
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<td>HIST 241 Western Civilization</td>
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<td></td>
<td>PHIL 100 Introduction to Philosophy</td>
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**ADDITIONAL REQUIREMENTS:**

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<thead>
<tr>
<th>COURSE</th>
<th>UNITS</th>
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<tr>
<td>FREN 201 &amp; 202 Intermediate French</td>
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<tr>
<td>GERM 201 &amp; 202 Intermediate German</td>
<td>4 (4)</td>
</tr>
<tr>
<td>JAPN 201 &amp; 202 Intermediate Japanese</td>
<td>5 (4)</td>
</tr>
<tr>
<td>SPAN 201 &amp; 202 Intermediate Spanish</td>
<td>5 (4)</td>
</tr>
</tbody>
</table>

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<thead>
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<th>SCHOOL</th>
<th>REQUIREMENTS</th>
<th>UNITS</th>
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<tr>
<td>University of California - Los Angeles</td>
<td>PHIL 102 Introduction to Ethics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PHIL 202 Critical Thinking and Argumentative Writing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or PHIL 106 Introduction to Logic</td>
<td>3</td>
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</tbody>
</table>
ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all AA degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: The philosophy major is intended for students who plan to teach philosophy, for pre-professional students in such areas as theology, law, and as a foundation for graduate studies in the areas of library science, social science, diplomacy, theoretical physical science, and specialized historical studies.

See Cerritos College Graduation Requirements.
See State University General Education List.

PHOTOGRAPHY—150
ASSOCIATE IN ARTS DEGREE PROGRAM
MAJOR REQUIREMENTS (26 UNITS) UNITS+QL
DEPARTMENT REQUIREMENTS (18 UNITS)+QL
PHOT 100 Introductory Photography 3
PHOT 102 Intermediate Photography 3
PHOT 120 Introduction to Color Slide Photography 3
PHOT 200 Advanced Photography 3
PHOT 234 Portfolio Development 3
PHOT 240 Experimental Photography 3
SELECT 5 UNITS MINIMUM COURSE WORK FROM THE FOLLOWING:
PHOT 124 Intermediate Color Photography 2
PHOT 220 Advanced Color Photography 3
PHOT 230 Portraiture 3
PHOT 242 Non-Silver Photography 3
PHOT 250 Contemporary Photographic Expression 3
PHOT 298 Directed Studies 1
OR PHOT 299 Directed Studies 2
JOUR 130 Photo Journalism 3
SELECT 3 UNITS MINIMUM COURSE WORK FROM THE FOLLOWING:
ART 120 Two-Dimensional Design 3
ART 184 Graphic Design I 3
JOUR 105 Newspaper Production 2
JOUR 160 College Magazine Production 1
BA 54 Retail Display 3
BA 121 Sales 3
TH 123 Stage Make-Up 2
TH 156 Video Production 3
NOTE: 35 mm camera and film are provided by each student. Laboratory fees are also required. Refer to the class schedules for specific course fees.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
A minimum of 60 units to include: (1) the above course requirements, (2) the Associate in Arts degree general education requirements, and (3) electives as needed.

CAREER OPPORTUNITIES: Photographer for newspapers, magazines; commercial, industrial, television advertising; scientific research; portrait studio; custom photo lab technician; medical photographic technician.

PHOTOGRAPHY—155
TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY UNITS
PHOT 100 Introduction to Photography 3

Neither the California State University nor the University of California offer a degree in Photography. Various photography options however are available at some California State University campuses.

California State University - Fullerton
Photo-Communications may be selected as a concentration in the Communications major and Creative Photography is an available concentration in the Art major.

California State University - Long Beach
Photo-Journalism may be selected as an option in the Journalism major and Art Photography is an available option in the Art major. See the Fine Arts counselor for further information.

ASSOCIATE IN ARTS DEGREE:
Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all AA degree general education requirements for a total of at least 60 units.

Recommended Electives: PHOT 102, 122, 160, 200, 234, 240, JOUR 100, 101, and 130

CAREER OPPORTUNITIES: Photographer for newspapers; magazines; advertising; scientific research; graphic design; studio and photographic laboratories; teaching.

See Cerritos College Graduation Requirements.
See State University General Education List.

PHYSICAL EDUCATION
MEN—410
WOMEN—405
TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY UNITS
HED 110 Safety Education and First Aid 2
PE 100 Introduction to Physical Education 2

DIVISION REQUIREMENTS (10 UNITS)
Pre-professional Theory
PE 101 Sports Officiating (For Men's Activities I) 2
PE 102 Sports Officiating (For Men's Activities II) 2
PE 103 Sports Officiating (For Women's Activities I) 2
PE 104 Sports Officiating (For Women's Activities II) 2

Pre-professional Activities
PE 108 Professional Activities (For Men's Sports I) 3
PE 110 Professional Activities (For Men's Sports II) 3
PE 117 Professional Activities (For Women's Sports I) 3
PE 118 Professional Activities (For Women's Sports II) 3
LOWER DIVISION MAJOR REQUIREMENTS
FOR SPECIFIC TRANSFER INSTITUTIONS

California State University - Fullerton
KINESEIOLOGY MAJOR

Select six (6) units from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>PE 131</td>
<td>Walking for Fitness</td>
<td>1</td>
</tr>
<tr>
<td>PE 141</td>
<td>Fitness and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>PE 143</td>
<td>Personal Fitness Program</td>
<td>1</td>
</tr>
<tr>
<td>PE 132A</td>
<td>Aerobic Activities (Low Impact)</td>
<td>2</td>
</tr>
<tr>
<td>PE 132B</td>
<td>Aerobic Activities II</td>
<td>2</td>
</tr>
<tr>
<td>PE 155A</td>
<td>Bowling, Beginning</td>
<td>1</td>
</tr>
<tr>
<td>PE 155B</td>
<td>Bowling, Intermediate/Advance</td>
<td>1</td>
</tr>
<tr>
<td>PE 156A</td>
<td>Golf: Beginning</td>
<td>1</td>
</tr>
<tr>
<td>PE 156B</td>
<td>Golf: Advanced Stroke Development and Course Play</td>
<td>2</td>
</tr>
<tr>
<td>PE 156C</td>
<td>Golf: Advance Stroke Development and Course Play</td>
<td>2</td>
</tr>
</tbody>
</table>

Additional options: Athletic Training Program, Health Science
Bachelors of Science. See Cerritos College Physical Education Counselor for further information.

California State University - Long Beach
KINESEIOLOGY MAJOR

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>A&amp;P 200</td>
<td>Human Anatomy</td>
<td>5</td>
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<tr>
<td>A&amp;P 201</td>
<td>Human Physiology</td>
<td>5</td>
</tr>
<tr>
<td>PE 141</td>
<td>Fitness and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>PE 156A</td>
<td>Golf: Beginning</td>
<td>1</td>
</tr>
<tr>
<td>PE 156B</td>
<td>Golf: Intermediate/Advance</td>
<td>1</td>
</tr>
<tr>
<td>PE 159A</td>
<td>Tennis, Beginning</td>
<td>1</td>
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<tr>
<td>PE 172A</td>
<td>Volleyball, Beginning</td>
<td>1</td>
</tr>
<tr>
<td>PE 172B</td>
<td>Volleyball, Intermediate/Advanced</td>
<td>2</td>
</tr>
<tr>
<td>PE 179A</td>
<td>Soccer, Beginning</td>
<td>1</td>
</tr>
<tr>
<td>PE 179B</td>
<td>Soccer, Intermediate/Advanced</td>
<td>2</td>
</tr>
<tr>
<td>PSYC 101</td>
<td>General Introductory Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>


Complete above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all AA degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: Coach, fitness director YMCA and YWCA, outdoor education programs, instructor in private and public camps, rehabilitation centers, teacher/athletic trainer, sports medicine clinics, sports education, community, county, state recreation departments, credential teacher (elementary or secondary).

See Cerritos College Graduation Requirements.
See State University General Education List.

PHYSICAL THERAPIST ASSISTANT PROGRAM — 930
ASSOCIATE IN ARTS DEGREE

The Physical Therapist Assistant is a skilled technical health worker who performs physical therapy modalities and procedures under the direction of a Physical Therapist. This program is accredited by the Commission on Accreditation in Physical Therapy Education - American Physical Therapy Association. Successful completion of the Physical Therapist Assistant Program and Associate in Arts Degree qualifies one to take the State of California Examination for Physical Therapist Assistants.

LENGTH AND KIND OF PROGRAM

The program is four semesters in length. General education and Physical Therapist Assistant classes are scheduled on the college campus. Correlated clinical experiences begin the second semester and continue throughout the program. These experiences take place at selected hospitals and clinics in Los Angeles, Orange, Riverside, and San Bernardino Counties.

ADMISSION PROCEDURES AND REQUIREMENTS

1. Academic Requirements
   a. Acceptable scores on College Placement Tests for English and Mathematics and Reading clearance or deficiencies removed
   b. A&P 130 with a grade of “C” or higher
   c. All deficiencies in academic requirements must be removed. An overall Grade Point Average of 2.0 must be attained prior to admission to the Physical Therapist Assistant Program, and a grade of “C” or higher must be attained for each general education course.

2. Health
   a. Applicants must present evidence of physical fitness and ability to perform tasks required of a Physical Therapist Assistant. Lab, x-rays and immunization records meeting hospital standards must be completed after acceptance into the program.

SELECTION PROCEDURES

1. Academic Evaluation
   a. All required documents, including progress reports, transcripts, and work verification from Physical Therapist employer must be in the Health Occupations Division Office by April 15.
   b. No student whose college grade point average is below 2.0, or who has not cleared English, Math, or Reading deficiencies can be considered. These are considered minimum standards of academic preparation.
   c. Additional consideration will be given for work experience in the field of physical therapy or related areas, and for students who have completed additional medical or science related classes.

EXPENSES

Students are expected to purchase a student body card. Enrollment fees, project fees, uniforms, books, and supplies which will cost approximately $1000. Students are responsible for their own living accommodations, uniform laundry, and transportation to selected hospitals and clinics.

ATTENDANCE AND SCHOLARSHIP

All students are expected to observe the attendance requirements of the College and of the Physical Therapist Assistant Program. To remain in the Program, the student must maintain a “C” or higher in each required and general education course. Uniforms are required in all hospital lab classes (PTA 126L, 236L, 246L).
PROCEDURE FOR APPLICATION
(To be completed in order as listed)
1. Complete application to the program. This can be obtained in either the Health Occupations Division (562) 860-2451, Ext. 2550, or Counseling Office, Ext. 2231. The application must be returned by April 15.
2. Submit two official transcripts of all college work. Submit one copy to the Health Occupations Division and one copy to the Admissions and Records Office.
3. Submit assessment test scores for English, Reading, and Math with your application by April 15. If you have not taken these tests, proof of clearance by course work must appear on your college transcript. If you do not have course work or test scores to submit, apply to Cerritos College, obtain a student number, take the assessment test battery at the Assessment Center and record your test date on your program application by April 15.
4. It is advised that you make an appointment with a counselor to review test scores and college work. To make an appointment with a counselor, call (562) 860-2451, Ext. 2231.
5. As soon as all of the above material is received and reviewed, you will be notified of acceptance or non-acceptance after May 1. However, if you are completing admission requirements during the spring session, a “work-in-progress” report must be submitted to the Health Occupations Division at the end of the first four weeks of the course.
6. If you are accepted into the Physical Therapist Assistant Program, you must present a valid CPR card for Basic Life Support Course Level “C”, offered through the Heart Association or the American Red Cross prior to the first hospital experience (PTA 25). Card must be valid throughout the program.

ASSOCIATE IN ARTS DEGREE
A total of 71 units including the following requirements must be completed to qualify for the A.A. Degree:

A&P 130 Human Anatomy and Physiology 5
ENG 100 Freshman Composition 3
MA 161 Medical Terminology 3
PSYC 101 General Introductory Psychology 3
SPCH 100 Oral Communication 3
or SPCH 130 Fundamentals of Speaking 3
Natural Sciences and/or Health Education 6 units
Two additional courses from the Social and Behavior Sciences 6 units
Humanities and FineArts 6 units

FIRST YEAR
First Semester
PTA 110 Introduction to Physical Therapy 4
PTA 120 Kinesiology 4
Second Semester
PTA 125 Pathology 3
PTA 126L Clinical Practicum I 4
PTA 128 Physical Therapy Aspects of Growth, Development, and Aging 3
PTA 235 Neurology 3

SECOND YEAR
First Semester
PTA 230 Therapeutic Exercise 4
PTA 233 Prosthetics and Orthotics for Allied Health Professionals 2
PTA 236L Clinical Practicum II 4
Second Semester
PTA 240 Activities of Daily Living 2
PTA 245 Advanced Modalities 3
PTA 246L Clinical Affiliation 4

See Cerritos College Graduation Requirements.

PHYSICAL THERAPY—665
TRANSFER PROGRAM
California State University - Long Beach
CSULB offers a Master's of Physical Therapy degree only. Applicants must have a BS/BA degree in a related field in order to apply. Also, strong preparation in Biology, Chemistry, Physics, Anatomy and Physiology is recommended.

California State University - Northridge
BIOL 120 Introduction to Biological Science 4
CHEM 111 General Chemistry 5
CHEM 112 General Chemistry 5
MATH 101 Pre-Calculus Mathematics 4
PHYS 101 General Physics 4
PHYS 102 General Physics 4
SOC 101 Introductory Sociology Principles 3
A “C” or better is required in all classes with a 2.75 overall G.P.A.

California State University - Fresno
As of Fall 1997, CSU Fresno offers Physical Therapy as a Master's Program only. Applicants must have a BS/BA degree in a related field in order to apply.

Application for Admission to the departments of Physical Therapy must be made well in advance to assure entrance after the lower division requirements have been made.

CAREER OPPORTUNITIES: Physical therapists help persons with various diseases or injuries to overcome their disabilities. They are members of a rehabilitation team, which is directed by a physician. Although qualified physical therapists may treat many types of patients, some specialize in caring for children or for patients with arthritis, amputations or paralysis. Successful completion of a Bachelor or Master's Degree qualifies one to take the State of California examination to practice as a Physical Therapist.

See State University Colleges General Education List.
PHYSICS—635
TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION
FOR THE CALIFORNIA STATE UNIVERSITY
AND UNIVERSITY OF CALIFORNIA

<table>
<thead>
<tr>
<th>University of California - Dominguez Hills</th>
<th>California State University - Long Beach</th>
<th>California State University - Fullerton</th>
<th>California State University - Los Angeles</th>
<th>California State Polytechnic University - Pomona</th>
<th>University of California - Irvine</th>
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</thead>
<tbody>
<tr>
<td>PHYS 100 Elementary Physics</td>
<td>PHYS 100 Elementary Physics</td>
<td>CHEM 111 General Chemistry</td>
<td>CHEM 111 General Chemistry</td>
<td>CHEM 111 General Chemistry</td>
<td>CIS 170 Programming in Basic</td>
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<tr>
<td>PHYS 201 Engineering Physics</td>
<td>PHYS 202 Engineering Physics</td>
<td>CHEM 112 General Chemistry</td>
<td>CHEM 112 General Chemistry</td>
<td>CHEM 112 General Chemistry</td>
<td>or CIS 177 Programming in Pascal</td>
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<td>PHYS 202 Engineering Physics</td>
<td>PHYS 203 Engineering Physics</td>
<td>MATH 102 Analytic Geometry and Calculus I</td>
<td>MATH 102 Analytic Geometry and Calculus I</td>
<td>MATH 102 Analytic Geometry and Calculus I</td>
<td>MATH 102 Analytic Geometry and Calculus I</td>
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<td>PHYS 203 Engineering Physics</td>
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<td>MATH 103 Analytic Geometry and Calculus II</td>
<td>MATH 103 Analytic Geometry and Calculus II</td>
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<td>MATH 220 Analytic Geometry and Calculus III</td>
<td>MATH 220 Analytic Geometry and Calculus III</td>
<td>MATH 220 Analytic Geometry and Calculus III</td>
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<td>PMT 63L Specialty Plastics Lab</td>
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<td>PMT 68 Plastics Materials &amp; Processes</td>
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<td>PMT 100 Plastics I</td>
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<td>MT 120 Nondestructive Testing</td>
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<td>PMT 59 Injection Molding I</td>
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<td>PMT 63L Specialty Plastics Lab</td>
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<td>PMT 100 Plastics I</td>
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<td>MT 59 Injection Molding I</td>
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<td>PMT 63L Specialty Plastics Lab</td>
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<td>MT 65 Moldmaking</td>
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UNIT TOTALS

| University of California - Los Angeles | 5 |
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| 4 |

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete 60 units to include (1) The above common lower division requirements and (2) the Associate in Arts Degree general education requirements.

CAREER OPPORTUNITIES: After transfer to a four-year university and completion of the Bachelor's Degree Program, graduates qualify for graduate study and for a career as a professional Physicist, positions in an industrial laboratory and teaching of Physics and the Physical science.

See Cerritos College Graduation Requirements.
See State University General Education List.

PLASTICS MANUFACTURING TECHNOLOGY (PMT) SPECIALTY REQUIREMENTS
In order to obtain a Plastics Specialty, the student is encouraged to complete the required units for the Plastics Manufacturing Technology degree. The five to seven units for the specialty may come from the units completed toward the degree or from additional courses outlined below. Students with previous coursework may also be considered for certificates upon providing transcripts for review, and consent of the department.

Plastics Manufacturing Technology Specialty
PMT 63L Specialty Plastics Lab
PMT 68 Plastics Materials & Processes
PMT 100 Plastics I

Inspection and Testing Specialty
PMT 63L Specialty Plastics Lab
PMT 100 Plastics I
MT 120 Nondestructive Testing

Injection Molding Specialty
PMT 59 Injection Molding I
PMT 63L Specialty Plastics Lab
PMT 100 Plastics I

Moldmaking Specialty
PMT 59 Injection Molding I
PMT 63L Specialty Plastics Lab
MT 65 Moldmaking

Recommended Courses:
CHEM 111 General Chemistry
CHEM 112 General Chemistry

See counselor for specific concentration requirements.
Curricula, Requirements for Majors, Certificates and Transfer Programs

Fiberglass Specialty
PMT 61  Fiberglass I 2.5
PMT 63L Specialty Plastics Lab .5
PMT 67  Fiberglass II 2.5

Composites Specialty
PMT 61  Fiberglass I 2.5
PMT 67  Fiberglass II 2.5
PMT 70  Composites Technology 2.5

Fiberglass/Composite Repair Specialty
PMT 53-Composite Repair 3
PMT 61  Fiberglass I 2.5
PMT 67  Fiberglass II 2.5

Tooling Specialty
PMT 63L Specialty Plastics Lab .5
PMT 72  Tooling for Plastics 2.5
PMT 221 Modelmaking 2.5

PLASTICS/COMPOSITE TOOL DESIGN OPTION—874
PLASTIC/COMPOSITE TOOL DESIGN OPTION—874
PMT 65  Moldmaking I 3
PMT 72  Tooling for Plastics 2.5
DRAF 138 Fundamentals of Computer Aided Drafting 4
DRAF 258 Design and Production Technology with AutoCad 4
ENGR 123 Descriptive Geometry 3

TOTAL UNITS (INCLUDING CORE): 28

PLASTICS MANUFACTURING OPTION—875
PLASTICS MANUFACTURING OPTION—875
PMT 4  Plastics III 2.5
PMT 59 Injection Molding I 2.5
PMT 60 Extrusion 3
PMT 61 Fiberglass I 2.5
PMT 63L Specialty Plastics Lab .5
PMT 64 Plastics II 2.5
PMT 66 Hydraulics and Pneumatics 3
PMT 68 Plastics Materials and Processes 2.5
PMT 71 Plastics IV 2.5
PMT 72 Tooling for Plastics 2.5

TOTAL UNITS (INCLUDING CORE): 33

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete 60 units to include: (1) the above requirements for a specific Certificate of Achievement, (2) DRAF 16, (for Composite Manufacturing, Composite Inspection and Plastics Manufacturing Options Only), (3) the Associate of Arts Degree general education requirements, and (4) electives as needed.

RECOMMENDED ELECTIVES: PMT 98-99 (Directed Studies)

CAREER OPPORTUNITIES: Upon completion of the program, a student is prepared to work in areas of injection, compression and extrusion molding, mold laminating, plastic mold design and fabrication, as well as testing equipment set up, maintenance, and tooling.

See Cerritos College Graduation Requirements.

POLITICAL SCIENCE—770
TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION
FOR THE CALIFORNIA STATE UNIVERSITY UNITS
POL 101 American Political Institutions 3
POL 220 Comparative Government 3

RECOMMENDED ELECTIVES IN PREPARATION FOR UPPER DIVISION WORK: ANTH 100, ECON 201 & 202, GEOG 102, HIST 201 & 202, POL 210, PSYC 101, SOC 101.

University of California - Los Angeles
POL 201 Introduction to Political Science and American Government 3
or POL 101 American Political Institutions (3)
POL 220 Comparative Government 3
POL 210 International Relations 3

University of California - Irvine
CIS 101 Introduction to Business Computer Information Systems 3
or CIS 103 Computer Programming Logic (3)

136
Curricula, Requirements for Majors, Certificates and Transfer Programs

or CIS 280 Object-Oriented Programming in C++ (3)
MATH 102 Analytic Geometry and Calculus I 4
MATH 103 Analytic Geometry and Calculus II 4

TWO COURSES FROM:
POL 201 Introduction to Political Science and American Government 3
POL 220 Comparative Government 3
POL 101 American Political Institutions 3
POL 210 International Relations 3
POL 230 Contemporary Political Issues: Middle East 3

One additional course from the Political Science courses above or in another Social Science. (See a counselor for choices).

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all AA degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: Diversified positions in government at the local, state, and federal levels, military, Foreign Service, private business and industry. Upper division work leads into advanced degrees in law, journalism, public administration, international relations.

See Cerritos College Graduation Requirements.
See State University General Education List.

PRE-CHIROPRACTIC—650 TRANSFER PROGRAM
Admission to most chiropractic colleges is based primarily on the candidates’ Academic achievement in a college program. Each prospective candidate must have completed at least 75 semester units of course work, which could transfer to an accredited four-year college. All specific prerequisite courses must be completed with at least a “C” grade, and the overall grade-point-average must be at least 2.25 on a 4.0 scale.

MINIMUM COURSE REQUIREMENTS FOR ALL CHIROPRACTIC SCHOOLS MUST INCLUDE

THE FOLLOWING:

CHEM 111 General Chemistry 5
CHEM 112 General Chemistry 5
CHEM 211 Organic Chemistry 5
CHEM 212 Organic Chemistry 5
ENGL 100 Freshman Composition 3
ENGL 102 Freshman Composition & Literature 3
or SPCH 100 Fundamentals of Speech (3)
PHYS 101 General Physics 4
PHYS 102 General Physics 4
PSYC 101 General Introductory 3

ADDITIONAL REQUIREMENTS FOR SPECIFIC INSTITUTIONS:

Los Angeles College of Chiropractic
Recommended:
A&P 200 Human Anatomy 5
or A&P 201 Human Physiology (5)
Additional Social Sciences and Humanities courses 15

Cleveland Chiropractic College of Los Angeles
Social Sciences and Humanities courses 15
Any two (2) of the following:
For accurate programming and more detailed information concerning the above requirements and requirements for the Bachelor of Science Degree at the Chiropractic College consult the Cleveland Chiropractic College Pre-Chiropractic counselor.

CAREER OPPORTUNITIES: Doctor of Chiropractic; Primary health care provider, educated to diagnose, care for the human body in health and disease and to consult with, or refer to, other health care providers.

PRE-DENTAL—651 TRANSFER PROGRAM
Admission to most schools of Dentistry is based primarily on the candidates’ Academic achievement in a college program and performance in the Dental Admissions Test (DAT). Because most of the applicants being admitted to Dental schools possess a Bachelor’s degree, students are advised to integrate the dental school requirements into a program that will lead to a Bachelor’s Degree in a major of their choice.

MINIMUM COURSE REQUIREMENTS FOR MOST DENTAL SCHOOLS

<table>
<thead>
<tr>
<th>COURSE</th>
<th>UNITS</th>
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</thead>
<tbody>
<tr>
<td>BIOL 120 Introduction to Biological Science</td>
<td>4</td>
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<tr>
<td>BIOL 200 Principles of Biology</td>
<td>5</td>
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<tr>
<td>BIOL 201 Principles of Biology</td>
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<tr>
<td>CHEM 111 General Chemistry</td>
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<td>CHEM 211 Organic Chemistry</td>
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<td>CHEM 212 Organic Chemistry</td>
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<tr>
<td>ENGL 100 Freshman Composition</td>
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<tr>
<td>ENGL 102 Freshman Composition and Literature</td>
<td>3</td>
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<tr>
<td>PHYS 101 General Physics</td>
<td>4</td>
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<tr>
<td>PHYS 102 General Physics</td>
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</tr>
<tr>
<td>Psychology 101, General Introductory Psychology: required by many Dental Schools.</td>
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</tbody>
</table>

MATHEMATICS: The amount of mathematics beyond trigonometry needed will be determined by the upper division course of study the student elects to pursue.

ELECTIVES: Choose those courses from the area of general education outside the major which will represent a broad Liberal Arts education and which, if necessary, may apply toward the Bachelor’s degree requirement at the transfer school.

For information about specific Dental School requirements, students are encouraged to consult “Admission Requirements of American Requirements of American Dental Schools,” a catalog available from the American Association of Dental Schools, 1625 Massachusetts Ave., N.W. Washington, D.C. 20036 (Attn: Publications Assistant).

For accurate programming and more detailed information concerning the above requirements as well as the programs of other schools of dentistry, consult with the Cerritos College pre-dental counselor.

CAREER OPPORTUNITIES: The dental profession offers a variety of career options - General dentistry or one of eight recognized specialties: Dental Public Health, Endodontics, Oral Pathology, Oral Surgery, Orthodontics, Periodontics and Prosthodontics.
PRE-MEDICAL—652
TRANSFER PROGRAM

Admission to most schools of medicine is based primarily on the candidate's academic achievement in a college program and performance on the Medical College Admission Test. Although most medical schools at present require a minimum of three years of undergraduate college work, the majority of entering medical students has obtained the Bachelor's degree. Medical schools do not require you to major in a particular field. It is possible to major in any one of a large number of fields, integrating into the major program the course requirements for medical school.

COURSE REQUIREMENTS FOR MOST MEDICAL SCHOOLS

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<th>COURSE</th>
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<td>ENGL 102 Freshman Composition &amp; Literature</td>
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<td>PHYS 101 General Physics</td>
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<td>PHYS 102 General Physics</td>
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</tbody>
</table>

MATHEMATICS: Trends in medical education require the medical student to be adequately trained in mathematics; since calculus is needed in several medical school courses, introduction to calculus is strongly recommended and, some instances, required.

The upper division major will further define mathematical requirements.

ELECTIVES: Choose those courses from the area of general education outside the major which will represent a broad liberal arts education and which, if necessary, may apply toward the bachelor's degree requirement at the transfer school.

For information about specific medical school requirements are encouraged to consult "Admissions Requirements of American Medical Colleges," a catalog published yearly by the Association of American Medical Colleges, Attn: Membership and Subscriptions, One Dupont Circle, N.W., Washington, D.C. 20036. Price $5.00.

For accurate programming and more detailed information concerning the above requirements as well as the programs of other schools of medicine, consult the Cerritos College pre-medical counselor.

CAREER OPPORTUNITIES: General Practice, Group Practice, Military, Government Service, Foundation Medicine, Specialties: Internal Medicine, Pediatrics, Dermatology, Surgery, Obstetrics/Gynecology, Ophthalmology, Urology, Anesthesiology, Neurology, Psychiatry, Pathology, Radiology, Otolaryngology.

PRE-OPTOMETRY—648
TRANSFER PROGRAM

The following curriculum has been prepared to meet the requirements for admission to the Southern California College of Optometry. In general, Admission to schools of optometry offering the Doctor of Optometry requires the completion of a minimum of 90 semester units of professional course work as detailed below. No more than 70 units earned at a two-year college may apply to this minimum.

Because admission has become increasingly competitive many students will have completed the equivalent of a Bachelor's Degree in a major of their choice.

PRE-OPTOMETRY COURSE REQUIREMENTS

<table>
<thead>
<tr>
<th>COURSE</th>
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<tbody>
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<td>CHEM 111 General Chemistry</td>
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<td>CHEM 211 Organic Chemistry</td>
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<td>ENGL 100 Freshman Composition</td>
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<td>ENGL 102 Freshman Composition &amp; Literature</td>
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<tr>
<td>MATH 102 Analytic Geometry and Calculus I</td>
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<tr>
<td>MATH 112 Mathematical Statistics</td>
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<tr>
<td>MICR 200 Principles &amp; Applications of Microbiology</td>
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<tr>
<td>PHYS 101 General Physics</td>
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<tr>
<td>PHYS 102 General Physics</td>
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<tr>
<td>*PSYC 101 General Introductory Psychology</td>
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</tr>
<tr>
<td>ZOOL 120 Introduction to Animal Science</td>
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</tbody>
</table>

*Plus additional three (3) units of Psychology other than a statistical course.

Students desiring a Bachelor of Science degree from the Southern California College of Optometry must complete additional general education requirements in the areas of Fine Arts, Humanities, and Social Science.

For more detailed information concerning the above requirements and the programs of other schools of optometry, consult with the Cerritos College pre-optometry counselor.

CAREER OPPORTUNITIES: An Optometrist or Doctor of Optometry (O.D) is specifically trained and state licensed to examine, diagnose, and treat conditions of the vision system. They prescribe optometry treatment such as corrective lenses, contact lenses, or visual therapy.

PRE-PHARMACY—649
TRANSFER PROGRAM

Admissions to schools of pharmacy offering the Doctor of Pharmacy generally requires the completion of a minimum of 60 semester units of pre-pharmacy course work. Schools offering a Bachelor of Science in Pharmacy required a minimum of 30 semester units of pre-professional preparation. (See, for example, University of Pacific, Washington State University, University of Wyoming, University of Arizona).

COURSE REQUIREMENTS FOR MOST PHARMACY SCHOOLS

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<thead>
<tr>
<th>COURSE</th>
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<td>BIOL 201 Principles of Biology</td>
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<td>ENGL 102 Freshman Composition &amp; Literature</td>
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<tr>
<td>MATH 102 Analytic Geometry and Calculus I</td>
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</tbody>
</table>

ADDITIONAL DOCTORATE REQUIREMENTS FOR SPECIFIC SCHOOLS OF PHARMACY

University of Southern California
ECON 202 Principles | 3
Curricula, Requirements for Majors, Certificates and Transfer Programs

**HUMANITIES**  Two (2) courses 3-3
PSYC 101  General Introductory Psychology 3
SOCIAL / BEHAVIORAL

**SCIENCE**  Two (2) additional courses 3-3
SPCH 100  Fundamentals of Oral Communication 3

University of California - San Francisco
CHEM 205  Quantitative Analysis 4
MATH 103  Analytic Geometry and Calculus II 4
PHYS 101  General Physics 4
PHYS 102  General Physics 4

Plus, Humanities, Social and Behavioral Science five (5) courses.

University of Pacific
ECON 202  Principles 3
PHYS 100  Elementary Physics 4
or one (1) year of high school physics (with Lab)
PSYC 101  General Introductory Psychology 3
SPCH 130  Fundamentals of Speaking 3

For additional general education requirements, consult with the Cerritos College pre-pharmacy counselor.

Pharmacy career information, including accredited colleges of pharmacy, is available from: American Association of Colleges of Pharmacy, 4630 Montgomery Avenue, Suite 201, Bethesda, Maryland, 20014.

CAREER OPPORTUNITIES: Operate prescription pharmacies, dispense drugs and medicine prescriptions; pharmaceutical sales; teach in colleges of pharmacy; supervise manufacture of pharmaceuticals; research; development of new medicines; consultants to medical teams.

**PRE-VETERINARY—653**

**TRANSFER PROGRAM**
The following pre-veterinary curriculum has been designed to meet the pre-veterinary requirements as published by the School of Veterinary Medicine at the University of California - Davis. Students are asked to complete a minimum of 72 semester units of college work including the required courses listed below before they apply to the School of Veterinary Medicine. Because enrollment is limited, however, most successful applicants have completed four or more years of college, a grade-point-average of B+, a strong science background, a good deal of experience with animals, and exceptional motivation toward a career in veterinary medicine.

**PRE-VETERINARY COURSE REQUIREMENTS**

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BIOL 200  Principles of Biology</td>
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<tr>
<td>BIOL 201  Principles of Biology</td>
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<td>CHEM 111  General Chemistry</td>
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<td>CHEM 112  General Chemistry</td>
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<tr>
<td>CHEM 211  Organic Chemistry</td>
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<tr>
<td>CHEM 212  Organic Chemistry</td>
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<tr>
<td>ENGL 100  Freshman Composition</td>
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<tr>
<td>ENGL 102  Freshman Composition &amp; Literature</td>
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</tr>
<tr>
<td>MATH 112  Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 101  General Physics</td>
<td>4</td>
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<tr>
<td>PHYS 102  General Physics</td>
<td>4</td>
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<tr>
<td>ZOOL 120 Introduction to Animal Science</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 120 Principles of Biology</td>
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</tbody>
</table>

Consult with Cerritos College pre-veterinary counselor regarding the breadth courses, which may apply toward the Bachelor’s Degree at the Transfer School.

CAREER OPPORTUNITIES: Veterinarians diagnose, treat, and control diseases and injuries among animals. They treat animals in hospitals and clinics or on farms and ranches. Practice specialties include research, teaching, animal breeding, and Federal and State Animal Health Programs.

**PSYCHOLOGY—750**

**TRANSFER PROGRAM**

**COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND THE UNIVERSITY OF CALIFORNIA**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>PSYC 101  General Introductory Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 210  Elementary Statistics</td>
<td>4</td>
</tr>
<tr>
<td>or MATH 112 Elementary Statistics</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 220  Research Methods</td>
<td>4</td>
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</tbody>
</table>

Recommended Electives: SOC 101, ANTH 100, and PHIL 202

**ADDITIONAL LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS**

California State University - Fullerton
A maximum of nine (9) lower division units of psychology courses may be applied toward psychology major requirements. If PSYC 210 is used for the major, another transferable mathematics course must be taken to satisfy general education requirements. MATH 112, therefore is suggested completing.

California State University - Long Beach
PSYC 241  Introduction to Psychobiology 3

California State University - Los Angeles
PSYC 241  Introduction to Psychobiology 3

University of California - Los Angeles
ANTH 115  Human Evolution and Variation 3
A&P 120  Introduction to Human Anatomy and Physiology
or BIOL 120  Introduction to Biological Science (4)
or BIOL 200 Principles of Biology (5)
or CHEM 100 Introductory Chemistry (4)
or CHEM 110 Elementary Chemistry (4)
or CHEM 111 General Chemistry (5)
MATH 102  Analytic Geometry and Calculus I
or MATH 115 Finite Mathematics (4)
or CIS 280 Object-Oriented Programming in C++ (3)
or PHIL 100 Introduction to Philosophy (3)
or PHIL 102 Introduction to Ethics (3)
or PHIL 106 Introduction to Logic (3)
or PHIL 202 Critical Thinking and Argumentative Writing (3)
PHYS 100  Elementary Physics 4
or PHYS 101 General Physics (4)
or PHYS 201 Engineering Physics (4)

University of California - Irvine
PSYC 150  Personal and Social Adjustment 3
or PSYC 251 Developmental Psychology (3)
PSYC 241  Introduction to Psychobiology 3
PSYC 261  Social Psychology 3
or PSYC 271 Abnormal Psychology (3)
Recommended: BIOL 120

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ASSOCIATE IN ARTS DEGREE:

Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all AA degree general education requirements for a total of at least 60 units. CAREER OPPORTUNITIES: Graduate work is extremely important in Psychology. Those holding M.A., or Ph.D. in Psychology may find employment in teaching, private practice, research, health, and welfare programs. Persons without graduate degrees will find employment opportunities limited. See a counselor for further information.

See Cerritos College Graduation Requirements.

See California State University General Education List.

RECREATION — 425
TRANSFER PROGRAM
LOWER DIVISION MAJOR REQUIREMENTS
FOR SPECIFIC TRANSFER INSTITUTIONS

California State University - Long Beach:
PSYC 101 General Introduction Psychology 3
SOC 1 Introduction Sociology Principles 3
JOUR 110 Principles of Public Relations 3
An appreciation course in Art, Music, or Theatre 3
A creative arts activity course (e.g. art, photo, industrial arts)
or a performing arts activity course (e.g. dance, choir, drama) 3
PE Activity 3 (CSULB will apply only 3 units of PE activity toward Recreation major requirements: Additional units of PE activity may apply as general electives toward the Bachelor's Degree.)

California State University - Los Angeles:
CSULA offers an interdisciplinary Bachelor of Science Degree program in RECREATION and LEISURE STUDIES. Consult with a Cerritos Recreation Counselor regarding lower division preparation.

California State University - Fullerton:
Consult with a Cerritos Recreation Counselor or contact directly the CSUF Department of Health Education, Physical Education and Recreation.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
A minimum of 60 units to include: (1) A minimum of 18 units of Health, Physical Education and Recreation courses including above requirements, (2) AA Degree general education requirements, and (3) electives as needed.

CAREER OPPORTUNITIES: Positions of leadership, supervision, administration in public, private, or voluntary youth and adult recreation or leisure services; in corrective or rehabilitative institutions; in industrial and medical recreation; armed forces recreation.

See Cerritos College Graduation Requirements.

SOCIAL WELFARE — 761
TRANSFER PROGRAM
LOWER DIVISION PrePARATION FOR SPECIFIC TRANSFER INSTITUTIONS

California State University - Long Beach
CSU Long Beach has no program in Social Work major program.

CSU Dominguez Hills
CSU Dominguez Hills has no program in Social Work. It is recommended that students who plan to seek employment in social work or social welfare prepare themselves in the following coursework: Anatomy & Physiology, Anthropology, Human Services, Psychology, Sociology Research Methods and Statistics. Contact a Cerritos College Counselor for further information.

California State University - Fullerton:
CSU Fullerton has no program in Social Work or Social Welfare. It is recommended that students who plan to seek employment in social work or prepare themselves in the following coursework: Political Science, Economics, Anthropology, Human Services, Psychology, Sociology, Research Methods and Statistics. Contact a Cerritos College counselor for further information.

California State University - Long Beach:
A&P 120 Introduction to Human Anatomy & Physiology 4
ANTH 100 Cultural Anthropology 3
PSYC 101 General Introductory Psychology 3
PSYC 210 Elementary Statistics 4
or MATH 112 Elementary Statistics (4)
PSYC 271 Abnormal Psychology 3
SOC 101 Introductory Sociology Principles 3

This class is strongly recommended.

Additional coursework that will be considered advantageous:
Any Ethnic Studies, Women Studies, Gerontology, Computer literacy, and Spanish classes.

California State University - Los Angeles:
CSU Los Angeles has a Social Work program.

PSYC 101 General Introductory Psychology 3
or SOC 101 Introductory Sociology Principles (3)
PSYC 210 Elementary Statistics 4
or MATH 112 Elementary Statistics (4)

CAREER OPPORTUNITIES: Social Workers are employed in varied settings, including the major societal institutions; Health and mental health care, child welfare, family services, government, education, justice, aging services, recreation, labor and industry and religion. They work in many job classifications: direct service, community organization supervision, consultation, management and administration, education and training, policy analysis and research.

See State University General Education List.

SOCIOLOGY — 760
TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND UNIVERSITY OF CALIFORNIA

PSYC 101 General Introduction Psychology 3
or SOC 101 General Sociology Principles (3)
PSYC 210 Elementary Statistics 4
or MATH 112 Math Statistics (4)
SOC 101 Introductory Sociology 3

LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University - Long Beach
ANTH 100 Cultural Anthropology 3
SOC 201 Social Problems 3
Recommended Electives

ANTH 100 Cultural Anthropology 3
PSYC 101 General Introductory Psychology 3
SOC 215 Sociology of Cultural Diversity: Challenge and Change 3
SOC 120 Introduction to Human Sexuality 3
SOC 110 Marriage and the Family 3
SOC 210 American Minority Relations 3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete the above common division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all AA degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: Employment opportunities for those holding the BA will be somewhat limited, although placement in Departments of Public Welfare and Probation and Parole are occasionally available. Persons with graduate degrees - M.A., Ph.D. - will qualify for teaching and research positions.

See Cerritos College Graduation Requirements.
See State University General Education List.

SPANISH— 554
TRANSFER PROGRAM
COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY AND UNIVERSITY OF CALIFORNIA

<table>
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<td>SPAN 201</td>
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<td>SPAN 202</td>
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ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University - Long Beach
One year of a second foreign language at the college level, or equivalent.

California State University - Fullerton and Los Angeles

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<th>Course</th>
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<tr>
<td>SPAN 214</td>
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<td>SPAN 281</td>
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<td>SPAN 282</td>
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University of California - Riverside

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<td>SPAN 281</td>
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<td>SPAN 282</td>
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</table>

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
(1) Meet the above requirements as listed for a state university,
(2) complete the AA Degree general education requirements, and (3) take electives to achieve a minimum of 60 units.

CAREER OPPORTUNITIES: Overseas personnel in American corporations, airline hostess, travel agency personnel, government positions abroad, teaching, librarian, interpreter, and translator.

See Cerritos College Graduation Requirements.
See State University General Education List.

SPEECH— 540
TRANSFER PROGRAM
LOWER DIVISION MAJOR REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University - Long Beach

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<td>SPCH 120</td>
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<td>SPCH 130</td>
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<td>SPCH 132</td>
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<td>SPCH 235</td>
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California State University - Fullerton

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For Secondary school teaching emphasis ADD:

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California State University - Los Angeles

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<td>SPCH 235</td>
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RECOMMENDED ELECTIVES: Economics, Sociology, and Political Science.

NOTE: It is strongly recommended that students with high school forensic experience take Speech 235 during their freshman year.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all AA degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: Public relations, Sales, Teaching, Law, Politics, Administration, Communications, Consulting, and Broadcasting.

See Cerritos College Graduation Requirements.
See State University General Education List.

SPEECH-LANGUAGE PATHOLOGY AIDE
(Pending Chancellor’s Office Approval)

CERTIFICATE OF ACHIEVEMENT
SPEECH-LANGUAGE PATHOLOGY AIDE

A Certificate of Achievement shall be awarded to the student who completes with a grade of “C” or better the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tr>
<td>CD 138</td>
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</table>
SPEECH-LANGUAGE PATHOLOGY ASSISTANT—940

(Pending Chancellor’s Office Approval)

The Speech-Language Pathology Assistant curriculum prepares graduates to work under the supervision of a licensed Speech-Language Pathologist, who evaluates, diagnoses, and treats individuals with various communication disorders. The program provides a concentration of speech-language classes, related courses, and supervised field experiences that will prepare students to assist speech-language pathologists in treating disorders related to articulation and phonology, anomalies and hearing. In addition, students will be trained in the use of alternative and augmentative communication.

Courses provide instruction in methods of screening for speech, language, and hearing disorders and in following written protocols designed to remediate individual communication problems. Students are placed in supervised field experiences in school, hospital, and rehabilitation settings to work with different types and ages of clients.

Graduates will be eligible to apply for licensure with the California Speech-Language Pathology and Audiology Board. Employment opportunities exist in health and education settings where the Speech-Language Pathology Assistant must be supervised by a licensed Speech-Language Pathologist.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:
A minimum of 60 degree applicable units including the following requirements must be completed to qualify for the A.A. Degree.

REQUIRED COURSES:

UNITS

FIRST YEAR

First Semester
CD 110 Child Development 3
CDEC 113 The Child, Family, and Community 3
EDT 1 Windows for Educators 1
EDT 7 Word for Educators I 1
SLP 100 Introduction to Speech-Language Pathology 3
SLP 110 Normal Communication, Disorders & Differences 5
15

Second Semester
CD 137 Positive Child Guidance 1.5
CD 138 Observation & Assessment of Childhood Behavior 1.5
CDSE 50 Survey of Special Education 3
SPCH 271 Voice and Articulation 3
SLP 120L Phonetics Lab 1
SLP 125 Childhood Disorders and Treatment 5
15

SECOND YEAR

First Semester
SL 50 Beginning Sign Language 2
SPCH 229 Speech & Language Development in Children 3
SLP 230 Adaptive Communication Technology 1.5
SLP 235 Adult Disorders and Treatment 5
11.5

Second Semester
SL 51 Intermediate Sign Language 2
SLP 240 Childhood Field Experience 2.5
SLP 245 Adult Field Experience 2.5
7.0

Total Units 48.5

Recommended Elective: A&P 120
See Cerritos College Graduation Requirements

TEACHING CREDENTIAL PREPARATION

The State of California provides for a two-step, five-year program leading to the Basic Teaching Credential. A student may complete the requirements for a Preliminary Credential within a four-year college program and be employed at that point, providing all requirements have been met (except the fifth year). Within five years, the student must complete an additional year of study. At that point, a Clear Teaching Credential is granted. The first two years of this process may be completed at Cerritos College.

SINGLE SUBJECT INSTRUCTION CREDENTIAL
(Primarily for Secondary Schools)

A teacher authorized for Single Subject instruction may be assigned to teach at any grade level pre-school through classes for adults. In practice, most teachers with Single-Subject authorization teach in junior or senior high schools, grades 7-12.

A candidate lacking this major background may validate competency by passing an examination in a specified subject matter category. No minor is required.

MULTIPLE-SUBJECT INSTRUCTION CREDENTIAL
(Liberal Studies/Elementary School Teaching)

A teacher authorized for Multiple-Subject instruction may be assigned to teach in any self-contained classroom pre-school through classes for adults. In practice, most teachers with Multiple-Subject authorization teach in Early Childhood and Elementary Education, pre-school through grade six.

Multiple-Subjects majors are usually referred to as “diversified” or “liberal studies” degrees. However, colleges and universities may use different names for programs approved as a waiver for the Multiple-Subject examination. Completion of a degree program which is approved by the Commission is referred to as a waiver degree program.

Completion of the courses recommended below will partially satisfy requirements for the Liberal Studies elementary school teaching option offered at the indicated CSU’s. The courses are part of a curriculum that can be started at a community college and completed at the CSU. The entire curriculum is designed for individuals who seek the preprofessional subject matter preparation for elementary school teaching consistent with the standards established by the California Commission on Teacher Credentialing. Students who wish to choose an academic major other than Liberal Studies in order to
prepare for elementary school teaching should schedule an appointment with their counselor.

Students who wish to choose a liberal arts major in order to benefit from a broad interdisciplinary liberal arts education and do not wish to pursue elementary school teaching should see a Cerritos College counselor for advisement. Requirements may vary from those listed below.

An Associate In Arts Degree in liberal studies is not available at Cerritos College. Students may however, declare General Studies as their major.

California State University, Dominguez Hills:

English 100
Speech 100, 120, 130, or 132
English 103, Philosophy 106, 202, or Speech 235
Biology 120
Earth Science 110 or Geology 101, 201, or 207
or Physics 101 or 102
Astronomy 101 and 101L, or Chemistry 100
Math 110A and 110B
English 222
Language other than English (at least 6 units of the same language)
Art 101, 102, 103, or 106
Music 100 or 105
History 101, 201, 202, 220, or 221
Political Science 101 or 201
Geography 105
History 240 or 241
Child Development 110 or Psychology 251
CIS 101
Any course from Area E*
Recommended elective: English 102

California State University, Long Beach:

The following courses meet lower division requirements for the tradition teacher preparation program consisting of a BA and year-long credential program. Teacher TRAC requirements differ from those below. Please contact the TRAC office for the appropriate transfer courses.

English 100
Speech 100, 120, 130, or 132
English 103, Philosophy 106, 202, or Speech 235
Biology 120
Earth Science 110
Geology 101
Math 110A and 110B
Music 105
Theatre 101
English 102, 230A, 230B, 246A, 246B, 248A, or 248B
English 222 or Speech 145
Philosophy 100, 102, or 200
History 101 or 201
Political Science 101 or 201
Anthropology 100
Geography 105
History 120
Psychology 101
Child Development 110

Note: Foreign Language is not required for the major. At least 6 college-level units of language other than English however are required for a multiple subject teaching credential. This requirement can also be satisfied by completing three years of the same foreign language in high school with a grade of “B” or better. Additional units of foreign language may be needed for a bilingual credential.

California State University, Los Angeles:

English 100
Speech 130
Philosophy 202, or Speech 235
Astronomy 101 and 101L, or Geology 101
Earth Science 110
Any biological lab science from Area 2 B* (Zoology 120 recommended by CSU, Los Angeles)
Math 110A, 110B and Math 100
English 102 and English 103
Art 101, 102, Music 100, 105, or Theatre 101
History 201
History 240
Political Science 102 or 105
Psychology 101
Geography 102
Foreign Language (one semester minimum)
One course from ANTH 100 or History 110
Physical Education 141

California State University, Fullerton:

Speech 100, 120, 130, or 132
English 100
English 103, Philosophy 106, 202, or Speech 235
Any Chemistry or Physics course from Area B.1*
Astronomy 101 (or 101 and 101L), Earth Science 101 (or 101 and 101L), 104, 106, 110, Geography 101,
Geology 110, 110, 201, 204, or 207
Any Biological Science course from Area B.2* (Lab required for Physical Science or Biological Science)
Any Mathematics course from Area B.3* (Math 110A and 110B recommended)
Any Fine Arts course from Area C.1* (Music 105 or knowledge of music theory recommended for Liberal Studies majors)
English 230A, 230B, 246A, 246B, or 248B
English 222+
English 248A+ or Philosophy 100
(+Liberal Studies students should include either 248A or 248B.
Students who may want to teach English at the Junior High level should satisfy at least one or these literature requirements at the upper division level at CSUF.)
Foreign Language (1 semester minimum; Spanish 103A and 103B preferred)
History 101, 201, 202, 220, or 221
History 245
Political Science 101 or 201
Geography 102 or 105
One course from Area D.3* (e.g. Anthropology 100, Psychology 101,
or Sociology 101)
CD 110
One course from Area E*

Note: Students planning to become elementary teachers are welcome to call the Center for Careers in Teaching at CSUF for additional information or clarification about program requirements (714-278-7130).
OTHER CREDENTIALS
Specialist and Service Credentials: Specialist Credentials such as for Special Education, Early Childhood Education, or Reading and Service Credentials such as for Counseling and Administration require graduate study.

Designated Subject Credential: Designated Subject Credentials are based on experience in the trade or technical area to be taught.

The Counseling Staff can help you locate approved programs and help you design your own program at Cerritos to make transfer as efficient as possible.

THEATRE ARTS—130
ASSOCIATE IN ARTS DEGREE PROGRAM

The following Theatre Program of Study has been designed to prepare students for an AA Degree. Students interested in preparing for a Bachelor’s Degree at a four-year college are referred to the Theatre Arts Transfer Program (135).

ACTING OR TECHNICAL EMPHASIS 32 UNITS MINIMUM

<table>
<thead>
<tr>
<th>COURSE</th>
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<tbody>
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<td>TH 110</td>
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<td>TH 130C</td>
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<tr>
<td>TH 131A</td>
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<td>TH 131B</td>
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CHOOSE TWO:
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<td>TH 221</td>
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<td>TH 222</td>
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PLUS SIX (6) UNITS FROM AT LEAST TWO OF THE FOLLOWING:

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<td>TH 115</td>
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<td>TH 120</td>
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<td>TH 123</td>
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<td>TH 136</td>
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<td>TH 226</td>
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<tr>
<td>MUS 146</td>
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MEDIA EMPHASIS (25 UNITS REQUIRED)

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<td>TH 155</td>
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<td>TH 156</td>
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<td>TH 159</td>
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</tr>
<tr>
<td>TH 258</td>
<td>3</td>
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<tr>
<td>MUS 146</td>
<td>2</td>
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ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

A minimum of 60 units must be completed to include: (1) one of the options above, (2) AA Degree general education requirements, and (3) electives as needed.

CAREER OPPORTUNITIES: Acting, announcing, directing, scriptwriting, reporting, construction and painting technician, costume construction technician, lighting and design technician, media/sound recording technician, theatre and media production assistant, playwriting, theatre management and box office worker, stage and media publicity technician.

See Cerritos College Graduation Requirements.

THEATRE ARTS—135
TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR CALIFORNIA STATE UNIVERSITY AND UNIVERSITY OF CALIFORNIA

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<td>TH 120</td>
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ADDITIONAL LOWER DIVISION REQUIREMENTS FOR SPECIFIC TRANSFER INSTITUTIONS

California State University - Dominguez Hills

<table>
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<th>COURSE</th>
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California State University - Fullerton

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<td>TH 111</td>
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<td>TH 115</td>
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<tr>
<td>TH 123</td>
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<td>TH 212</td>
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California State University - Los Angeles

<table>
<thead>
<tr>
<th>COURSE</th>
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<tr>
<td>TH 122</td>
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</table>

California State University - Long Beach

<table>
<thead>
<tr>
<th>COURSE</th>
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<tbody>
<tr>
<td>TH 123</td>
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</tr>
<tr>
<td>TH 221</td>
<td>3</td>
</tr>
<tr>
<td>TH 222</td>
<td>3</td>
</tr>
</tbody>
</table>
University of California - Irvine

Drama Major:

TH 111 Intermediate Acting to Characterization 3
TH 221 Costuming for the Stage 3
TH 222 Stage Lighting 3
TH 226 Introduction to Scenic Design 2

Plus, two (2) courses in Dance (Ballet, Jazz, Modern, Tap).

University of California - Los Angeles

Select courses from recommended preparation:

TH 114 Voice for Acting 2
TH 115 Stage Movement and Combat 3
TH 131A Theatre Production I 1
TH 221 Costuming for the Stage 3
TH 222 Stage Lighting 3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete the above common lower division requirements plus other courses selected in consultation with a counselor to provide for the 18 unit minimum and all AA degree general education requirements for a total of at least 60 units.

CAREER OPPORTUNITIES: Preparation for the Theatrical profession as performer, technician, costuming, lighting, make-up, scenery director, and technical director in such areas as the professional theatre, community theatre, recreational theatre, children's theatre, and educational theatre.

See Cerritos College Graduation Requirements.
See State University General Education List.

WELDING—861

CERTIFICATE OF ACHIEVEMENT

Welding Technology Certificate of Achievement are available under three options: Arc Welding, Gas Tungsten Arc Welding, and Pipe Welding. The basic core courses must be taken for all three certificate options.

WELDING BASIC CORE COURSES

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WELD 50</td>
<td>Blue Print Reading for the Welding Trades</td>
<td>3</td>
</tr>
<tr>
<td>WELD 100</td>
<td>Fundamentals of Welding</td>
<td>2</td>
</tr>
<tr>
<td>or WELD 110</td>
<td>Oxy-Acetylene Welding</td>
<td>(4)</td>
</tr>
<tr>
<td>WELD 120</td>
<td>Beginning Arc Welding</td>
<td>4</td>
</tr>
<tr>
<td>WELD 170</td>
<td>Structural Fabrication</td>
<td>2</td>
</tr>
<tr>
<td>MATH 40</td>
<td>Survey of Mathematics</td>
<td>4</td>
</tr>
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</table>

15 (17)

ARC WELDING OPTION—857

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
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<tbody>
<tr>
<td>WELD 200</td>
<td>Intermediate Arc Welding</td>
<td>4</td>
</tr>
<tr>
<td>WELD 210L</td>
<td>Advanced Arc Welding</td>
<td>2</td>
</tr>
<tr>
<td>WELD 220</td>
<td>Certification and Licensing for Welders</td>
<td>2</td>
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</table>

23 (25)

INERT GAS WELDING OPTION—858

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
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<tbody>
<tr>
<td>WELD 130</td>
<td>Gas Tungsten Arc Welding Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>WELD 240</td>
<td>Advanced Gas Tungsten Arc Welding Lab (2 labs required)</td>
<td>4</td>
</tr>
<tr>
<td>WELD 250L</td>
<td>Gas Tungsten Arc Welding Specialty Lab (2 labs required)</td>
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27 (29)

PIPE WELDING OPTION—859

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
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<tbody>
<tr>
<td>WELD 52</td>
<td>Pipe Welding Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>WELD 53</td>
<td>Pipe Layout</td>
<td>2</td>
</tr>
<tr>
<td>WELD 54L</td>
<td>Advanced Pipe Welding</td>
<td>2</td>
</tr>
<tr>
<td>WELD 130</td>
<td>Gas Tungsten Arc Welding Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>WELD 200</td>
<td>Intermediate Arc Welding</td>
<td>4</td>
</tr>
<tr>
<td>WELD 210L</td>
<td>Advanced Arc Welding</td>
<td>2</td>
</tr>
<tr>
<td>WELD 240</td>
<td>Advanced Gas Tungsten Arc Welding Lab</td>
<td>2</td>
</tr>
</tbody>
</table>

35 (37)

The MATH 40 requirement for a Certificate of Achievement may be met with a satisfactory score on the Math Placement Test. WELD 51L, Advanced Arc Welding Specialty Lab, may be included to a maximum of 2 units to meet option requirements.

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

The student must complete one of the certificate options and electives and general education to achieve a minimum of 60 units.

CAREER OPPORTUNITIES: Welder, welding inspector, welding technician or fitter, pipe fitter, maintenance mechanic. Welders are employed in aircraft industries, shipyards, job shops, pipeline construction, and building construction.

See Cerritos College Graduation Requirements.

WILDLIFE MANAGEMENT—675

TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION FOR THE CALIFORNIA STATE UNIVERSITY

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BIOL 200</td>
<td>Principles of Biology</td>
<td>5</td>
</tr>
<tr>
<td>BIOL 201</td>
<td>Principles of Biology</td>
<td>5</td>
</tr>
<tr>
<td>CIS 178</td>
<td>Digital Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>MATH 116</td>
<td>Calculus for Managerial, Biological and Social Sciences</td>
<td>4</td>
</tr>
</tbody>
</table>

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) the above required courses and (2) the Associate in Arts Degree general education requirements.

CAREER OPPORTUNITIES: After transfer to a 4 year college or university and completion of the Bachelor’s Degree program, graduates qualify for graduate study and for employment with both public and private agencies in wildlife management and/or fisheries biology.

See Cerritos College Graduation Requirements.
See State University General Education List.
WOODWORKING MANUFACTURING
TECHNOLOGIES—893

CERTIFICATE OF ACHIEVEMENT PROGRAM

BASIC CORE COURSE

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>WMT 101</td>
<td>Introduction to Woodworking</td>
<td>2</td>
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<tr>
<td>WMT 102</td>
<td>Machine Wood Technology</td>
<td>4</td>
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<tr>
<td>WMT 103</td>
<td>Machine Wood Technology II</td>
<td>4</td>
</tr>
<tr>
<td>WMT 107</td>
<td>Wood Finishing</td>
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</tr>
<tr>
<td>WMT 151</td>
<td>Introduction to Cabinetmaking</td>
<td>4</td>
</tr>
<tr>
<td>WMT 181</td>
<td>Introduction to Computer Operations for</td>
<td></td>
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<tr>
<td></td>
<td>Cabinetmaking and Design</td>
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<tr>
<td>TM 50</td>
<td>Technical Mathematics</td>
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<tr>
<td>ART 20</td>
<td>Two-dimensional Design</td>
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AND TWELVE (12) UNITS SELECTED FROM THE FOLLOWING COURSES:

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<th>Title</th>
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<td>WMT 132</td>
<td>Chair Design and Construction</td>
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<td>WMT 134</td>
<td>Frame Making</td>
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<td>WMT 148</td>
<td>Furniture Making and Manufacturing</td>
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<td>WMT 153</td>
<td>32MM System of Cabinetmaking</td>
<td>4</td>
</tr>
<tr>
<td>WMT 171</td>
<td>Introduction to Boat Building</td>
<td>3</td>
</tr>
<tr>
<td>WMT 202</td>
<td>Advanced Machine Wood Technology</td>
<td>4</td>
</tr>
<tr>
<td>WMT 211</td>
<td>The Workbench Class</td>
<td>4</td>
</tr>
<tr>
<td>WMT 212</td>
<td>Router and Router Tables</td>
<td>4</td>
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</table>
| WMT 248  | Production Furniture Making and Manufacturing | 4 |}
| WMT 249L | Furniture Manufacturing Specialty          | 2.5   |
| WMT 251  | Advanced Cabinetmaking                      | 2     |
| WMT 253  | Advanced 32MM System of Cabinetmaking       | 3     |
| WMT 268  | Production Cabinetmaking and Manufacturing  | 5     |
| WMT 281  | Advanced Computer Operations for            |       |
|          | Cabinetmaking and Design                    | 2.5   |

TOTAL CERTIFICATE UNITS: 37.5

ASSOCIATE IN ARTS DEGREE REQUIREMENTS

Complete 60 units to include (1) the above required courses, (2) BA 41, (3) the Associate in Art Degree requirements, and (4) electives as needed.

RECOMMENDED ELECTIVES: WMT 211, WMT 212, WMT 268

CAREER OPPORTUNITIES: Upon completion of the program, a student is prepared to design, construct, and produce cabinet and furniture products to industry standards.

See Cerritos College Graduation Requirements.

ZOOLOGY—695

TRANSFER PROGRAM

COMMON LOWER DIVISION PREPARATION

FOR THE CALIFORNIA STATE UNIVERSITY

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<th>Title</th>
<th>Units</th>
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<td>MATH 116</td>
<td>Calculus for Managerial, Biological and Social Sciences</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 200</td>
<td>Principles of Biology</td>
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<td>BIOL 201</td>
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<td>CHEM 111</td>
<td>General Chemistry</td>
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<td>CHEM 112</td>
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<td>PHYS 101</td>
<td>General Physics</td>
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<td>PHYS 102</td>
<td>General Physics</td>
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ADDITIONAL LOWER DIVISION MAJOR REQUIREMENTS

For Specific Transfer Institutions

California State University - Long Beach:
- MICR 200 Introduction to Microbiology 5
- or GEOL 101 The Earth Environment 4

California State Polytechnic University - Pomona:
- MICR 200 Introductory Microbiology 5
- MATH 112 Mathematical Statistics 3

ASSOCIATE IN ARTS DEGREE REQUIREMENTS:

Complete 60 units to include (1) the above required courses, (2) electives as needed, and (3) the Associate in Arts Degree requirements.

CAREER OPPORTUNITIES: Bachelor's Degree programs are designed to qualify the student for graduate study, entrance to medical, dental or veterinary schools, teaching through secondary schools, employment in Federal and State Civil Service, research laboratories of industrial, pharmaceutical firms, or natural museum work.

See Cerritos College Graduation Requirements.

See State University General Education List
ANNOUNCEMENT OF COURSES

This section of the catalog provides the course description for all courses approved by the Cerritos College Curriculum Committee.

All courses, unless otherwise indicated, apply for credit toward an A.A. Degree in accordance with California Administrative Code, Title V, Section 55805.5.

Courses that do not meet the A.A. Degree requirements are indicated with a statement “(Not degree applicable)” beside the course title.

Students are advised to see a counselor for clarification if they have any questions regarding the appropriateness of a course to meet their educational goal.

Please check with your counselor and the department for new developments in curriculum that have not been included in the catalog.

CALIFORNIA ARTICULATION NUMBERS (CAN)

The California Articulation Number System, known as CAN, is a means of identifying comparable courses offered at Cerritos College and other colleges in California. CAN is a system that uses the same prefix and number to identify a course on every participating campus. Each campus has its own number; the CAN is added to denote courses that can be used in lieu of each other at participating colleges. For example, if CAN BUS 2 (BUSA 101) is completed at Cerritos College, that course will be accepted as a course that is designated as CAN BUS 2 at another college campus.

A CAN-identified course assures that a course is not only transferable, but will be used on the receiving campus in the same way as its own CAN-identified course. Over 100 campuses in California are using the CAN System to assist their students in the transfer process. More than 80 Cerritos College courses carry a CAN designation. The CAN designation for Cerritos College courses is listed in the catalog with course descriptions. (See BUSA 101). Additional information is available in the CAN Catalog of Courses in the Counseling Office.
### Business Division

**Business Accounting**
**Business Administration**
**Business Administrative Support Systems**
**Business Communications**
**Business Court Reporting/Computerized Shorthand**
**Business Finance**
**Business Paralegal**
**Business Real Estate**
**International Studies**

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### Counseling and Guidance Division

**Counseling and Guidance**

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### Fine Arts and Communications Division

**Art and Design**
**Journalism**
**Music**
**Photography**
**Theatre Arts**

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### Health Occupations Division

**Child Development**
**Child Development/Early Childhood**
**Child Development/Family Child Care**
**Child Development/Infant Toddler**
**Child Development/Instructional Aide**
**Child Development/Instructional Aide-Bilingual Education**
**Child Development/Parent Education**
**Child Development/School Age**
**Child Development/Special Education**
**Culinary Arts**
**Dental Assisting**
**Dental Hygiene**
**Health Occupations**
**Emergency Medical Technician**
**Medical Front Office**
**Medical Assistant**
**Nursing**
**Pharmacy Clerk**
**Pharmacy Technician**
**Physical Therapist Assistant**
*Speech-Language Pathology*

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### Humanities and Social Sciences Division

**Administration of Justice**
**Anthropology**
**Economics**
**History**
**Philosophy**
**Political Science**
**Psychology**
**Sociology**

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### Liberal Arts Division

**English**
**English as a Second Language**
**French**
**German**
**Japanese**
**Reading**
**Sign Language**
**Spanish**
**Speech**

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### Science, Engineering, and Mathematics Division

**Anatomy and Physiology**
**Astronomy**
**Biology**
**Botany**
**Chemistry**
**Computer and Information Sciences**
**Earth Science**
**Educational Technology**
**Energy**
**Engineering**
**Geography**
**Geology**
**Mathematics**
**Microbiology**
**Ornamental Horticulture**
**Physics**
**Zoology**

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### Technology Division

**Architecture**
**Automotive Collision Repair**
**Automotive Mechanical Repair**
**Cosmetology**
**Drafting**
**Electronics**
**Industrial Arts**
**Machine Moldmaking for Plastics**
**Machine Tool Technology**
**Manufacturing Technology**
**Metallurgy & Material Science**
**Plastics Manufacturing**
**Technical Mathematics**
**Welding**
**Woodworking Manufacturing Technologies**

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### Technology Training and Distance Education Division

**Educational Technology**

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*All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.*

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ACCOUNTING
SEE BUSA (Business Accounting/Finance)

ADMINISTRATION OF JUSTICE
(Humanities/Social Sciences Division)
The following courses have been developed by an Area Advisory Committee and are uniform in content with the offerings of most colleges and in conformance with guidelines from the California Community College Chancellor's office.

AJ 71 FIRST AID-ADMINISTRATION OF JUSTICE 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
This basic course in emergency first aid and cardiopulmonary resuscitation emphasizes how to recognize and render assistance to the ill or injured where there is an airway obstruction, respiratory arrest, cardiac arrest, severe bleeding, shock, actual or suspected fractures, head injuries, or other life-threatening environmental circumstances. This course meets the California Department of Health requirements as described in the California Administrative Code. A basic Red Cross Certificate will be issued to those students who successfully complete the course. (Formerly AJ 13)

AJ 91 REPORT WRITING PROCEDURES 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course includes the procedures and practices commonly used to gather data and prepare a variety of police records. Emphasis will be placed upon the need to use correct spelling, sentence structure, punctuation and vocabulary in criminal justice reports to meet statistical, legal and prosecution requirements of the criminal justice system. (Formerly AJ 11)

AJ 101 INTRODUCTION TO ADMINISTRATION OF JUSTICE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course provides a study of the history and philosophy of the system of administration of criminal justice in the United States. It examines the various sub-systems; role expectations and their interrelationships; theories of crime, punishment, and rehabilitation; ethics; education and training for professionalism in the system; and legal words and phrases as an aid in the communication process. (Formerly AJ 1)
Transfer Credit: CSU; UC

AJ 102 CONCEPTS OF CRIMINAL LAW 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course provides an introduction to the historical development and philosophy of law and constitutional provisions; as well as crime definitions, classifications of crime, legal research, legal methodology, and concepts of law as a social force. A brief analysis of criminal intent, parties to a crime, elements of crime, corpus delicti, defenses to crimes and an introduction to laws of arrest will also be undertaken in this class. (Formerly AJ 2.1)
Transfer Credit: CSU; UC

AJ 103 CRIMINAL PROCEDURES 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course provides a detailed examination of California criminal procedure, including the California court system, jurisdiction and venue, laws of arrest, grand jury proceedings, extradition, pre-trial procedures, conduct of criminal trials, rights of the defendant, post-trial motions and appeals, probation and parole. (Formerly AJ 3)
Transfer Credit: CSU;

AJ 104 CRIMINAL EVIDENCE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course stresses the origin, development, philosophy, and constitutional basis of evidence; constitutional and procedural considerations which affect arrest, search and seizure; kinds and degrees of evidence; the rules governing the admissibility of evidence; and judicial decisions relating to individual rights. (Formerly AJ 4)
Transfer Credit: CSU

AJ 105 COMMUNITY RELATIONS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course provides a study of the relationship between law enforcement agencies and the changing communities they serve. The student will compare various approaches to preventing crime and limiting the effects of crime on the individual and the community. The course will also focus on the ethics, politics and the professional image necessary to maintain positive rapport between law enforcement agencies and their communities. (Formerly AJ 5)
Transfer Credit: CSU; UC

AJ 110 CONCEPTS OF ENFORCEMENT SERVICES 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course explores the theories, philosophies and operational concepts of Law Enforcement Field Services, and examines the role expectations of the police field officer. Emphasis is placed upon patrol, traffic and public service responsibilities and their relationship to the total criminal justice system. (Formerly AJ 10)
Transfer Credit: CSU

AJ 130 TRAFFIC CONTROL AND INVESTIGATION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is an in-depth study of the California Vehicle Code, the enforcement of basic traffic laws, selective enforcement, public relations, highway safety engineering, and violator contact. Also included are accident investigation, skid mark analysis, preservation of evidence, hit and run investigation, the intoxicated driver, enforcement methods and psychology, and specialized traffic enforcement units. (Formerly AJ 30)
Transfer Credit: CSU

AJ 150 INTRODUCTION TO CORRECTIONS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course introduces the student to the philosophy, history, functions and objectives of the system of corrections in the United States. It includes a study of correctional institutions, community based corrections, parole and probation. An overview of special problems and clientele, custody practices and procedures, and treatment technique will be stressed. (Formerly AJ 50)
Transfer Credit: CSU

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
A] 173
ADMINISTRATIVE OF JUSTICE OCCUPATIONAL WORK EXPERIENCES 4 UNITS
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Administration of Justice work experience 173 or 20 hours of employment per week for Administration of Justice work experience 174. The employment must be in a job related to the student's educational goal.
Prerequisite: (1) Concurrent enrollment in the Administration of Justice vocational program with 7 or more units including occupational work experience. (2) Consent of the department.
Occupational Work Experience is a supervised employment program in an approved work station related to the student's declared major. Students meet with their instructor for a minimum of one hour per week and will receive credit for on-the-job learning experiences that are new or are an expansion of their regular responsibilities. Student who are not employed but wish to gain work experience may be placed in a non-paying position if such opportunities are available. This course may be taken for a maximum of 16 units. (Formerly A] 73/74)
Transfer Credit: CSU

A] 180 (Not degree applicable)
INTRODUCTION TO PRIVATE AND BUSINESS SECURITY 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with a presentation of the history and development of security services and inter-relationships with legal processes, including the organization, administration, and management of private security. The operation of security departments, including investigations into internal thefts and customer thefts, public relations, and a comparison of public and private enforcement statutes and procedures is covered. Current requirements for state security personnel and an examination of career opportunities will be discussed. Powers of arrest will be taught, which satisfies the requirements of the State of California under Business and Professions Code Section 7514.1. (Formerly A] 80)

A] 202
SUBSTANTIVE LAW 3 UNITS
Class hours: 3 lecture
Prerequisite: A] 102 or equivalent with a grade of Credit or "C" or higher.
This course is a study of the substantive criminal laws commonly enforced by municipal, county or state police officers, or other criminal justice investigators. The course provides a complete analysis of both statutory laws and case decisions. (Formerly A] 2.2)
Transfer Credit: CSU

A] 208
SPECIAL ISSUES IN LAW ENFORCEMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course provides instruction in special issues critical to effective service by law enforcement professionals in modern society. Topics to be covered will include police as professionals; defining and applying values, principles, and moral standards to law enforcement; police and the community; tactical communication; correctly utilizing information systems in police work; and dealing effectively with persons with disabilities. (Formerly A] 97.1/A] 8)
Transfer Credit: CSU

A] 220
CRIMINAL INVESTIGATION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course stresses the fundamentals of investigation: crime scene search and recording, collection and preservation of physical evidence, scientific aids to investigation, modus operandi, sources of information, interviews and interrogation, follow-up investigation and case preparation. (Formerly A] 20)
Transfer Credit: CSU

A] 221
NARCOTICS AND VICE CONTROL 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is an introduction to the fields of narcotics and vice investigation. It examines the detection, suppression, apprehension and prosecution of narcotic and vice law violators. Field identification of controlled substances and their effects on the body are stressed. Laws relating to bookmaking, gambling, prostitution and morals offenses are also covered. (Formerly A] 21)
Transfer Credit: CSU

A] 222
JUVENILE PROCEDURES 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course emphasizes the organization, functions, and jurisdiction of juvenile agencies; the processing and detention of juveniles; juvenile case disposition; juvenile statutes and court procedures relative to juvenile offenders. (Formerly A] 22)
Transfer Credit: CSU

BUSINESS

SEE BA (Business Administration)

ANATOMY AND PHYSIOLOGY
(Science/ Engineering/ Math Division)

A&P 120
INTRODUCTION TO HUMAN ANATOMY AND PHYSIOLOGY 4 UNITS
Class hours: 3 lecture/1 quiz/2 lab
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is designed as a survey of human anatomy and physiology. It covers the basic principles of human anatomy and physiology including a survey of the tissues, organ systems, and principal anatomical features. Emphasis is also placed on integrated organ system physiology, human genetics and development. (This course is designed primarily for non-biology majors.) (Formerly A&P 10)
Transfer Credit: CSU; UC

A&P 130
HUMAN ANATOMY AND PHYSIOLOGY 5 UNITS
Class hours: 4 lecture/1 quiz/2 lab
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher, satisfactory completion of the Reading Placement Process or READ 54 or equivalent with a grade of Credit or "C" or higher, and CHEM 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course examines the gross and microscopic structures of the human body using a...
systematic approach. Emphasis is placed on the normal function and integration of the organ systems. Homeostatic imbalances of many systems are examined. The laboratory utilizes models, human cadaver, skeletal materials, dissection and selected physiological exercises. This course is designed for students entering the nursing program at Cerritos College; however, it also meets the needs of other allied health programs. This course is strongly recommended for students who plan on taking A&P 200 and A&P 201. (Formerly A&P 40)

**Transfer Credit:** CSU; UC

**A&P 200** *(CAN BIOL SEQ B)(CAN BIOL 10)*
**HUMAN ANATOMY** 5 UNITS
Class hours: 3 lecture/2 quiz/4 lab
Recommendation: BIOL 120 or equivalent with a grade of Credit or “C” or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or “C” or higher. This course emphasizes the gross structure, microscopic anatomy, and embryology of the organ systems of the human body. Emphasis is placed on showing the complementarily structure and function of the cellular, tissue, organ, and system levels. This course satisfies the requirements for majors in four year nursing programs, physical therapy, physical education, dental hygiene, and related fields. (Formerly A&P 52)

**Transfer Credit:** CSU; UC

**A&P 201** *(CAN BIOL SEQ B)(CAN BIOL 12)*
**HUMAN PHYSIOLOGY** 5 UNITS
Class hours: 3 lecture/2 quiz/4 lab
Prerequisite: A&P 200 and CHEM 100 or equivalents with grades of Credit or “C” or higher. This course involves a detailed study of the function of the human body with an emphasis on the maintenance of homeostasis by the various organ systems. The course will meet the requirements of four year nursing, dental hygiene, physical therapy, paramedical, physical education, and related majors. (Formerly A&P 53)

**Transfer Credit:** CSU; UC

**Anthropology**

(Humanities/ Social Sciences Division)

**ANTH 100** *(CAN ANTH 4)*
**CULTURAL ANTHROPOLOGY** 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course traces the social behavior of present societies exploring various cultures on earth. The class will study those societies in terms of culture growth, through a survey of the basic, learned behavior patterns. Thus the class will study a wide range of cultural phenomena, including material culture, social organization, customs, religions, languages, family life, economics, the arts and literature. (This course is not open to students who are currently enrolled in or who have received credit for Anthropology 101.) (Formerly ANTH 2)

**Transfer Credit:** CSU; UC

**ANTH 101**
**FACES OF CULTURE** 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
This is an introductory study of the structures and process of culture. The basic concepts of culture are presented including subsistence patterns, organizing devices, patterns for transmission of culture, economics, political organizations, social control, and culture change. The methods of anthropological research and major theoretical orientations are also described. (This course is not open to students who are currently enrolled in or who have received credit for Anthropology 100.) (Formerly ANTH 5)

**Transfer Credit:** CSU

**ANTH 115** *(CAN ANTH 2)*
**PHYSICAL ANTHROPOLOGY** 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is about the human past; where we came from and how we got to be the way we are today in terms of both biological and cultural evolution. The topics covered will include: the origin and development of the human species; heredity and population genetics; fossil evidence; the human's relation to the rest of the animal kingdom; and modern human diversity and variation. (Formerly ANTH 1)

**Transfer Credit:** CSU; UC

**ANTH 120** *(CAN ANTH 6)*
**INTRODUCTION TO ARCHAEOLOGY** 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Archaeology is the study of mankind’s past. This course will cover the history of archaeology, and explore the objectives and methods of modern archaeology. Today’s archaeological curiosity is tempered by the scientific method; a combination of sciences in order to get a better grasp on a total understanding of people. This course will explore the world of the archaeologist in order to appreciate the impact that the study of antiquities has had in understanding modern human cultures. (Formerly ANTH 3)

**Transfer Credit:** CSU; UC

**ANTH 200**
**NATIVE PEOPLES OF NORTH AMERICA** 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
The course is a survey of the origins, culture areas, and sociocultural patterns of the native Americans, north of Mexico. This will include a study of the historic spectrum, from prehistory to contemporary times. Emphasis will be on the culture change after contact with Europeans, and the impact of the Western expansion. (Formerly ANTH 4)

**Transfer Credit:** CSU; UC

**ANTH 201**
**NATIVE PEOPLES OF CALIFORNIA** 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is a survey of California Indian cultures including their prehistory and social, political, and religious beliefs. The effects of European, Middle American, and Asian contact, and the resultant adaptations on current life situations of contemporary American native Americans will be examined. (Formerly ANTH 10)

**Transfer Credit:** CSU; UC

**ANTH 202**
**THE MAYA, INCA AND AZTECS: ANCIENT CIVILIZATIONS OF THE AMERICAS** 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is a survey of ancient Indian culture of Northern, Middle and South America, including their prehistory and social, political, and religious beliefs. The impact of European contact and resultant
ANTH 203
THE ANTHROPOLOGY OF MAGIC, WITCHCRAFT, AND RELIGION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or "C" or higher.
This course is a cross-cultural study of the forms and functions of supernatural beliefs and associated rituals in primarily nonwestern societies. Emphasis is on understanding beliefs and rituals involved in animism, individualistic cults, shamanism, totemism, ancestor worship and witchcraft within their social contexts and within the larger scope of religion and human life. (Formerly ANTH 12)
Transfer Credit: CSU; UC

ANTH 250
INTRODUCTION TO FIELD ARCHAEOLOGY 3 UNITS
Class hours: 1 lecture, 6 lab
Prerequisite: None.
Recommendation: ANTH 120 or equivalent with a grade of Credit or "C" or higher.
This is an introduction to the method of field archaeology including archaeological survey, excavation, mapping, recording of sites, and lab analysis of archaeological artifacts. (Formerly ANTH 16)
Transfer Credit: CSU

ANTH 251
FIELD TRIPS IN ARCHAEOLOGY 3 UNITS
Class hours: 1 lecture, 6 lab
Prerequisite: None.
Recommendation: ANTH 250 or equivalent with a grade of Credit or "C" or higher.
This is an advanced course in archaeological theory and methods in the field and the laboratory. The emphasis will be on actual site excavation and laboratory analysis. Field trips are required. Fees are required. This course may be taken for a maximum of 6 units. (Formerly ANTH 17)
Transfer Credit: CSU

ARCHITECTURE
(Technology Division)

ARCH 43/44 (Not degree applicable)
ARCHITECTURAL DRAWING OCCUPATIONAL WORK EXPERIENCE 3-4 UNITS
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Architectural Drawing work experience 73 or 20 hours of employment per week for Architectural Drawing work experience 74. The employment must be in a job related to the student's educational goal.
Prerequisite: Concurrent enrollment in the Architectural Drawing occupational program with 7 or more units including occupational work experience.
Work experience/career internship provides the opportunity for Architectural Drawing students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to the major and job skills must be completed on the job/training site. These courses may be taken for a maximum of 15-16 units. (Formerly ARCH 73/74)

ARCH 50
INTRODUCTION TO COMPUTER AIDED DRAFTING FOR ARCHITECTURE 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: DRAF 131 or ARCH 111 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course provides an introduction to computer aided drafting and design using AutoCAD software with architecture specific applications. Students will learn the fundamentals of creating two-dimensional computer drawings including creating and modifying objects, the placing of text and dimensions, working with arrays and blocks, and creating professional quality copies using a computer-driven plotter. Hands-on exercises will be used to reinforce the functions of AutoCAD. (Formerly ARCH 22)
Transfer Credit: CSU

ARCH 51
ADVANCED APPLICATIONS OF COMPUTER AIDED DRAFTING FOR ARCHITECTURE 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: ARCH 50 or DRAF 138 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course continues to explore computer aided drafting and design using AutoCAD software with architecture specific applications. Students will explore advanced AutoCAD commands to create attributes, external references, and basic customization techniques. This course will also assist students in creating three-dimensional surfaces, images and solid modeling. Students will learn programming techniques using AutoLISP and Visual Basic for Applications (VBA) to increase computer proficiency. Hands-on exercises will be used to reinforce the functions of AutoCAD. (Formerly ARCH 33)
Transfer Credit: CSU

ARCH 110
INTRODUCTION TO ARCHITECTURE AND ENVIRONMENTAL DESIGN 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course provides an overview of the architectural profession allowing the student to make an informed career choice. Topics include professional ethics, licensing and educational requirements, career opportunities in related fields, typical organizational structure of architectural firms, legal requirements, and a review of contemporary issues facing the profession. (Formerly ARCH 10)
Transfer Credit: CSU; UC

ARCH 111
INTRODUCTION TO ARCHITECTURAL DRAFTING 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
This course is an introduction to the preparation of architectural working drawings. The course includes drawing conventions, design considerations, and the relationship between different types of architectural drawings, specifications, and construction techniques. Emphasis is placed on residential construction and commercial buildings. The theory of computer-aided drafting is included. (Formerly ARCH 11)
Transfer Credit: CSU

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted. 152
ARCH 112
HISTORY OF ARCHITECTURE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is a survey of the history of architecture from the birth of civilization to the present. Emphasis is placed upon the understanding of the technological, sociological, aesthetic, and artistic influences which determine our built environment. This course will familiarize students with the different architectural periods as well as their characteristic design elements and significant architects. (Formerly ARCH 12)
Transfer Credit: CSU, UC

ARCH 113
BUILDING CODES 4 UNITS
Class hours: 4 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an in-depth study of the statutes and regulations which have been established by law to protect the public health, safety, and welfare. Analysis of the construction of buildings, their use, and accessibility requirements in compliance with applicable laws will be stressed. (Formerly ARCH 20)
Transfer Credit: CSU

ARCH 121
MATERIALS AND METHODS OF BUILDING CONSTRUCTION 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: ARCH 111 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course presents basic considerations and design implications of major structural and non-structural building systems. Analysis of the materials and construction details of commercial and industrial buildings is given. Emphasis is placed upon the purpose and presentation of working drawings and their relationship to building codes is provided. (Formerly ARCH 21)
Transfer Credit: CSU

ARCH 122
ARCHITECTURAL DELINEATION 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: ARCH 111 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is a study of, and laboratory experience in, three-dimensional representations including renderings, perspective drawings, paraline drawings and presentation drawings of architectural projects. Emphasis is on the techniques of various drawing media which will enable the students to express their architectural ideas. (Formerly ARCH 30)
Transfer Credit: CSU, UC

ARCH 211
ARCHITECTURAL DESIGN, PROGRAMMING, AND PRESENTATION 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: ARCH 121 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course covers the development of critical thinking skills in design and programming of the single building. Study and application of the various factors that determine the form of buildings with a special emphasis on graphic presentations, colors, and models are given. (Formerly ARCH 31)
Transfer Credit: CSU

ARCH 221
WORKING DRAWING/ARCHITECTURAL DESKTOP 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: ARCH 121, ARCH 50 or DRAF 138 or equivalent with grades of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This is an advanced computer aided drafting, design theory, and application course. The student will master techniques for creating three-dimensional building models, design presentations, and construction documents for architectural projects in a production environment. Students receive instruction utilizing the most recent release of AutoCAD interfacing with Architectural Desktop. (Formerly ARCH 41)
Transfer Credit: CSU

ARCH 222
ARCHITECTURAL DESIGN THEORY II 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: ARCH 212 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course includes the continued development of the creative thinking process and its application to advanced architectural design theory, focusing on the synthesis of the relationship between theoretical concepts, space, color form, and texture. The emphasis of the course is on presentation graphics, models, and the development of a portfolio of student work. This course is particularly applicable to students wishing to transfer into a professional architectural degree program. (Formerly ARCH 42)
Transfer Credit: CSU

ART AND DESIGN
(Fine Arts/Communications Division)

ART 50
CHINESE BRUSH PAINTING 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides the basic introduction to oriental brush, ink and colors. The student learns concepts in design and composition, as well as the philosophy that is the basis of...
Chinese brush painting. Subjects include traditional floral and animal studies, and abstract expressions. Techniques for mounting of art work are also studied. This course may be repeated for a maximum of 6 units. (Formerly ART 69.10/ART 22)

ART 100
INTRODUCTION TO WORLD ART 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an overview of world art from prehistoric times to the present. It is an introduction to the ideas that prompt art making and the search for “beauty” and “truth” (aesthetics) in various cultural contexts. It includes an analysis of the language of the visual arts using examples from throughout the world. It also includes an investigation of the artistic techniques and materials used in painting, printmaking, photography, film, ceramics, sculpture and architecture. (Formerly ART 7)
Transfer Credit: CSU; UC

ART 101 (CAN ART SEQ A)/(CAN ART 2)
APPRECIATION AND HISTORY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is a combination of art appreciation and art history designed to be of interest and value to the art and non-art major. It covers art and its role in human affairs from its beginning to the Renaissance, with emphasis on giving students an understanding and appreciation of sculpture, architecture, painting, and crafts. (Formerly ART 1)
Transfer Credit: CSU; UC

ART 102 (CAN ART SEQ A)/(CAN ART 4)
APPRECIATION AND HISTORY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
A continuation of ART 101 is presented in this course. Architecture, painting, sculpture, and crafts from the Renaissance to the mid-18th Century are studied historically and critically. (Formerly ART 2)
Transfer Credit: CSU; UC

ART 103
MODERN AND CONTEMPORARY APPRECIATION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed as a survey of art from the Neo-Classical period of the late Eighteenth Century to the present. The course will focus on the Western World. (Formerly ART 3)
Transfer Credit: CSU; UC

ART 104
CONTEMPORARY ART PRACTICES 3 UNITS
Class hours: 2 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: ART 101, ART 102, or ART 103 or equivalent with grades of Credit or “C” or higher.
This course introduces the student to a variety of mediums and concepts for the purpose of expanding personal expression, as well as examining recent art developments. Conceptual art, performance, installation, and video art are among the approaches considered, with an emphasis on interdisciplinary forms. This course may be taken for a maximum of 6 units. (Formerly ART 4)
Transfer Credit: CSU; UC

ART 105
WOMEN ARTISTS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is a survey of women artists from the earliest documentation to the present, predominantly in the Western World. (Formerly ART 5)
Transfer Credit: CSU; UC

ART 106
MEXICAN ART 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is a survey of Mexican art history, from Pre-Colombian to Chicano art. It will include an examination of the cultural, socio-political and religious influences that have shaped the art of Mexico. The course will consist of lecture, slide presentation, discussion, and analysis of representative art of the various periods. (Formerly ART 6)
Transfer Credit: CSU; UC

ART 107
ASIAN ART HISTORY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
Asian art history surveys the arts of India, Thailand, Cambodia, Vietnam, Java, China, Korea and Japan. Architecture, painting, sculpture, printmaking and other arts are examined within their philosophical, religious, intellectual and social contexts. (Formerly ART 8)
Transfer Credit: CSU; UC

ART 110
FREEHAND DRAWING 3 UNITS
Class hours: 1 lecture/5 studio
Prerequisite: ART 110 or equivalent with a grade of Credit or “C” or higher.
This course is a further investigation of the fundamentals of ART 110 with emphasis on expression, interpretation, and individual problem solving. In addition to traditional media and techniques, the student will explore experimental and contemporary approaches as they apply to fine arts and graphic arts. (Formerly ART 11)
Transfer Credit: CSU; UC

ART 111
INTERMEDIATE FREEHAND DRAWING 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 110 or equivalent with a grade of Credit or “C” or higher.
This course teaches how to draw the live model. Students learn the language and the elements of drawing, anatomy, and the perspective of the human form in space. Demonstrations are given on a variety of approaches to drawing the figure. Students develop technique with an appreciation for the inherent beauty of the material they are working with charcoal, conte, colored pastel and watercolor. (Formerly ART 12)
Transfer Credit: CSU; UC

ART 112
LIFE DRAWING 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 110 or equivalent with a grade of Credit or “C” or higher.
This course teaches how to draw the live model. Students learn the language and the elements of drawing, anatomy, and the perspective of the human form in space. Demonstrations are given on a variety of approaches to drawing the figure. Students develop technique with an appreciation for the inherent beauty of the material they are working with charcoal, conte, colored pastel and watercolor. (Formerly ART 12)
Transfer Credit: CSU; UC

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
### Announcement of Courses

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<th>Course Code</th>
<th>Course Title</th>
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<th>Class Hours</th>
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<tbody>
<tr>
<td>ART 115L</td>
<td>PRINTMAKING LAB</td>
<td>1 UNIT</td>
<td>3 lab</td>
<td>ART 116, ART 117, ART 218 or ART 219.</td>
<td>CSU; UC</td>
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<tr>
<td>ART 116</td>
<td>BEGINNING PRINTMAKING</td>
<td>3 UNITS</td>
<td>2 lecture/4 studio</td>
<td>None.</td>
<td>CSU; UC</td>
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<tr>
<td>ART 117</td>
<td>INTERMEDIATE PRINTMAKING</td>
<td>3 UNITS</td>
<td>2 lecture/4 studio</td>
<td>ART 116 or equivalent with a grade of Credit or &quot;C&quot; or higher.</td>
<td>CSU; UC</td>
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<tr>
<td>ART 120</td>
<td>TWO-DIMENSIONAL DESIGN</td>
<td>3 UNITS</td>
<td>2 lecture/4 studio</td>
<td>None.</td>
<td>CSU; UC</td>
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<tr>
<td>ART 121</td>
<td>THREE-DIMENSIONAL DESIGN</td>
<td>3 UNITS</td>
<td>2 lecture/4 studio</td>
<td>ART 120 or equivalent with a grade of Credit or &quot;C&quot; or higher.</td>
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<tr>
<td>ART 130A</td>
<td>FUNDAMENTALS OF PAINTING</td>
<td>3 UNITS</td>
<td>2 lecture/4 studio</td>
<td>ART 133A or equivalent with a grade of Credit or &quot;C&quot; or higher.</td>
<td>CSU; UC</td>
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<tr>
<td>ART 130B</td>
<td>FUNDAMENTALS OF PAINTING</td>
<td>3 UNITS</td>
<td>2 lecture/4 studio</td>
<td>ART 130A or equivalent with a grade of Credit or &quot;C&quot; or higher.</td>
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<tr>
<td>ART 133A</td>
<td>WATERCOLOR PAINTING</td>
<td>3 UNITS</td>
<td>1 lecture/5 studio</td>
<td>None.</td>
<td>CSU; UC</td>
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<tr>
<td>ART 133B</td>
<td>WATERCOLOR LANDSCAPE PAINTING</td>
<td>3 UNITS</td>
<td>1 lecture/5 studio</td>
<td>ART 133A or equivalent with a grade of Credit or &quot;C&quot; or higher.</td>
<td>CSU; UC</td>
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</tbody>
</table>

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well as additional experiences, in color theory, paint application, light logic, and perspective in watercolor landscape painting. (Formerly ART 35)
Transfer Credit: CSU; UC

ART 136
BEGINNING PAINTING FOR ART MAJORS 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 110 or equivalent with a grade of Credit or “C” or higher.
Recommendation: ART 120 or equivalent with a grade of Credit or “C” or higher.
This is a fundamental course in painting designed for art majors. Topics include use and manipulation of painting materials and color; depicting mood and sensation; expression of form, edge, and negative space; and devices in composition. Projects include creative thinking as applied to non-objective painting, formal invention, and symbolic imagery. Knowledge of art history is expanded through gallery and museum visits and assigned reading. This course may be taken for a maximum of 6 units. (Formerly ART 36)
Transfer Credit: CSU; UC

ART 144
JEWELRY / METALSMITHING 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: None.
Recommendation: None.
This is an introductory course covering the design and technical processes of jewelry and metalsmithing. Emphasis will be placed on fabrication techniques and their design potential. The implication and effects of the history and culture of jewelry and body ornamentation are learned through audio/visual lectures and museum visits. Projects include brooches, rings with stone settings, chains, etc. This class may be repeated for a maximum of 6 units. (Formerly ART 74)
Transfer Credit: CSU

ART 145
JEWELRY CASTING AND MOLDS 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 144 or equivalent with a grade of Credit or “C” or higher.
This is the second course in a sequential program covering the design and technical processes of jewelry and metalsmithing. Emphasis will be placed on the continued development of skills in designing and fabrication of jewelry and metalsmithing. The techniques and projects covered are forging/smitihing, hollow constructions and casting processes. The study of the history and culture of jewelry and body ornamentation is continued through audio/visual lectures and museum and gallery visits. This class may be repeated for a maximum of 6 units. (Formerly ART 75)
Transfer Credit: CSU

ART 150
BEGINNING CERAMICS I (CAN ART 6) 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: None.
Recommendation: None.
This course is designed as an introduction to the ideas, techniques, and tradition of the art of ceramics. This course may be taken for a maximum of 6 units. (Formerly ART 50)
Transfer Credit: CSU; UC

ART 151
CERAMICS - WHEELTHROWING 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: ART 150 or equivalent with a grade of Credit or “C” or higher.
Corequisite None
Recommendation: None.
This course builds on techniques learned in beginning Ceramics I. Emphasis is on the use of the potter’s wheel. Glaze technology is introduced. This course may be taken for a maximum of 6 units. (Formerly ART 51.1)
Transfer Credit: CSU

ART 152
CERAMICS - HANDBUILDING 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: ART 150 or equivalent with a grade of Credit or “C” or higher.
Corequisite None
Recommendation: None.
This course builds on techniques learned in Ceramics I. Emphasis is based on the use of complex hand-forming techniques. Glaze technology is included. This course may be taken for a maximum of 6 units. (Formerly ART 51.2)
Transfer Credit: CSU

ART 155
BEGINNING CERAMIC SCULPTURE 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite:ART 150 or equivalent with a grade of Credit or “C” or higher.
Recommendation:None.
This course is designed as an introduction to the ideas, techniques, and tradition of the art of ceramic sculpture. This course may be taken for a maximum of 6 units. (Formerly ART 55.1)
Transfer Credit: CSU; UC

ART 156L
CERAMICS LAB 1 UNIT
Class hours: 4 lab. Open entry/open exit
(17 weeks)
Prerequisite: None.
Corequisite:ART 150,ART 151,ART 152,ART 252,ART 253,ART 155, or ART 255
Recommendation: None.
This lab course is intended to complement the other courses in the ceramics curriculum. It is designed to give practical experience in the techniques and technology of ceramics, including handbuilding, wheel-throwing, sculpture, surface treatments, and glazing. The course will improve the skills and creativity of students enrolled in the ceramics courses. This course may be taken for a maximum of 6 units.
Transfer Credit: CSU

ART 160
LIFE MODELING 2 UNITS
Class hours: 1 lecture/3 studio
Prerequisite: None.
This is an course designed to familiarize the student with the human figure, its inner and surface structure, and techniques of sculpturing the figure in modeling materials. (Formerly ART 60)
Transfer Credit: CSU; UC

ART 162
SCULPTURE I 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: None.
Recommendation: ART 121 or equivalent with a grade of Credit or “C” or higher.
This course is designed as an introduction to the ideas, techniques, and materials involved in the making of sculptural forms. (Formerly ART 252)
Transfer Credit: CSU; UC

ART 163
SCULPTURE II 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite:None.
Corequisite: ART 150, ART 151, ART 152, ART 252, ART 253, ART 155, or ART 255
Recommendation:None.
This course is a continuation of ART 162, Sculpture I. New ideas, techniques, and materials for making sculpture are introduced. This course may be taken for a maximum of 6 units. (Formerly ART 63)
Transfer Credit: CSU; UC
ART 170
BEGINNING WOOD SCULPTURE I 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
This course covers the selection, preparation and use of hand tools as related to wood sculpture. The student investigates the properties and characteristics of wood as a basic three-dimensional design medium. Techniques such as knife carving, gouging, chiseling, rasping, texturing, sanding and finishing will be covered. This course may be taken for a maximum of 4 units. (Formerly ART 80)
Transfer Credit: CSU

ART 171
BEGINNING WOOD SCULPTURE II 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite:ART 170 or equivalent with a grade of Credit or “C” or higher.
This course covers the use of hand tools and power equipment as related to creating wood objects. The designing of both traditional and contemporary wood-sculpture items will be studied. The areas of lamination, fabrication, and subtractive techniques in advanced projects will be learned. This course may be taken for a maximum of 4 units. (Formerly ART 81)
Transfer Credit: CSU

ART 180
CALLIGRAPHY I 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: None.
This foundation course explores the history, theory, and techniques which shape letterforms, past and present. Emphasis will be on developing skill and knowledge through the historical study of calligraphy and the manipulation of tools and materials. The Roman style will be studied through a modular approach beginning with linear forms, then broad pen sans serif forms, and finally Humanist Bookhand. An appreciation for color, design, and the aesthetic qualities of letter forms will be stressed in their contemporary usage. This course may be taken for a maximum of 6 units. (Formerly ART 41)
Transfer Credit: CSU

ART 181
CALLIGRAPHY II 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite:ART 180 or equivalent with a grade of Credit or “C” or higher.
This course focuses on the development of the Italic letterforms in addition to the continued study of the historical development and refinement of calligraphic skills and knowledge. Various styles of Italic will be studied in conjunction with a review of the Roman styles of the previous semester. Calligraphy II will continue to stress an appreciation for the color, design, and aesthetic properties of quality letterforms in their contemporary usage. This course may be taken for a maximum of 6 units. (Formerly ART 42)
Transfer Credit: CSU

ART 182A
LETTERING AND TYPGRAPHY 3 UNITS
Class hours: 2 lecture/ 4 studio
Prerequisite:ART 182A or equivalent with a grade of Credit or “C” or higher.
The exploration of lettering and typography, its creation, use and function in printing, packaging, publishing, and advertising constitute the basis for this course. Emphasis is on drawn letterforms with a view toward their historical development and with the objective of acquiring skill and sensitivity in their delineation and finish for reproduction.
The classification of type styles will be learned and the basic elements of typography will be explored through practical studio exercises. (Formerly ART 43)
Transfer Credit: CSU

ART 182B
LETTERING AND TYPGRAPHY II 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite:ART 182A or equivalent with a grade of Credit or “C” or higher.
The design and application of letterforms requiring increased technical skills and intensive experience in the use of current phototypesetting equipment and computer graphics programs provide the basis for this second semester of Lettering and Typography. Topics include illustrative lettering, phototypesetting, experimental typography, computer designed letterforms, digital typography and type design. (Formerly ART 42.1)
Transfer Credit: CSU

ART 184
GRAPHIC DESIGN I 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite:ART 182A or equivalent with a grade of Credit or “C” or higher.
Fundamental studies are conducted in the history, theories, techniques, and practices of graphic design. Emphasis will be placed on the application of basic design principles to graphic design problems in visual communica-

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ART 196  INTRODUCTION TO DESIGNING WEB GRAPHICS  3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 205 or equivalent with a grade of Credit or “C” or higher.
The course introduces students to the principles and design skills essential to designing web pages. The students will use web page creation software and the tools they provide to create full-featured-interactive web sites. This class may be taken for a maximum of 6 units. (Formerly ART 99/ART 96) Transfer Credit: CSU

ART 197  DIGITAL PAINTING  3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is a bridge connecting conventional drawing and painting tools and techniques with their computer counterparts. Specifically, this course explores color theory, art history and conventional media, and demonstrates how to translate foundational art theory using digital painting tools. It addresses the needs of students making the transition from traditional to digital media. This course may be taken for a maximum of 6 units. Transfer Credit: CSU

ART 213  INTERMEDIATE LIFE DRAWING  3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 112 or equivalent with a grade of Credit or “C” or higher.
In this course students continue the process of learning to draw the live model. Students practice exploring the rhythm and design inherent in the human figure, seeing and understanding the space a form occupies, understanding the kinesthetics of anatomy, and learning the economy of good drawing technique. The history and evolution of drawing as an art form and contemporary purposes in figure drawing are discussed in lectures. This course may be taken for a maximum of 6 units. (Formerly ART 13) Transfer Credit: CSU; UC

ART 214  SPECIAL STUDIES IN LIFE DRAWING  3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 213 or equivalent with a grade of Credit or “C” or higher.
This course offers advanced work in figure drawing. Emphasis is placed on the student's development of personal style. The pictorial space of the drawing is given the same importance as in a painting, and the student seeks to elevate the classroom sketch to a well designed and effective work of art. The course considers the relationship between the student's intentions in drawing to his or her work in other media, such as painting or sculpture. Focus is placed on the personal and creative aspects of drawing, how and what a drawing communicates, developing an advanced technique, and using professional materials. This course may be repeated for a maximum of 6 units. (Formerly ART 14) Transfer Credit: CSU; UC

ART 218  SCREENPRINTING  3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 117 or equivalent with a grade of Credit or “C” or higher.
The class emphasizes advanced skills, techniques, and historical knowledge of screenprinting. An important feature of the course will be the study of the materials, stencils, films, blockouts, photomechanical processes, and inks. Students will be required to complete particular aesthetic problems through their prints. (Formerly ART 18) Transfer Credit: CSU; UC

ART 219  ADVANCED ETCHING  3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 117 or equivalent with a grade of Credit or “C” or higher.
This course is designed to investigate the various techniques of advanced etching, including grounds, aquatints, photo etching, and viscosity printing. Also, collagrapy, embossing, and color will be explored. Students will be required to deal with particular aesthetic problems and techniques. (Formerly ART 19) Transfer Credit: CSU; UC

ART 192  DIGITAL IMAGING  3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course covers image editing of photographic media using Adobe Photoshop and other image editing programs. Topics include scanning basics, image conversion, painting and editing tools, manipulation selections, photographic compositing, masks and layers, color corrections and making color separations. This course may be taken for a maximum of 6 units. (Formerly ART 92) Transfer Credit: CSU

ART 194  MULTIMEDIA DESIGN  3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
This course acquaints students with the use of multimedia programs and the tools they provide to create all featured interactive multimedia prototypes, applications, and presentations. Class work and lab assignments provide hands-on experience for the students. This course may be taken for a maximum of 6 units. (Formerly ART 94) Transfer Credit: CSU

ART 195  3D COMPUTER MODELING  3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
This course is an overview of interactive three-dimensional modeling and rendering techniques on the Macintosh. The course involves assignments emphasizing an understanding of modeling and rendering software tools, and animation concepts. (Formerly ART 95) Transfer Credit: CSU
ART 231
INTERMEDIATE PAINTING 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 112 or equivalent with a grade of Credit or “C” or higher.
This course is designed for students who want a deeper understanding of painting: its history, theories, creative purposes, and technical skills. Through lectures, discussions, and studio work, students discover, articulate, and bring into being their own artistic identity and style. Practical assistance is given on an individual basis. Emphasis is placed on the student’s progression from idea to technical means and visual accomplishment. Students may initiate their own painting projects, or use what subject matter is presented to the class. This course may be taken for a maximum of 6 units. (Formerly ART 31)
Transfer Credit: CSU; UC

ART 232
PORTRAITURE: DRAWING/PAIN TING THE HEAD 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 112 or equivalent with a grade of Credit or “C” or higher.
This course is an introduction to portraiture: its techniques, history, and social uses. Many genres of portraiture will be surveyed to analyze how they give expression to cultural and societal values. Formal portraiture, character stereotypes, images from popular culture, African and Asian masks, the face of the nude, expressionistic psychological portraiture, commercial portrait styles, and the self-portrait, all will be discussed and explored. Live models will pose. This course may be taken for a maximum of 6 units. (Formerly ART 32)
Transfer Credit: CSU; UC

ART 237
LIFE PAINTING 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 112 or equivalent with a grade of Credit or “C” or higher.
This is a painting and lecture course which focuses on the live model as subject matter. The history and philosophy of the figure in art are discussed. Symbolic, expressionistic, allegorical, fantastic, narrative, and abstract styles are surveyed. Drawing and painting techniques and materials are explained. Individual and group critiques are utilized. This course may be taken for a maximum of 6 units. (Formerly ART 37)
Transfer Credit: CSU; UC

ART 238
SPECIAL STUDIES IN PAINTING 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 136 or ART 237 or equivalent with a grade of Credit or “C” or higher. This is an advanced course designed for individualized study by the experienced painter. The student is expected to research the historical and contemporary trends in art and the criticism which relate to his or her work. Discussion centers on how the student’s work communicates specific meaning and functions within the art world. Projects may be in traditional, transitional, or new forms of painting. This course may be taken for a maximum of 6 units. (Formerly ART 38)
Transfer Credit: CSU; UC

ART 239
PORTRAIT PAINTING 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 130A or ART 232, or ART 237 or equivalent with a grade of Credit or “C” or higher.
This is a course in the history, theories, techniques, and practice of portrait painting. Creative imagination, color, space, and pictorial structure are included in the study of the portrait. Live models will be used. The student has the option of working in any drawing or painting medium. This course may be taken for a maximum of 6 units.
(Formerly ART 39)
Transfer Credit: CSU; UC

ART 240
JEWELRY DESIGN FABRICATION 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 145 or equivalent with a grade of Credit or “C” or higher.
This is the third course in a sequential program covering the design and technical processes of jewelry and metalsmithing. The techniques and projects covered in this course include designing a die-formed container, stone setting, mold making, and lost wax casting of multiples. The study of the history and culture of jewelry and body ornamentation is continued through audio/visual lectures and museum and gallery visits. This class may be repeated for a maximum of 6 units.
(Formerly ART 37)
Transfer Credit: CSU; UC

ART 241
HOLLOW FORMING JEWELRY PROCESSES 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 246 or equivalent with a grade of Credit or “C” or higher.
This is the fourth and most advanced course in a sequential program covering the design and technical processes of jewelry and metalsmithing. The techniques and projects covered in this course include designing a suite/set of wearable objects and a set of flatware. Specialized advanced techniques and processes will be taught to match the student’s specific artistic objectives and projects. The study of the history and culture of jewelry and metalsmithing is continued through audio/visual lectures and museum, gallery, commercial and industrial site visits. This course may be repeated for a maximum of 6 units. (Formerly ART 78)
Transfer Credit: CSU

ART 251
FORMS AND TECHNIQUES 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 151 or ART 152 or equivalent with a grade of Credit or “C” or higher.
This course is a continuation of ceramics wheelthrowing and/or handbuilding. Emphasis is placed on the further development of the techniques and forms explored in ART 151 and/or ART 152. Clay technology is introduced. This course may be taken for a maximum of 6 units. (Formerly ART 52)
Transfer Credit: CSU; UC

ART 252
INTERMEDIATE CERAMICS I 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 251 and/or ART 152. Clay technology is introduced.
This course is designed for individualized study by the ceramist with at least three semesters of prior experience at the college level. Students will be expected to write a proposal of work to be accomplished during the semester. Glaze technology and firing are explored in greater depth. This course may be taken for a maximum of 6 units. (Formerly ART 53)
Transfer Credit: CSU; UC

ART 253
INTERMEDIATE CERAMICS II 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 252 or equivalent with a grade of Credit or “C” or higher.
This course is designed for individualized study by the ceramist with at least three semesters of prior experience at the college level. Students will be expected to write a proposal of work to be accomplished during the semester. Glaze technology and firing are explored in greater depth. This course may be taken for a maximum of 6 units. (Formerly ART 54)
Transfer Credit: CSU; UC

ART 254
INTERMEDIATE CERAMICS SCULPTURE 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 155 or equivalent with a grade of Credit or “C” or higher.
This course is a continuation of ART 155. New ideas, techniques and approaches to making ceramic sculpture are introduced. This course may be taken for a maximum of 6 units. (Formerly ART 55.2)
Transfer Credit: CSU; UC

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ART 264
SCULPTURE III 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: None.
Corequisite: None.
Recommendation: ART 163 or equivalent with a grade of Credit or "C" or higher strongly recommended.
This course is designed to extend the student's knowledge and skill in the specific discipline of subtractive sculpture. The student will learn how to make sculpture by traditional stonecarving techniques. This course may be taken for a maximum of 9 units. (Formerly ART 64)
Transfer Credit: CSU

ART 265
SCULPTURE IV 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: None.
Corequisite: None.
Recommendation: ART 163 and WELD 100 or equivalent with grades of Credit or "C" or higher strongly recommended.
This course is designed to extend the student's knowledge and skill in the specific discipline of additive steel sculpture. The student will learn how to use welding processes to create sculptural forms in steel. This course may be taken for a maximum of 9 units. (Formerly ART 65)
Transfer Credit: CSU

ART 270
WOOD LATHE ART 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: ART 171 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: ART 171 or equivalent with a grade of Credit or "C" or higher.
This course covers wood lathe processes as applied to creating art objects. The student learns the two main methods of lathe turning: scraping and shear cutting. Project design, aesthetics, wood selection and finishing are studied. This course may be repeated for a maximum of 4 units. (Formerly ART 69.82/ART 82)
Transfer Credit: CSU

ART 271
CARVING TOOL MAKING 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: ART 171 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course involves techniques in designing and making wood carving tools. Types covered include knives, chisels, and gouges. Steel selection and heat treating are also covered. This course may be repeated for a maximum of 4 units. (Formerly ART 83)
Transfer Credit: CSU

ART 284
GRAPHIC DESIGN II 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 184 or equivalent with a grade of Credit or "C" or higher.
Continued studies in the theories, techniques, and practices of graphic design for visual communications are undertaken. Emphasis is on more advanced techniques and studies of problems in visual communications. Design solutions will be taken from the initial concept through refinement to camera-ready art for print production. Students acquire expertise in the use of process cameras, phototypesetters, and additional equipment. (Formerly ART 44.1)
Transfer Credit: CSU

ART 285
RENDERING II 3 UNITS
Class hours: 2 lecture/4 studio
Prerequisite: ART 185 or equivalent with a grade of Credit or "C" or higher.
Experimental and advanced techniques in the delineation of representational subject matter emphasize the use of color in creating sharp focus drawing. Pencils, colored inks, felt tips, watercolor, gouache, and acrylic will be used. This class is important for those interested in graphic design, industrial design, and technical illustration. (Formerly ART 45.1)
Transfer Credit: CSU

ART 287B
LETTER ARTS II 2 UNITS
Class hours: 1 lecture/3 studio
Prerequisite: ART 287A or equivalent with a grade of Credit or "C" or higher.
This course is designed to develop analytical methods and to increase performance skills in the evaluation of letter structure and the shaping of historical letterform styles. Students will develop the ability to modify historical styles of letterforms for contemporary applications in aesthetic and communicative areas. Expertise and knowledge will be expanded through the exploration of tools, materials, and techniques. This course may be taken for a maximum of 6 units. (Formerly ART 69.4/ART 47.1)
Transfer Credit: CSU

ASTRONOMY

(Science/ Engineering/ Math Division)

ASTR 101
ELEMENTARY ASTRONOMY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This is an introductory survey course in the general principles and fundamentals of astronomy. It is designed primarily for non-science majors, physical science general education credit at transfer institutions. (Formerly ASTR 1)
Transfer Credit: CSU

ASTR 101L
OBSERVATIONAL ASTRONOMY 1 UNIT
Class hours: 3 lab
Prerequisite: ASTR 101 or equivalent with a grade of Credit or "C" or higher.
Laboratory in practical astronomical observations and studies. Designed for the student with an interest in the use of telescopes and instruments. An opportunity will be provided for additional study as a supplement to the lecture course. Occasional evening observing sessions are required. (Formerly ASTR 5)
Transfer Credit: CSU

ASTR 102
INTRODUCTORY ASTRONOMY: STARS AND THE UNIVERSE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is a non-technical introduction to astronomy, with emphasis on stars,
Written estimates, body and fender judgment include the basic estimating process, hand-to pre-accident condition. Areas of training required to restore minor-damaged vehicles itemizing cost of labor, materials, and parts hand-written and/or computerized estimates collision damage. Students will complete systems as they relate to the estimating of credit or "C" or higher, or appropriate work experience. This course increases the marketable skills for the automotive refinisher in the trade. It includes color and texture matching, toning and tinting, use of automotive toners from scratch mixing to the use of tintometers, blending techniques, and paint chemistry. It includes compatibility and trouble shooting of materials. Appropriate safety related instructions will be included in each segment. This course may be taken for a maximum of 9 units. (Formerly AB 33.1)

AB 42 (Not degree applicable)
COLLISION REPAIR V 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AB 54 or equivalent with a grade of Credit or "C" or higher.
This course emphasizes frame and structural repair. Instruction will include: the replacement of major body members and panels, removal and replacement of major power train supports; applied measuring, gauging and analysis of major structural damage. Also gauging and measuring of strut and strut towers as well as alignment of these members will be included. Appropriate safety related instructions will be included in each segment. This course may be taken for a maximum of 10 units.

AB 45 (Not degree applicable)
LETTERING, STRIPING AND DESIGN 2 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
This course is designed to instruct the student in the arts of lettering, design, and pin striping. Students will be working with lines, colors, and comparison/contrast concepts to create special effects on commercial and passenger vehicles using a wide range of different materials. This course may be taken for a maximum of 4 units. (Formerly AB 69.3)

AB 51
COLLISION REPAIR I 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: None.
This course will cover the basic aspects of automotive collision repair trade. Major emphasis will be placed on orienting the student to specific welding procedures used in the automotive trade, basic use of power and hand tools including safety, use of fillers as well as straightening techniques, and discussion on automobile design, nomenclature and damage analysis. Appropriate safety related instructions will be included in each segment. (Formerly AB 11)

AB 52
COLLISION REPAIR II 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AB 51 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course is part of an instructional package for the student who wishes further knowledge of automotive collision repair. It introduces the student to unitized and space-frame construction, high strength steel components, chassis design, sheet metal straightening techniques, alignment, and installation of body parts. Also included is safety related to electrical problems, introduction of plastic components and continued welding and metallurgical experience. Appropriate safety related instructions will be included in each segment. This course may be taken for a maximum of 10 units. (Formerly AB 21)

AB 53
COLLISION REPAIR III 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AB 52 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
This course is an introduction to wheel alignment, suspension systems, and power train problems related to automotive collision including frame straightening systems, measurement and gauging for damage, cooling and electrical components, and continued welding and metallurgical experience. Appropriate safety related instructions will be included in each segment. This course may be taken for a maximum of 10 units. (Formerly AB 31.1)
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AB 54
COLLISION REPAIR IV 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AB 53 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
This course increases skills and knowledge to update the student in areas of his/her choice. It emphasizes refinishing of plastics, composite components, metal finishing, complex frame and structural repair, and continued welding. Appropriate safety related instructions will be included in each segment. This course may be taken for a maximum of 10 units. (Formerly AB 41)

AB 56
AUTOMOTIVE WELDING 2 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
This course is designed to increase skill and knowledge as well as update the student in areas of his/her choice. This course will emphasize refinishing and plastic techniques, metal finishing, continued frame and structural repair, and continued welding. Appropriate safety related instructions will be included in each segment. This course may be taken for a maximum of 20 units. (Formerly AB 35.1)

AB 57
ADVANCED AUTOMOTIVE WELDING 2 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: AB 56 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
This course is designed to increase skill and knowledge as well as update the student in areas of his/her choice. This course will emphasize refinishing and plastic techniques, metal finishing, continued frame and structural repair, and continued welding. Appropriate safety related instructions will be included in each segment. This course may be taken for a maximum of 20 units. (Formerly AB 49)

AB 61
AUTOMOTIVE REFINISHING I 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AB 51 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
This course is designed to introduce the student to a variety of refinishing techniques and materials. This course will emphasize refinishing and plastic techniques, metal finishing, continued frame and structural repair, and continued welding. Appropriate safety related instructions will be included in each segment. This course may be taken for a maximum of 10 units. (Formerly AB 25)

AB 62
AUTOMOTIVE REFINISHING II 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AB 61 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
This course is designed to introduce the student to a variety of refinishing techniques and materials. This course will emphasize refinishing and plastic techniques, metal finishing, continued frame and structural repair, and continued welding. Appropriate safety related instructions will be included in each segment. This course may be taken for a maximum of 10 units. (Formerly AB 25)

AB 63
PRODUCTION AUTOMOTIVE REFINISHING III 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AB 62 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None. Recommendation: None.
In this course students learn to specialize in simultaneous refinishing of multiple vehicles, including small dent repair, color matching and blending, overall refinishing, finish analysis, problem solving, vehicle detailing, using the most up-to-date high-volume techniques and materials. Areas covered include repair of minor body dings, prep and mixing of colors, and masking and painting three separate vehicles of varying models, colors, and types. This course provides students with hands-on techniques for increasing the number of vehicles processed in the automotive refinishing environment. Approved safety instructions are included in each segment. This course may be taken for a maximum of 10 units. (Formerly AB 35)

AB 70
COLLISION REPAIR SPECIALTY-A 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AB 51, AB 52, and AB 53 or equivalent courses with grades of Credit or “C” or higher, or appropriate work experience. AB 54 may be substituted for AB 53. This course increases skills and knowledge to update the student in areas of his/her choice. It emphasizes refinishing of plastics, composite components, metal finishing, complex frame and structural repair, and continued welding. Appropriate safety related instructions will be included in each segment. This course may be taken for a maximum of 15 units. (Formerly AB 48)

AB 71
COLLISION REPAIR SPECIALTY-B 10 UNITS
Class hours: 8 lecture/8 lab
Prerequisite: Fifteen units of auto collision repair or equivalent with grades of Credit or “C” or higher.
This course is designed to increase skill and knowledge as well as update the student in areas of his/her choice. This course will emphasize refinishing and plastic techniques, metal finishing, continued frame and structural repair, and continued welding. Appropriate safety related instructions will be included in each segment. This course may be taken for a maximum of 20 units. (Formerly AB 49)

AB 72
AUTO BODY MANAGEMENT SPECIALTY 3 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: Nine units of collision repair estimating and/or management or equivalent with grades of Credit or “C” or higher, or appropriate work experience.
Corequisite: None. Recommendation: None.
This course increases skills and knowledge in collision repair estimating, management, and customer relations for students considering a career in the auto body repair industry. It includes computerized automotive damage estimating, shop management, customer relations, and communications. Appropriate safety-related instructions are included in each segment. This course may be taken for a maximum of 12 units. (Formerly AB 49.1)
This course extends the students skills in effective collision damage estimating. The students will demonstrate the wide range of skills needed to effectively inspect major damaged vehicles, determine the extent of damage and indicate the best method of repair. Students will demonstrate their skills in handwritten and computerized estimates, itemizing the cost of labor, materials, and parts required to restore the vehicle to its pre-accident condition. Areas of training include computerized estimating procedures, automotive industry standards, rules and regulations, identification of job functions, and methods of determining levels of customer service (CSI). Additional training is provided in the area of process improvement and time management. Electronic estimating skills will be developed. This course may be taken for a maximum of 6 units. (Formerly AB 34.1)

**AB 83**
**COMPUTER ESTIMATING SPECIALTY 1.5 UNITS**
Class hours: 3 lecture/1 lab (9 weeks)
Prerequisite: AB 82 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
The focus of this course is for students to become proficient in one specific automotive damage-estimating program. Students will learn to properly identify vehicles, components and systems, and to select and input the appropriate replacement parts and labor costs into an estimate within the computer system. Topics included in this course are development of customer and insurance company profiles, and the generation of supplemental damage reports as currently used in the collision repair industry. The processes and methods used within the estimating program will be reviewed extensively. This course may be taken for a maximum of 6 units. (Formerly AB 34.2)

**AB 85**
**COLLISION REPAIR MANAGEMENT 3 UNITS**
Class hours: 2 1/2 lecture/1 1/2 lab
Prerequisite: None.
Recommendation: None.
This course expands abilities in effective management and operation of automotive collision repair facilities. The course includes presentation of the wide range of skills required to effectively direct, manage and promote a repair facility. Areas of training include rules and regulations related to the automotive repair industry, job-costing, equipment and material procurement, facility cost analysis, safety, employee and right-to-know issues, warranties, customer satisfaction, licensing and certification, and consolidation and franchise body shop operations. This course may be taken for a maximum of 8 units. (Formerly AB 53)

Transfer Credit: CSU
AUTOMOTIVE MECHANICAL REPAIR TECHNOLOGY
(Technology Division)

AUTO 1
ENGINE MAINTENANCE 0 UNIT
Class hours: 5 lecture/1 lab (3 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a fundamental class in automotive engines, dealing with maintenance of the modern automobile. Emphasis is on the elementary operating principles and beginning skill development. This three-week section is designed to allow students to become familiar with automotive engines and enter the work environment with basic skills. (Formerly AUTO 1.1)

AUTO 2
FUEL SYSTEMS 0 UNIT
Class hours: 5 lecture/1 lab (3 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a fundamental class in automotive fuel systems, dealing with maintenance of the modern automobile. Emphasis is on the elementary operating principles and beginning skill development. This three-week section is designed to allow students to become familiar with automotive fuel systems and enter the work environment with basic skills. (Formerly AUTO 1.2)

AUTO 3
LUBRICATION AND COOLING 0 UNIT
Class hours: 5 lecture/1 lab (3 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a fundamental class in automotive lubrication and cooling systems, dealing with maintenance of the modern automobile. Emphasis is on the elementary operating principles and beginning skill development. This three-week section is designed to allow students to become familiar with automotive lubrication and cooling systems and enter the work environment with basic skills. (Formerly AUTO 1.3)

AUTO 4
ELECTRICAL SYSTEMS 0 UNIT
Class hours: 5 lecture/1 lab (3 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a fundamental class in automotive electrical systems, dealing with maintenance of the modern automobile. Emphasis is on the elementary operating principles and beginning skill development. This three-week section is designed to allow students to become familiar with automotive electrical systems work environment with basic skills. (Formerly AUTO 1.4)

AUTO 5
BRAKES AND SUSPENSION 0 UNIT
Class hours: 5 lecture/1 lab (3 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a fundamental class in automotive brake and suspension systems, dealing with maintenance of the modern automobile. Emphasis is on the elementary operating principles and beginning skill development. This three-week section is designed to allow students to become familiar with automotive brake and suspension systems and enter the work environment with basic skills. (Formerly AUTO 1.5)

AUTO 6
TRANSMISSION AND DRIVE TRAIN 0 UNIT
Class hours: 5 lecture/1 lab (3 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a fundamental class in automotive transmission and drive train systems, dealing with maintenance of the modern automobile. Emphasis is on the elementary operating principles and beginning skill development. This three-week section is designed to allow students to become familiar with automotive transmission and drive train systems and enter the work environment with basic skills. (Formerly AUTO 1.6)

AUTO 8
FORD ELECTRONIC ENGINE CONTROLS EEC 3 & 4 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
A theory/practical course in the operation and diagnosing of Ford electronic engine controls, including driveability problem areas such as electronic ignition, feedback carburetion, onboard diagnostic systems, and electronic fuel injection. (Formerly AUTO 50)

AUTO 9
CHRYSLER ELECTRONIC FUEL INJECTION 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
A theory/practical course in the operation and diagnosing of Chrysler electronic engine controls, including driveability problem areas such as electronic ignition, feedback carburetion, onboard diagnostic systems, and electronic fuel injection. (Formerly AUTO 51)

AUTO 10
GENERAL MOTORS FUEL INJECTION 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
A theory/practical course in the operation and diagnosing of General Motors electronic engine controls, including driveability problem areas such as electronic ignition, feedback carburetion, onboard diagnostic systems, and electronic fuel injection. (Formerly AUTO 52)

AUTO 11
FOUR WHEEL ALIGNMENT 1 UNIT
Class hours: 1 lecture/demonstration
Prerequisite: None.
Theory/practical course on the principles of four wheel alignment. Computerized equipment will be used to demonstrate advanced shop procedures. (Formerly AUTO 53)

AUTO 12
GENERAL MOTORS CLIMATE CONTROL 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
A theory/practical course in the operation and diagnosis of General Motors Control Systems; trouble shooting, testing and repair techniques will be included. (Formerly AUTO 54)

AUTO 13
SPECIALIZED ELECTRONICS TRAINING 2.5 UNITS
Class hours: 2.25 lecture/2.25 lab
Prerequisite: None.
This course is a study of the principles of automotive electronics to include fundamentals, circuits, meter use, repair, and microprocessors. (Formerly AUTO 56)

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
AUTO 14 (Not degree applicable)
IMPORT FUEL INJECTION SYSTEMS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
A theory/practical course in the operation and diagnosing of Nissan, Toyota, and Bosch electronic engine controls, including driveability problem areas such as electronic ignition, feedback carburetion, onboard diagnostic systems, and electronic fuel injection.
(Formerly AUTO 69. 14/AUTO 81)

AUTO 50
INTRODUCTION TO AUTOMOTIVE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This introductory course deals with the basic systems of the modern automobile with emphasis on operating principles. Major areas of instruction will include electrical, engine, transmission, brake and accessory systems. The course is designed as an entry level automotive offering so students may survey the automotive service industry.
(Formerly AUTO 10)

AUTO 51
AUTOMOTIVE AIR CONDITIONING 4 UNITS
Class hours: 10 lecture/10 lab (6 weeks)
Prerequisite: AUTO 231 or equivalent with a grade of Credit or "C" or higher.
This course is a study of the principles of automotive air conditioning systems. The tools, skills, and processes necessary to perform the most common and essential air conditioning service procedures are studied and demonstrated in the shop. All instruction will be done on a single manufacturer's unit.
(Formerly AUTO 18. 1)

AUTO 52
AUTOMOTIVE PRODUCT ANALYSIS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is one in a series of GM PASS courses designed to bring the student to an entry-level position as a sales consultant within the General Motors dealership organization. This course develops product knowledge and consumer benefit from a product, financing and sales practices perspective. Emphasis is on GM automobile product line mix and competitive advantages. This course is designed to enhance personal skills in marketing and selling within the GM dealership sales department organization.
(Formerly AUTO 69. 14/AUTO 81)

AUTO 53
AUTOMOTIVE GM/ADVANCED CONSULTATIVE SELLING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: AUTO 73/74 or equivalent student internship with GM dealership, and BA 121 or equivalent with grades of Credit or "C" or higher.
This course is one in a series of GM PASS courses designed to bring the student to an entry-level position as a sales consultant within the General Motors dealership organization. It introduces the participants to the advanced skills necessary to begin selling automobiles through more pro-active customer-oriented sales efforts. Emphasis is placed on the development and practice of advanced professional sales techniques in the area of consultative value selling.
(Formerly AUTO 69. 15/AUTO 82)

AUTO 54
INTRODUCTION TO ELECTRIC VEHICLES 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: None.
Corequisite: None.
This course introduces the student to the world of Electric Vehicle Conversions. Students will be instructed with alternatives to gasoline powered vehicular travel and to the specific advantages of Electric Powered automobiles. Topics to be included are the process of conversion of a gas-powered vehicle to electric power, including the testing, assembly, operation and maintenance of EV's, the disassembly and re-assembly of an EV, introduction to battery and charging systems, optional power accessories and EV drive systems. Appropriate safety related instructions will be included in each segment. This course may be repeated for a total of 8 units.
(Formerly AB 69. 8/AUTO 91)

AUTO 73/74
AUTOMOTIVE MECHANICAL REPAIR OCCUPATIONAL WORK EXPERIENCE 3-4 UNITS
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Automotive Mechanical Repair work experience 73 or 20 hours of employment per week for Automotive Mechanical Repair work experience 74. The employment must be in a job related to the student's educational goal.
Corequisite: (1) Enrollment in the Automotive Mechanical Repair vocational program with 7 or more units including occupational work experience.
Work experience/career internship provides the opportunity for Automotive Mechanical Repair students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to the major and job skills must be completed on the job/training site. These courses may be taken for a maximum of 15-16 units.

AUTO 100
AUTOMOTIVE MAINTENANCE AND OPERATION 4 UNITS
Class hours: 3 lecture,3 lab
Prerequisite: None.
Basic class dealing with the selection and maintenance of the modern automobile. Emphasis is on the basic operating principles.
(Formerly IA 15/AUTO 1)
Transfer Credit: CSU
AUTO 120
AUTOMOTIVE LUBRICATION, BRAKES AND WHEEL ALIGNMENT 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 100 or equivalent with a grade of Credit or “C” or higher or employed technician.
This is a theoretical and practical course in basic alignment, brakes, steering, and suspension. It includes operating principles, component description, diagnosis, repair, and adjustments. Alignment instruction includes electronic four wheel alignment. This course may be taken for a maximum of 10 units. (Formerly AUTO 12)
Transfer Credit: CSU

AUTO 121
AUTOMOTIVE ALIGNMENT BRAKE AND SUSPENSION 6 UNITS
Class hours: 10 lecture/10 lab (9 weeks)
Prerequisite: None.
Corequisite: AUTO 73/74.
Recommendation: Concurrent enrollment in AUTO 73/74.
This is a theory/practical course in basic alignment, brakes, steering, and suspension on a single manufacturer’s car line. Included are operating principles, component description, diagnosis, repair, and service adjustments. This course is designed to accompany work experience in this trade. (Formerly AUTO 20.2/AUTO 12.1)
Transfer Credit: CSU

AUTO 130
AUTOMOTIVE ELECTRICITY 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 100 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
This is a theoretical and practical course in basic electricity and automotive electrical systems such as battery, starting, charging, and electronic ignition. Test equipment and computer systems will also be covered. (Formerly AUTO 13)
Transfer Credit: CSU

AUTO 131
AUTOMOTIVE ELECTRICITY 7 UNITS
Class hours: 12 lecture/8 lab (9 weeks)
Prerequisite: AUTO 121 or equivalent with a grade of Credit or “C” or higher.
Corequisite: AUTO 73/74.
This is a theory/practical course in basic electricity and automotive electrical systems, such as battery, starting, charging, and electronic ignition systems. The content will be presented on a single manufacturer’s product line. (Formerly AUTO 13.1)
Transfer Credit: CSU

AUTO 140
AUTOMOTIVE ENGINES 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 100 or equivalent with a grade of Credit or “C” or higher.
A theory/practical course in Automotive Engine repair to include operating principles and descriptions of all components. The major content will be on diagnosis and measurement. Complete disassembly and reassembly of engines will be accomplished. (Formerly AUTO 11/AUTO 14)
Transfer Credit: CSU

AUTO 141
AUTOMOTIVE ENGINES 4 UNITS
Class hours: 10 lecture/10 lab (6 weeks)
Prerequisite: AUTO 100 and AUTO 121 or equivalent with grades of Credit or “C” or higher.
Corequisite: AUTO 73/74.
Recommendation: None.
A theory/practical course in Automotive Engine repair to include operating principles and descriptions of all components. The major content will be on diagnosis and measurement. Complete disassembly and reassembly of engines will be accomplished. Course content will be presented on a single manufacturer’s engine. (Formerly AUTO 14.1)
Transfer Credit: CSU

AUTO 150
AUTOMOTIVE MACHINE SHOP I 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 100 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
This course is designed to teach students the basic operations used in the automotive machine shop. It concentrates on cylinder head, cylinder block, and piston and connecting rod assemblies. An overview of other related operations will be included. This course may be taken for a maximum of 10 units. (Formerly AUTO 15)
Transfer Credit: CSU

AUTO 160
AUTOMOTIVE POWER TRAIN 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 100 or equivalent with a grade of Credit or “C” or higher.
This course is a study of the principles of the automotive power systems—clutch, manual and automatic transmission, transaxes, transfer cases, drive line, drive-axle, differential, and all wheel drive systems and service, including diagnosis and service. This course may be taken for a maximum of 10 units. (Formerly AUTO 16)
Transfer Credit: CSU

AUTO 170
EMISSION CONTROL SYSTEMS - 1993 STANDARDS 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 100 or equivalent with a grade of Credit or “C” or higher.
One year automotive experience and/or automotive education credits equaling nine semester (14 quarter units) or 180 hours at a trade school. The course work must include, but is not limited to, the following automotive areas: basic electricity, fuel systems, and engine performance (tune-up).
This course gives the advanced automotive student exposure to the current methods, devices, and manufacturers of automotive emission control systems. It provides the student with an opportunity to obtain a Class “A” Installer’s License. This course may be taken for a maximum of 10 units. (Formerly AUTO 17)
Transfer Credit: CSU

AUTO 180
AUTOMOTIVE AIR CONDITIONING 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: AUTO 130 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
This theory and shop course is designed to teach basic automotive air conditioning tools, skills and processes associated with the modern automobile, related information for developing knowledge and skills necessary to perform the most common and essential air conditioning service procedures. This course may be taken for a maximum of 8 units. (Formerly AUTO 18)
Transfer Credit: CSU

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All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.

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AUTO 190
AUTOMOTIVE MANAGEMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: AUTO 100 or equivalent with a grade of Credit or “C” or higher.
A course designed to furnish the student with knowledge, experience and practice in supervision and management of an automotive repair facility. Emphasis is placed on customer relations, scheduling, cost estimating, efficient and effective use of time and space. (Formerly AUTO 19)
Transfer Credit: CSU

AUTO 192
INTRODUCTION TO ALTERNATIVE FUELS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to the role, function, and practical applications of Compressed Natural Gas (CNG) as an alternative fuel for the internal combustion engine. Propane, methanol, and hydrogen are also discussed. (Formerly AUTO 19.2)
Transfer Credit: CSU

AUTO 223
AUTOMOTIVE BODY ELECTRICAL 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: AUTO 130 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
This is a theory/practical course in the automotive body electrical system, covering all classes of electrical components and power accessories in the area of diagnosing and component repairs. (Formerly AUTO 23)
Transfer Credit: CSU

AUTO 224
HIGH PERFORMANCE ENGINES 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 140 or AUTO 141 or equivalent with a grade of Credit or “C” or higher.
This is an advanced course in automotive engine design and high performance engine preparation. Complete disassembly and reassembly of engines will be accomplished. This course may be taken for a maximum of 10 units. (Formerly AUTO 24)
Transfer Credit: CSU

AUTO 225
ADVANCED AUTOMOTIVE MACHINE SHOP II 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 150 or equivalent with a grade of Credit or “C” or higher.
This course is designed to familiarize the student with the more advanced machine operations used in automotive shop and mechanical repair industries. It will concentrate on advanced honing techniques, and welding and grinding crankshafts and camshafts. This course may be taken for a maximum of 10 units. (Formerly AUTO 25)
Transfer Credit: CSU

AUTO 226
AUTOMOTIVE AUTOMATIC TRANSMISSIONS 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 100 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
This course is focused on the principles of automatic transmissions and transaxles. Procedures for diagnosing troubles, adjusting, and overhauling the automatic transmission and transaxle are studied and applied in the shop. This course may be taken for a maximum of 10 units. (Formerly AUTO 26)
Transfer Credit: CSU

AUTO 231
AUTOMOTIVE DIAGNOSTIC ENGINE PERFORMANCE 6 UNITS
Class hours: 10 lecture/10 lab (9 weeks)
Prerequisite: AUTO 131 or equivalent with a grade of Credit or “C” or higher.
Corequisite: AUTO 73/74.
This is a theory/practical course in diagnosing automotive driveability problems. Areas such as ignition, carburetion, automotive computers, electronic engine controls and on-board diagnostic systems will be included. This course will be presented using a single manufacturer’s product line. (Formerly AUTO 43.1)
Transfer Credit: CSU

AUTO 233
ELECTRONIC FUEL MANAGEMENT SYSTEMS 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: AUTO 130 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
This is a theory/practical course pertaining to the operation, individual components, and the overall logic by which fuel systems component work together. Feedback carburetion, fuel injection and electronic controls will be included. This course may be taken for a maximum of 10 units. (Formerly AUTO 33)
Transfer Credit: CSU

AUTO 243
DIAGNOSTIC ENGINE PERFORMANCE 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: AUTO 225 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
This is a theory/practical course in diagnosing automotive driveability problems. Areas such as ignition, carburetion, automotive computers, electronic engine controls and on-board diagnostic systems will be included. This course may be taken for a maximum of 8 units. (Formerly AUTO 43)
Transfer Credit: CSU

AUTO 245L
AUTOMOTIVE SPECIALTY 2 UNITS
Class hours: 6 lab
Prerequisite: AUTO 225 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
This course is designed to further increase the skill and knowledge of the student in areas of his/her choice, working to trade standards. This course may be taken for a maximum of 6 units. (Formerly AUTO 45)
Transfer Credit: CSU

AUTO 260
AUTOMOTIVE GM/CORPORATE TRENDS AND CAREERS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is the introductory course in the General Motors Professional Automotive Sales and Service Certificate Program (GM PASS). It provides students interested in the GM PASS certificate program with a detailed overview of General Motors, the company history, each of its six divisions, and their respective products. General Motors market positioning, product philosophy, advertising themes, and other topics will be covered. (Formerly AUTO 69.13/AUTO 80)
Transfer Credit: CSU

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
BIOLOGY

(Science/Engineering/Math Division)

Biol 100
NATURAL HISTORY OF
SO. CALIFORNIA 1 UNIT
(Also listed as GEOL 100)
Class hours: Total of 9 hours lecture with the minimum equivalent of 4 one-day field trips.
Prerequisite: None.
This is a field trip and seminar class in Biology and Geology of selected areas in So. California. Minerals, geology, landforms, plants, animals, ecology, human use, and recreation value will be studied. This course may be taken for a maximum of 2 units.
(Formerly BIOL 16)
Transfer Credit: CSU

Biol 105
MAN AND ENVIRONMENT 3 UNITS
Class hours: 3 lecture
Recommendation: Satisfactory completion of the English Placement Process for ENGL 100 clearance or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
This course is designed to help both science and nonscience majors to develop a better understanding of some of the important environmental problems facing mankind. The nature and implications of subjects such as loss of genetic variability, pollution problems, overpopulation, and the use and abuse of natural resources, will be studied. There will be an emphasis on the interrelatedness of these problems and how an understanding of environmental principles can help us to live on this planet more intelligently and more successfully.
(Formerly BIOL 1)
Transfer Credit: CSU; UC

Biol 110
CALIFORNIA ANIMALS
AND PLANTS 3 UNITS
Class hours: 2 lecture, 3 lab or field work.
Recommendation: Satisfactory completion of the English Placement Process for ENGL 100 clearance or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
The common plants and animals of California are studied with emphasis upon those local forms which can be readily collected or observed. The lecture is designed to familiarize the student with the life history and identification of local species of plants and animals and to aid in the understanding of the relationship of these organisms to their environment. The laboratory and field work emphasize ecological principles and taxonomic identification. (Formerly BIOL 12)
Transfer Credit: CSU; UC

Biol 115
MARINE BIOLOGY 3 UNITS
Class hours: 2 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This introductory course in marine biology is concerned with the adaptations, ecological relationships, economic importance, and identification of marine animals and plants. Emphasis is on the intertidal and offshore communities of California with frequent field trips to observe live specimens and study the marine environment.
(Formerly BIOL 90)
Transfer Credit: CSU; UC

Biol 120
INTRODUCTION TO BIOLOGICAL
SCIENCE 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course is designed for non-biological science majors. It covers basic principles of life science, including cellular biology, the plant and animal kingdoms, ecology, genetics, and evolution. Emphasis is also placed on human biology as it relates to everyday living.
(Formerly BIOL 10)
Transfer Credit: CSU; UC

Biol 180L
LIFE SCIENCE PREPARATIONS 1 UNIT
Class hours: 3 lab
Prerequisite: BIOL 120 or equivalent with a grade of Credit or “C” or higher.
This course is designed for pre-teaching, life science majors. The student will learn the use and care of laboratory apparatus through actual experience in the classroom. The student will assist the instructor in the laboratory by performing such jobs as helping to prepare demonstrations, designing displays, and aiding individuals in the class. This course may be taken for a maximum of 2 units.
(Formerly BIOL 20.16)
Transfer Credit: CSU

BIOL 200
PRINCIPLES OF BIOLOGY 5 UNITS
Class hours: 3 lecture/2 quiz/4 lab
Prerequisite: CHEM 111 or equivalent with a grade of Credit or “C” or higher.
Biol 120 or ZOOL 120 or BOT 120 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None. Recommendation: None.
The course provides a basic survey of major groups of organisms (Kingdoms Monera, Protista, Plants, and Animals) within a context of unifying themes of evolution and ecology. Emphasis will be on structure and function or organisms with consideration given to phylogeny, taxonomy, adaptations, and interactions among organisms and their environment. Animal behavior and select vertebrate organ systems will be included. This course is designed as one semester of a two part series (coordinating with BIOL 201) for biology/medical majors.
(Formerly BIOL 5.1)
Transfer Credit: CSU; UC

BIOL 201
PRINCIPLES OF BIOLOGY 5 UNITS
Class hours: 3 lecture/2 quiz/4 lab
Prerequisite: CHEM 111 or equivalent with a grade of Credit or “C” or higher.
Biol 120 or ZOOL 120 or BOT 120 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None. Recommendation: None.
The principles of modern biology are discussed at the molecular, cellular, and organismic levels. Integrated within the course will be units on biochemistry, cell biology, origin of life, physiology of excitable tissues, genetics, molecular biology, biotechnology, immunology and developmental biology.
(Formerly BIOL 5.2)
Transfer Credit: CSU; UC

BIOL 250L
SPECIAL TOPICS IN BIOLOGY 1 UNIT
Class hours: 3 lab
Prerequisite: BIOL 120 or equivalent with a grade of Credit or “C” or higher.
This course is designed primarily for biological science majors. Individual research problems are explored using materials, equipment, and techniques not available to larger classes. This course may be taken for a maximum of 4 units.
(Formerly BIOL 30.16)
Transfer Credit: CSU; UC

Announcement of Courses

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.

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Announcement of Courses

BOTANY
(Science/Engineering/Math Division)

BOT 120
INTRODUCTION TO PLANT SCIENCE 4 UNITS
Class hours: 2 lecture/6 lab
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This is a basic course in plant biology designed not only to introduce the student to plants, but also to cover in some depth many of the facets of botany. Included will be plant cell biology and chemistry, a survey of major plant groups and their life cycles and characteristics, plant ecology and evolution. The course will help prepare students for a life science major, but it can also be taken to fulfill a lab science requirement in general education. Four field trips to examine local plant communities are part of the class. Students will also conduct a research project, prepare a scientific paper, and make a poster presentation based on their project. (Formerly BOT 10)
Transfer Credit: CSU; UC

BUSINESS ACCOUNTING
(Business Division)

BUSA 1T (Not degree applicable)
ACCOUNTING MICROCOMPUTER TUTORIAL 0 UNIT
Class hours: 2 lab
Prerequisite: None.
Corequisite: Enrollment in one or more Business Accounting (BUSA) or Business Finance (BUSF) course(s).
Recommendation: None.
This course is designed to provide individual tutorial instruction for students studying computerized accounting to facilitate and reinforce their ability to complete assigned computerized projects. (Formerly BUSA 98)

BUSA 2T (Not degree applicable)
ACCOUNTING TUTORIAL 0 UNIT
Class hours: 2 lab
Prerequisite: None.
Corequisite: BUSA 100, BUSA 101, or BUSA 102.
Recommendation: None.
This course is designed to provide individu-
BUSA 133
SPREADSHEET ACCOUNTING I 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSA 100 or equivalent with a grade of Credit or “C” or higher.
Corequisite: BUSA 1T.
This course is designed to teach students the application of accounting functions using the IBM compatible microcomputer and standard spreadsheet software. The accounting functions will include the development of financial statements, worksheets, special journals, payroll, bank reconciliations, and personal budgeting. (Formerly BUSA 33)
Transfer Credit: CSU

BUSA 170
BUSINESS ACCOUNTING OCCUPATIONAL WORK EXPERIENCE 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Business Accounting Occupational Work Experience, in a declared business major. One unit of Business Accounting Occupational Work Experience requires 60 non-paid hours or 75 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. This course may be taken for a maximum of 3 units. (Formerly BUSA 71)
Transfer Credit: CSU

BUSA 172
BUSINESS ACCOUNTING OCCUPATIONAL WORK EXPERIENCE 2 UNITS
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Business Accounting Occupational Work Experience, in a declared business major. Two units of Business Accounting Occupational Work Experience require 120 non-paid hours of work or 150 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. This course may be taken for a maximum of 6 units. (Formerly BUSA 73/74)
Transfer Credit: CSU

BUSA 201
INTERMEDIATE ACCOUNTING I 4 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: BUSA 102 or equivalent with a grade of Credit or “C” or higher.
This course covers the preparation of accounting statements and the study of accounting theory, utilizing the corporation form of business organizations. The emphasis of the course is on the sequential study of the various classifications and items of the balance sheet, including current and non-current assets. (Formerly BUSA 21)
Transfer Credit: CSU

BUSA 202
INTERMEDIATE ACCOUNTING II 4 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: BUSA 201 or equivalent with a grade of Credit or “C” or higher.
This course is a continuation of BUSA 201. It is an in-depth study of the balance sheet items relating to non-current assets, current liabilities, long-term liabilities, paid-in capital, and retained earnings. The course includes techniques of comparative analysis; interpretation and projection of financial statements, funds-flow and cash-flow reporting; and the study of A. P. B.’s
(Accounting Principles Board Bulletins) and F. A. S. B. 's (Financial Accounting Standard Board pronouncements). (Formerly BUSA 22)
Transfer Credit: CSU

**BUSA 240**
**COST ACCOUNTING**  4 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: BUSA 100 or BUSA 101 or equivalent with a grade of Credit or “C” or higher.
This course covers the various methods of cost accounting in use by manufacturing concerns. The details of accounting for materials, labor, and manufacturing overhead costs and expenses are presented. A study is made of the use of job order cost systems, process cost systems, and standard cost systems. The related areas of budgeting, break-even, and profit-volume analysis by management are included. A practice set is used. (Formerly BUSA 40)
Transfer Credit: CSU

**BUSA 241**
**MANAGERIAL ACCOUNTING**  4 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: BUSA 101 and BUSA 102 or equivalent with grades of Credit or “C” or higher.
This course introduces the managerial accounting concepts and principles that will enable the student to understand managerial accounting as it is applied in serving management needs. Topics include fundamentals of managerial accounting; managerial accounting concepts and systems; managerial accounting planning and control; accounting for decentralized operations; analyses for decision making; modern uses of managerial accounting. (Formerly BUSA 60)
Transfer Credit: CSU

**BUSA 250**
**INCOME TAX ACCOUNTING**  3 UNITS
Class hours: 3 lecture
Prerequisite: BUSA 100 or BUSA 101 or equivalent with a grade of Credit or “C” or higher.
This course is a practical study of the current Federal revenue acts as they relate to business and individual income tax procedures. It includes income inclusions and exclusions, exemptions, capital gains and losses, and business and individual deductions. This course reflects the tax laws of the Tax Reform Act of 1986, Public Law 99-514 of October 22, 1986. (Formerly BUSA 50.1)
Transfer Credit: CSU

**BUSA 251**
**ADVANCED INCOME TAX ACCOUNTING**  3 UNITS
Class hours: 3 lecture
Prerequisite: BUSA 250 or equivalent with a grade of Credit or “C” or higher.
This will be a continuation of BUSA 250 and will cover taxpayers other than individuals. It is designed to fill the needs of the student who desires a knowledge of the Federal Income Tax Implications of partnerships, corporations, tax option corporations and a general overview of estates, trusts, and gift taxation. This course reflects the tax laws of the Tax Reform Act of 1986, Public Law 99-514. (Formerly BUSA 51.1)
Transfer Credit: CSU

**BUSA 270**
**FUNDAMENTALS OF AUDITING**  3 UNITS
Class hours: 3 lecture
Prerequisite: BUSA 202 or equivalent with a grade of Credit or “C” or higher.
This course covers the process of examining and evaluating financial conditions and records. It is designed to provide a basis for an opinion concerning the reliability of the records, as evidenced by a written audit report. (Formerly BUSA 70)
Transfer Credit: CSU

**BUSA 280**
**ADVANCED ACCOUNTING**  3 UNITS
Class hours: 3 lecture
Prerequisite: BUSA 202 or equivalent with a grade of Credit or “C” or higher.
This class covers partnership and joint venture accounting, installment sales, consolidated financial statements, bankruptcy, accounting for trusts and estates, and government and non-profit accounting. (Formerly BUSA 80)
Transfer Credit: CSU

**BUSINESS ADMINISTRATION**
(Business Division)

**BA 50**
**BUSINESS MATH**  3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is a study of basic math as it relates to specific areas of business. Topics covered include percent, interest markup, discounting, stocks, annuities, consumer credit, loans, and bank reconciliations. (Formerly BA 15)

**BA 51**
**LEGAL ASPECTS OF MANAGEMENT**  3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course covers statutes, ordinances, rules, regulations, and orders that influence the operation of the industry being studied. The student will become familiar with various agencies operating in the areas which regulate labeling, environment, sanitation, advertising, weights and measures, pricing, and labor laws. It is designed for management majors. (Formerly BA 14)

**BA 52**
**FUNDAMENTALS OF IMPORTING AND EXPORTING**  3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a course in the basics of importing and exporting, including U. S. Customs service, customs brokers, duty rates, laws and regulations, currency exchange and letters of credit, storage, transportation, financing, terms of access, documentation, trade patterns by countries and commodities. (Formerly BA 6)
Transfer Credit: CSU

**BA 53**
**SMALL BUSINESS MANAGEMENT**  3 UNITS
Class hours: 3 lecture +1 hr. lab arr.
Prerequisite: None.
This course is designed to acquaint the student with the knowledge of principles, procedures, and opportunities in small business management. It will cover such topics as: self-evaluation, sources of capital and credit, franchising, distribution of goods, organizational structures, retailing, wholesaling and manufacturing. It will briefly cover the practical aspects of record keeping, planning, and controlling. (Formerly BA 41)

**BA 54**
**RETAIL DISPLAY**  3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course covers principles and methods of arranging windows, wall cases, floor cases, and open displays in a pleasing merchandising manner. It also covers the principles of design, the use of color, fashion coordination, and seasonal promotion as they relate to objectives of a retail establishment. (Formerly BA 61)
BA 55
INTRODUCTION TO LOGISTICS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course introduces the student to the principles and concepts of Logistic functions. Class lectures will cover the total product flow from the inbound raw materials to the outbound finished goods. Logistics activities to be discussed will be warehousing, transportation, inventory management and materials handling. (Formerly BA 63)

BA 56
MOTIVATION IN MANAGEMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to give the student a practical working knowledge of how to meet and solve many of the typical problems encountered in management. (Formerly BA 84)

BA 57
INVENTORY MANAGEMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course introduces the student to the principles and concepts of Inventory Management. Control of inventory stresses the importance of inventory as well as Inventory Management's relationship with other business functions. This course is designed to assist the student to pass the APICS (American Production and Inventory Control Society) certification examination. (Formerly BA 90)

BA 58
JUST-IN-TIME INVENTORY MANAGEMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course trains the student in the competitive process of Just-In-Time Inventory Management. New design criteria and facility layout are necessitated by Just-In-Time managed companies. This course prepares the student for the national certification examination conducted by APICS (American Production and Inventory Control Society). (Formerly BA 93)

BA 59
MATERIAL REQUIREMENTS PLANNING (MRP) 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed for comprehensive treatment of time-phased material requirements planning (MRP) in conjunction with computerized system techniques. Fundamental concepts and principles will be discussed as system elements and implementation alternatives. System inputs as well as outputs will be analyzed in light of inventory practices and control procedures. This course prepares the student for the national certification examination conducted by APICS (American Production and Inventory Control Society). (Formerly BA 94)

BA 60
MASTER SCHEDULING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course trains the student in the various techniques used by marketing and manufacturing to anticipate and control customers' demand against the company's build plan. This course prepares the student for the national certification examination conducted by APICS (American Production and Inventory Control Society). (Formerly BA 95)

BA 61
EVERYDAY LAW 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an introduction to the workings of the law to help the consumer better understand legal fundamentals and procedures. This course covers the legal profession and careers; the court system in the United States; and the areas of contracts, property rights, negligence, wills, business organizations, marriage and divorce, real estate, bankruptcy, and consumer protection. (Formerly BA 16)

BA 100
FUNDAMENTALS OF BUSINESS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course, designed for the beginning business student, will survey business principles, problems, practices, and procedures as they pertain to the societal challenges facing business and the economic challenges facing America. Business topics will be discussed, such as: the nature of business, ownership, recruitment and training of personnel, labor-management relations, production and distribution of goods, competition, profits, transportation, finance, managerial controls, government, and business relations. (Formerly BA 1)
Transfer Credit: CSU; UC

BA 101
INTERNATIONAL BUSINESS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is a survey of the factors, problems, and techniques involved in conducting business in the marketplace of the world and includes an overview of economic, political, geographic, and social factors that affect business transactions abroad. (Formerly BA 2)
Transfer Credit: CSU

BA 102
INTERNATIONAL BUSINESS LAW 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This is a survey course designed to acquaint the student with the legal aspects of international business law. It includes discussions regarding the responsibilities of states for the treatment of aliens and foreign businesses, multinational enterprises, foreign investments, importing and exporting, and money and banking. (Formerly BA 3)
Transfer Credit: CSU

BA 104
CULTURAL BRIDGES FOR BUSINESS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course introduces the students to various human characteristics and differences which exist in world-wide business environments. Communication styles, business ethics, mannersisms, numbers, space, and political and religious beliefs will be highlighted as to their importance in establishing viable and profitable contacts between individuals, cultures, and nations. (Formerly BA 4)
Transfer Credit: CSU

BA 105
PERSONNEL-POLICY AND PROCEDURES 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to provide the student with an in-depth probe of personnel from an administrative role. It includes the implementation of compliance with governmental regulations and laws. (Formerly BA 5)
Transfer Credit: CSU
BA 106
HUMAN RESOURCE MANAGEMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to acquaint the student with the principles and methods related to the effective utilization of personnel in the business organization. It will develop relations involved in recruitment, selection, placement, training, and supervision of employees. It will also include an introduction to the organized labor movement and current labor relations conditions. (Formerly BA 42)
Transfer Credit: CSU

BA 107
HUMAN RELATIONS IN BUSINESS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to aid future employees and employers to understand and utilize human relations concepts as they apply to the business environment. It will cover such areas as morale, personal efficiency, leadership, personality, motivation, and communication. (Formerly BA 31)
Transfer Credit: CSU

BA 108
LABOR MANAGEMENT RELATIONS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This is an introductory course in labor-management relations for supervisors and union shop stewards. It focuses on collective bargaining and the functions of management, unions and labor agreements. An indepth study will be made of the Labor Management Relations Act as amended, the National Labor Relations Board, and the Landrum-Griffin Act. Special attention is given to grievance procedures and arbitration cases. Negotiations of a collective bargaining agreement will be simulated. (Formerly BA 32)
Transfer Credit: CSU

BA 109
ADVERTISING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course covers the study of magazine, newspaper, radio, billboard, direct mail, and other special forms of publicity. Problems of space, type, copy, and the preparation of the complete layout are discussed. The principles of effective techniques with ample practice in the preparation of different types of advertisements will be covered. (Formerly BA 62)
Transfer Credit: CSU

BA 110
MANAGEMENT-BUSINESS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course will cover the principles and techniques in the management of business. It includes organizing, planning, controlling, directing, and the application of management principles to business organizations. (Formerly BA 40)
Transfer Credit: CSU

BA 111
BUSINESS LAW 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This is a course designed to introduce the student to the legal concepts of everyday business transactions. It will include discussions of legal rights, contracts, Universal Commercial Code (UCC) sales, negotiable instruments, and the structure of our judicial system. This course meets 54 hours of the legal requirement for Court Reporting Certification. (Formerly BA 11)
Transfer Credit: CSU; UC

BA 112
BUSINESS LAW 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This is a survey course designed to acquaint the student with the legal aspects of the business world. It will cover bailments, personal property, real property, agency, partnerships, corporations, wills, trusts, secured interests, and international law. (Formerly BA 12)
Transfer Credit: CSU; UC

BA 113
LEGAL ENVIRONMENT OF BUSINESS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This is a course that provides a meaningful portrayal of the operation and interaction of public and private law in the political and socio-economic environment. This is achieved by the study of the state and federal legal system and the laws that regulate the business organizations. (Formerly BA 13)
Transfer Credit: CSU; UC

BA 114
MARKETING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course covers problems and organizations of systems of distributing goods and services in our business world. It will include promotion through retail and wholesale parallels, consumer buyer habits, pricing, budgeting, transportation, warehousing, sources and uses of marketing information, and marketing of agricultural products. (Formerly BA 55)
Transfer Credit: CSU

BA 115
MANAGEMENT-BUSINESS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course will cover the principles and techniques in the management of business. It includes organizing, planning, controlling, directing, and the application of management principles to business organizations. (Formerly BA 40)
Transfer Credit: CSU

BA 116
INTRODUCTION TO SUPERVISION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
An introductory course focusing on the leadership skills and responsibilities required of supervisors in industry, business, and government agencies. Topics to be explored will include effective communication practices, training and evaluation of employees, management systems organization, and delegation of responsibilities. Class demonstration of leadership skills. Designed for in-service supervisors and pre-supervisor education. (Formerly BA 30)
Transfer Credit: CSU

BA 118
MANAGEMENT-RETAILING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to meet the needs of retail store managers and help prepare students for positions in retail store management. Topics covered: organizational structure, merchandise planning and control, sales promotion, pricing, and expense management. (Formerly BA 43)
Transfer Credit: CSU

BA 119
MANAGEMENT-SUPERMARKET 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to meet the needs of students in supermarket management by acquainting the student with the management functions of planning, organizing, staffing, directing, controlling, innovating, and representing as they apply to the supermarket. (Formerly BA 82)
Transfer Credit: CSU
Announcement of Courses

BA 120
MANAGEMENT—ACCOUNTING AND INTERNAL CONTROL 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
The accounting cycle will be introduced with emphasis on understanding financial records. Instruction will be given on the internal control of the industry being studied as well as an introduction to the analysis of the financial statements. (Formerly BA 81)
Transfer Credit: CSU

BA 121
SALES 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course covers opportunities in selling, development of desirable personality traits, methods of approach to prospective customers, the art of demonstrating goods, how to meet objections, and how to close the sale. (Formerly BA 50)
Transfer Credit: CSU

BA 123
FUNDAMENTALS OF RETAILING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to help the student develop an understanding of the problems, policies, and methods of merchandising as carried on in retail stores. Topics covered: careers in retailing, store layout, pricing goods, buying and receiving of merchandise and customer services. (Formerly BA 66)
Transfer Credit: CSU

BA 149
CURRENT MANAGEMENT THEORY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is an introduction to TQM (Total Quality Management) and other current management theories. The ideas of prominent management consultants will be reviewed, discussed, and analyzed. These theories will be compared as to how they can be applied. (Formerly BA 49)
Transfer Credit: CSU

BA 171
BUSINESS ADMINISTRATION WORK EXPERIENCE 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Business Administration Occupational Work Experience, in a declared business major. One unit of Business Administration Occupational Work Experience requires 60 non-paid hours of work or 75 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. This course may be taken for a maximum of 3 units. (Formerly BA 71)
Transfer Credit: CSU

BA 172
BUSINESS ADMINISTRATION OCCUPATIONAL WORK EXPERIENCE 2 UNITS
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Business Administration Occupational Work Experience, in a declared business major. Two units of Business Administration Occupational Work Experience require 120 non-paid hours of work or 150 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. These courses may be taken for a maximum of 15-16 units. (Formerly BA 72/73)
Transfer Credit: CSU

BA 173/174
BUSINESS ADMINISTRATION OCCUPATIONAL WORK EXPERIENCE 3-4 UNITS
Class hours: 1 hour/week coordination class.
Corequisite: Enrollment in 7 or more units, including Business Administration Occupational Work Experience, in a declared business major. Three units of Business Administration Occupational Work Experience require 180 non-paid hours of work or 225 paid hours of work per semester. Four units of Business Administration Occupational Work Experience require 240 non-paid hours of work or 300 paid hours of work per semester.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Second, third, and fourth semester students must secure departmental approval before enrolling. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. These courses may be taken for a maximum of 15-16 units. (Formerly BA 73/74)
Transfer Credit: CSU

BA 200
PRINCIPLES OF BANKING 3 UNITS
Class hours: 3 lecture.
Prerequisite: None.
This is an introductory course in commercial banking. It will deal with issues, subjects, and situations bankers encounter today. The topics covered will include negotiable instruments, deposits, payments, personnel, data handling, loan functions, bank services, and management of assets. (Formerly BA 20)
Transfer Credit: CSU

All courses on this page are Title V Associate Degree applicable credit courses unless otherwise noted.
BA 201
MONEY AND BANKING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This is an introductory course whose principal objective is to explain how our modern monetary institutions can best meet the needs of society. Topics covered are monetary theory, money creation, flow, controls, national policy, and international factors. The questions of how fiscal and monetary policies may help us solve our problems will be thoroughly examined. (Formerly BA 21)
Transfer Credit: CSU

BA 203
MANAGEMENT— DEPARTMENT OPERATIONS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to provide the student with an awareness and appreciation of staff-supported activities in an organization. The inter-reaction of the various departments and the flow work are analyzed for the purpose of developing a cooperative attitude among personnel of the various departments. (Formerly BA 83)
Transfer Credit: CSU

BA 206
PRODUCTION ACTIVITY CONTROL 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course trains the student in the commonly known and accepted manufacturing principles and practices of production controls. Production control objectives are developed for controlling input, output, measurement, and corrective actions. Scheduling techniques, records, routings, capacity, and load criteria as well as production releases and shortages are taught. This class prepares the student to pass the national certification examination conducted by APICS (American Production and Inventory Control Society). (Formerly BA 92)
Transfer Credit: CSU

BA 207
CAPACITY MANAGEMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course prepares the student to study the interrelationship of capacity management to the total production and inventory management systems of a company. Capacity management also addresses the problem of planning and controlling various capacities of the industrial firm. Capacity management is the process of determining the necessary resources (land, facilities, money, equipment, work force) to meet the production objectives of the firm. This class prepares the student to pass the national certification examination conducted by APICS (American Production and Inventory Control Society). (Formerly BA 92)
Transfer Credit: CSU

BA 208
BUSINESS ADMINISTRATIVE SUPPORT SYSTEMS
(Business Division)

BASS 31T (Not degree applicable)
INDIVIDUALIZED OFFICE SKILLS 0 UNIT
Class hours: 3 lab, open entry/open exit (17 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to improve the office skills of students independent of a lecture class. Work may be assigned in any or all of the following areas: word processing software, spreadsheet software, database software, graphics software, filing procedures, telephone communications, mail procedures, communication skills, listening skills, problem-solving skills, and customer service. (Formerly BASS 30)

BASS 31T (Not degree applicable)
WORD PROCESSING/ TUTORIAL 0 UNIT
Class hours: 1 lab
Prerequisite: None.
Corequisite: Enrollment in any word processing course.
This course is designed to facilitate and reinforce the learning of word processing functions, skills, and concepts through individualized and mediated instruction. It is open to any student enrolled in any word processing course. (Formerly BASS 31)

BASS 36T (Not degree applicable)
TYPING/ TUTORIAL 0 UNIT
Class hours: 1 lab
Prerequisite: None.
Corequisite: Enrollment in any Business Administrative Support Systems typing course.
Recommendation: None.
This course is designed to facilitate and reinforce the learning of typing skills and formatting theory through individualized instruction. (Formerly BASS 36)

BASS 50
ADVANCED WORDPERFECT FOR WINDOWS 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: BASS 108 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: Concurrent enrollment in BASS 3T.
This course offers students opportunities to build advanced skills, speed, and problem-solving abilities using WordPerfect for Windows software. (Formerly BASS 9)

BASS 60
TELEPHONE TECHNIQUES/ CUSTOMER SERVICE 1 UNIT
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course teaches the importance of effective telephone techniques in the business office and the correct manner of identifying customer wants and needs.

BASS 61
TYPING/ KEYBOARDING REVIEW 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: Typewriter keyboard skills and ability to type 25 wpm.
Recommendation: Concurrent enrollment in BASS 36T.
This course provides a review for those students who have had previous typing experience and wish to improve their typing and formatting skills. (This course can be taken in either a traditional or an on-line learning environment.) (Formerly BASS 32)

BASS 62
COMPUTER KEYBOARDING 1 UNIT
Class hours: 2 lecture/1 lab (9 weeks)
Prerequisite: None.
Recommendation: Concurrent enrollment in BASS 3T.
This course is designed for data processing

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and accounting students who do not know how to touch type; executives/managers/operators who use computer work stations; people who seek data entry positions; and users of personal home computers. Touch typewriting of alphabetic, numeric, and symbol keys on computers is emphasized. (This course can be taken in either a traditional or an on-line learning environment.) (Formerly BASS 2)

**BASS 70**
**MEDICAL MACHINE TRANSCRIPTION** 4 UNITS
Class hours: 4 lecture/2 lab
Prerequisite: BASS 131 or BASS 61, BASS 162, BCOM 46, and MA 161 or equivalent with grades of Credit or “C” or higher.
Corequisite: None.
Recommendation: Concurrent enrollment in BASS 3T and the ability to type 30 wpm.
This course prepares students in medical transcription common to a medical office. This course helps students to identify correct terminology, spell and define terms, and prepare appropriate forms. Reports are dictated in different accents, dialects, and gender voices, and are typed using appropriate word processing software to simulate real medical office environments. (Formerly BASS 65)

**BASS 71**
**COMPUTERS IN THE MEDICAL OFFICE** 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: MA 60, MA 161 and concurrent enrollment in BASS 3T.
This course prepares the medical/dental secretary or medical/dental office personnel to work as front office personnel in a health care practice. Students will learn to input patient information, schedule appointments, handle billing, handle insurance claims, and apply computer basics as they relate to the medical office. (Formerly BASS 67)

**BASS 80**
**PROCESSING LAW OFFICE DOCUMENTS** 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: BASS 108 or BL 57 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: Concurrent enrollment in BASS 3T.
This course introduces the student to the correct style for legal documents set by common usage or by court procedure. The specific formats required by law office documents will be emphasized. (Formerly BASS 17)

**BASS 81**
**LEGAL OFFICE PROCEDURES** 4 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: BASS 131 or equivalent with a grade of Credit or “C” or higher. Ability to type 30 wpm.
Recommendation: Concurrent enrollment in BASS 3T or BASS 36T.
This course is designed to prepare students for employment as legal secretaries. It emphasizes procedures, preparations of calendars, wills, and probates. Students will learn how to document telephone calls, maintain financial records, and perform other secretarial duties relevant to a legal office. This course meets 90 hours of the legal requirement for Court Reporting certification. (Formerly BASS 50)

**BASS 82**
**SPANISH LEGAL OFFICE TERMINOLOGY/VOCABULARY** 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: SPAN 112 or SPAN 201 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course is for the person who has a basic background in the Spanish language and who needs to learn specific field-related terminology and vocabulary for the legal offices that serve Spanish-speaking clients. (Formerly BASS 51)

**BASS 83**
**LEGAL OFFICE TERMINOLOGY/MACHINE TRANSCRIPTION** 4 UNITS
Class hours: 4 lecture/2 lab
Prerequisite: BASS 131 or BASS 61, BCOM 46, and BASS 162 or equivalent with grades of Credit or “C” or higher.
Corequisite: None.
Recommendation: Concurrent enrollment in BASS 3T and the ability to type 30 wpm.
This course is designed to teach the student legal terminology in order to be able to transcribe and key legal documents. The student will also learn the skills and knowledge necessary for the production of high-quality legal documents through the total transcription concept and for the development of proper machine dictation skills/procedures. The emphasis is on understanding, defining, and using over 900 terms in the legal context; skillful keyboarding; and accurate proofreading to produce quality, finished legal documents on electronic equipment/microcomputers. (Formerly BASS 64)

**BASS 108**
**WORDPERFECT FOR WINDOWS** 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Ability to type 30 wpm and concurrent enrollment in BASS 3T.
This course offers students opportunities to learn WordPerfect for Windows, which is an advanced word processing program. This course will further prepare students for a successful business career. (Formerly BASS 8).
Transfer Credit: CSU

**BASS 110**
**DESKTOP PUBLISHING—WORDPERFECT FOR WINDOWS** 1.5 UNITS
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: BASS 108 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: BASS 50 or equivalent with a grade of Credit or “C” or higher and concurrent enrollment in BASS 3T.
This course is designed to be used by students already familiar with word processing. Applications of key concepts are designed to develop skills in critical thinking, decision making, and creativity in planning, designing, or evaluating documents—letterheads, business cards, personal documents, flyers, brochures, promotional documents, charts, transparencies, presentation materials, newsletters, reports, manuals, and booklets. The visual appeal of business and personal documents will be enhanced with variable page layouts using standardized type and graphic design techniques along with WordPerfect templates. (This course is intended for the business office professional and not the graphic artist.) (Formerly BASS 10)
Transfer Credit: CSU

**BASS 112**
**MICROSOFT WORD FOR WINDOWS** 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Recommendation: Ability to type 30 wpm and concurrent enrollment in BASS 3T.
This course introduces the student to word processing functions on the IBM compatible personal computers using Microsoft Word for Windows software. Topics include basic Microsoft Word for Windows functions: entering/exiting, creating and saving a docu-
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BASS 120
WORD PROCESSING OFFICE SIMULATION 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: BASS 108 or BASS 112 or equivalent with a grade of Credit or "C" or higher.
Recommendation: Concurrent enrollment in BASS 3T.
This course reinforces previously learned word processing keyboarding and language skills. It introduces students to typical word processing procedures and activities in a realistic setting. It provides meaningful application materials for students who can operate word processing equipment.
(Formerly BASS 20)
Transfer Credit: CSU

BASS 131
BEGINNING TYPING/KEYBOARDING 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Recommendation: Concurrent enrollment in BASS 36T.
This is a basic course in typing designed to teach control of the keyboard by touch. The student will learn basic computer parts and terminology. (This course can be taken in either a traditional or an on-line learning environment.) (Formerly BASS 31)
Transfer Credit: CSU

BASS 133
INTERMEDIATE TYPING/KEYBOARDING 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: Ability to type 30 wpm; BASS 131 or BASS 61 or equivalent with a grade of Credit or "C" or higher.
Recommendation: Concurrent enrollment in BASS 36T.
In this course the student develops speed and control in typing as well as attains a working knowledge of business papers, facility in tabulation, and skill in production typing.
(Formerly BASS 33)
Transfer Credit: CSU

BASS 134
ADVANCED TYPWRITING 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: Ability to type 40 wpm; BASS 133 or equivalent with a grade of Credit or "C" or higher.
Recommendation: Concurrent enrollment in BASS 36T.
This advanced keyboarding class is taught on typewriting equipment. It teaches control of the keyboard by touch. The student will learn basic computer parts and terminology. This course can be taken in either a traditional or an on-line learning environment.
(Formerly BASS 34)
Transfer Credit: CSU

BASS 135
TYPOWRITING SPEED/CONTROL BUILDING 1 UNIT
Class hours: 2 lecture/1 lab
Prerequisite: Knowledge of keyboard and key strokes.
Recommendation: Concurrent enrollment in BASS 36T.
This is a nine-week course designed to provide intensive training and practice in typewriting speed and control. The students will work independently toward their respective goals. This course may be taken for a maximum of 3 units.
(Formerly BASS 35)
Transfer Credit: CSU

BASS 155
ADMINISTRATIVE SECRETARIAL PROCEDURES 4 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: BASS 131 or equivalent with a grade of Credit or "C" or higher. Ability to type 30 wpm.
Recommendation: Concurrent enrollment in BASS 3T or BASS 36T.
This course will emphasize the planning, organizing, problem solving, and human relation skills needed by secretaries at the administrative level. Employed or re-entry office support personnel may use this class for a refresher course or for professional purposes.
(Formerly BASS 55)
Transfer Credit: CSU

BASS 161
PRINCIPLES OF FILING 1 UNIT
Class hours: 2 lecture/1 lab
Prerequisite: None.
Recommendation: Concurrent enrollment in BASS 3T.
This is a computerized filing course that covers the principles of information processing, storage, and retrieval. Instruction is given in the rules of indexing and alphabetizing. A study will be made of geographic, numeric, subject, microfilming, and magnetic tape storage systems. Practice will be given in the processing of materials, filing, indexing, alphabetizing, coding, creating filenames and filename extensions for electronic files, and using DOS commands to store and retrieve electronic data to and from directories and subdirectories.
(Formerly BASS 61)
Transfer Credit: CSU

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### BASS 162
**BUSINESS SPELLING AND PROOFREADING SKILLS** 3 UNITS
- Class hours: 3 lecture
- Prerequisite: None.
- Recommendation: Concurrent enrollment in BASS 3T.

This course is designed to teach and reinforce accurate spelling, vocabulary, word usage, and proofreading skills with a distinct business orientation. It emphasizes the business context of these basic communications skills, which are needed for integration into other courses such as typewriting, machine transcription, shorthand, office procedures, and court reporting. This course meets 54 hours of the English requirement for Court Reporting Certification. (Formerly BASS 62)

Transfer Credit: CSU

### BASS 163
**MACHINE TRANSCRIPTION** 4 UNITS
- Class hours: 4 lecture/2 lab
- Prerequisite: BASS 131 or BASS 61, BCOM 46, and BASS 162 or equivalent courses with grades of Credit or "C" or higher. Ability to type 30 wpm.
- Recommendation: Concurrent enrollment in BASS 3T.

This is a course designed to teach the skills and knowledge necessary for the production of high-quality business documents through the total transcription concept (from handwritten copy, from machine transcription, or from shorthand dictation) and for the development of proper machine dictation skills/procedures. The emphasis is on the development of language arts skills, skillful keyboarding, and accurate proofreading in producing quality finished documents on electronic equipment/microcomputers. (Formerly BASS 63)

Transfer Credit: CSU

### BASS 173/174
**BUSINESS ADMINISTRATIVE SUPPORT SYSTEMS OCCUPATIONAL WORK EXPERIENCE** 3-4 UNITS
- Class hours: 1 hour/week coordination class.
- Corequisite: Enrollment in 7 or more units, including Business Administrative Support Systems Occupational Work Experience, in a declared business major. Three units of Business Administrative Support Systems Occupational Work Experience require 180 non-paid hours of work or 225 paid hours of work per semester. Four units of Business Administrative Support Systems Occupational Work Experience require 240 non-paid hours of work or 300 paid hours of work per semester.

Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers.

First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Second, third, and fourth semester students must secure departmental approval before enrolling. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. These courses may be taken for a maximum of 15-16 units. (Formerly BASS 73/74)

Transfer Credit: CSU

### BASS 161
**BUSINESS COMMUNICATIONS** 3 UNITS
- Class hours: 3 lecture
- Prerequisite: None.
- Recommendation: None.

This course is designed to develop those communication skills necessary to present effective written andoral business briefings and reports. It stresses the need to write and speak clearly, cohesively, concisely, and convincingly. Students will structure reports,
both orally and written, on topics about which they are knowledgeable. (Formerly BCOM 48)
Transfer Credit: CSU

BCOM 150
INTERNATIONAL BUSINESS COMMUNICATION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: BCOM 147 or ENGL 100 or equivalent with a grade of Credit or "C" or higher.
This course covers issues and skills that are crucial to effective intercultural communication in business. The most significant issues pertaining to cross-cultural interaction are examined. Practical guidelines and information on how to conduct negotiations across countries, as well as general do's and don'ts in international business are covered. International business writing styles, formats, and content for letters, reports, resumes, presentations, and other miscellaneous business documents are emphasized. (Formerly BCOM 50)
Transfer Credit: CSU

BCOM 151
COMPUTER APPLICATIONS/ BUSINESS DOCUMENTS 1 UNIT
Class hours: 2 lecture/1 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Concurrent enrollment in one of the following courses: BCOM 45, 147, 148, 150, or 152.
This course reinforces the critical writing skills involved in preparing effective business messages through hands-on experience in using the microcomputer. Students will use primary-computer-applications skills in word processing, spreadsheet, data management, graphics, and desktop publishing to solve communication problems in the production of typical business documents, including letters, memoranda, reports, resumes, and proposals. The applications in this course are carefully designed to correlate with the content coverage of primary business communication texts. (Formerly BCOM 51)
Transfer Credit: CSU

BCOM 152
JOB SEARCH IN THE BUSINESS FIELD 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Completion of or near completion of any certificate or AA degree in the Business Division.
This course prepares business students for the job search process. It emphasizes job search tools, techniques, and procedures for researching the labor market, health and image professional development; writing strategies for resumes, cover letters, and thank-you letters; and understanding human relations in job adjustment. This course may be taken for a maximum of 3 units. (Formerly BCOM 52)
Transfer Credit: CSU

BUSINESS COURT REPORTING/ COMPUTERIZED SHORTHAND
(Business Division)

BUSC 1T (Not degree applicable)
CAT TUTORIAL LAB 0 UNIT
Class hours: 1.5 lab
Prerequisite: BUSC 192 or equivalent with a grade of Credit or "C" or higher.
Corequisite: BUSC 129 or BUSC 149.
50 hours of court apprenticeship training.
This course assists development in transcription of the CSR Qualifying Exam for students preparing to take the State CSR Exam. Students must attend one hour minimum per week and are limited to a maximum of three hours per week. (Formerly BUSC 8)

BUSC 2T (Not degree applicable)
COMPUTER-AIDED TRANSCRIPTION LAB 0 UNIT
Class hours: 1 lab
Prerequisite: None.
Corequisite: Enrollment in any Business Court Reporting course.
Recommendation: None.
This required court reporting computer lab gives the students the opportunity to transcribe lessons and tests under supervision. Students must attend one hour per week multiplied by the number of court reporting courses in which the students are enrolled that require this lab. (Formerly BUSC 10)

BUSC 3T (Not degree applicable)
BUSINESS COURT REPORTING-TYPING LAB 0 UNIT
Class hours: 2 lab
Corequisite: One or more of the following courses: BUSC 57A, 57B, 114, 115, 116, 118, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 156, 157, 158, 159, 180, 181, or 192. This required court reporting typing lab gives the students the opportunity to transcribe lessons and tests under supervision. Students must attend two hours minimum per week multiplied by the number of court reporting courses in which the students are enrolled that require this lab. (Formerly BUSC 11)

BUSC 4T (Not degree applicable)
BUSINESS COURT REPORTING-TAPE LAB 0 UNIT
Class hours: 2 lab
Corequisite: One or more of the following courses: BUSC 114, 115, 116, 118, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 152, 153, 154, 155, 156, 157, 158, 159, 180, 181, or 192. This required court reporting tape lab gives the students an opportunity to increase speed and skill in practicing dictation from tapes and to gain exposure to increasingly difficult and specialized vocabularies. All Court Reporting students must enroll in this two-hour lab course. (Formerly BUSC 12)

BUSC 5T (Not degree applicable)
CSR QUALIFYING EXAM TRANSCRIPTION LAB 0 UNIT
Class hours: 1 hr. lab arr.
Prerequisite: Stenotype speed of 190 wpm, typing speed of 60 wpm, and completion of 50 hours of court apprenticeship training.
Corequisite: BUSC 129 or BUSC 149.
Recommendation: None.
This course assists development in transcription of the CSR Qualifying Exam for students preparing to take the State CSR Exam. Students must attend one hour minimum per week and are limited to a maximum of three hours per week. (Formerly BUSC 9)

BUSC 50
COMPUTER-AIDED PROOFREADING 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: BUSC 192 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: BUSC 57A and BUSC 142 or equivalent with grades of Credit or "C" or higher.
This course is designed to help students

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acquire the skills necessary to proofread accurately and correct computer transcripts of legal proceedings. Proofreading is an essential step in the production of all computer-aided transcripts, including court records and deposition transcripts. This course may be taken for a maximum of 4 units. (Formerly BUSC 92. 1)

**BUSC 57A**  
BEGINNING AURAL LANGUAGE  
SKILLS FOR COURT REPORTERS  3 UNITS  
Class hours:3 lecture  
Prerequisite:BUSC 140 and BUSC 141 or equivalent with grades of Credit or “C” or higher.  
Corequisite:BUSC 2T and BUSC 3T.  
Recommendation:BCOM 46 or equivalent with a grade of Credit or “C” or higher.  
This course emphasizes the grammar, punctuation, and capitalization of spoken language including vocabulary building with an emphasis on spelling, homophone differentiation, and stenotype machine outlines requisite for realtime computer transcription. (Formerly BUSC 17)

**BUSC 57B**  
ADVANCED AURAL LANGUAGE  
SKILLS FOR COURT REPORTERS  3 UNITS  
Class hours:3 lecture  
Prerequisite:BUSC 57A, BUSC 140, and BUSC 141 or equivalent with grades of Credit or “C” or higher.  
Corequisite:BUSC 2T and BUSC 3T.  
Recommendation:BCOM 46 or equivalent with a grade of Credit or “C” or higher.  
This course is a continuation of the study of the grammar, punctuation, and capitalization of spoken language with emphasis on further developing the students' ability to analyze and correctly apply rules of punctuation, word usage, and spelling to increasingly complex sentence structures. Additional emphasis will be placed on the creation of stenotype machine outlines requisite for realtime computer translation. (Formerly BUSC 17.1)

**BUSC 113**  
LEGAL TERMINOLOGY  3 UNITS  
Class hours:3 lecture/1 lab  
Prerequisite:BUSC 140 or equivalent with a grade of Credit or “C” or higher.  
This course is designed to familiarize the students with legal terminology, which will prepare the students to become proficient in recognizing, using, and spelling legal terminology. This course will help the students master unfamiliar keying patterns and enhance the development of computerized shorthand skills. (Formerly BUSC 13)  
Transfer Credit: CSU

**BUSC 114**  
MEDICAL TERMINOLOGY FOR MACHINE SHORTHAND  3 UNITS  
Class hours:3 lecture/2 lab  
Prerequisite:BUSC 142 or equivalent with a grade of Credit or “C” or higher.  
Recommendation: MA 161 or equivalent with a grade of Credit or “C” or higher.  
This course of study involves medical dictation at varying degrees of speed. Dictation will include words peculiar to the human anatomy, including the skeletal structure, and medical prefixes and suffixes. Definitions of these words, pronunciation, and accuracy of transcript will be stressed. Dictation will be given for examinations, diagnoses, laboratory investigations, patient case histories, operation reports, medical records, and autopsy reports. (Formerly BUSC 14)  
Transfer Credit: CSU

**BUSC 115**  
MEDICAL SHORTHAND FOR COURT REPORTERS  4 UNITS  
Class hours:4 lecture/1 lab  
Prerequisite:BUSC 114 and BUSC 143 or equivalent with grades of Credit or “C” or higher.  
Recommendation:MA 161 or equivalent with a grade of Credit or “C” or higher.  
This course is designed to reinforce medical terminology and to build shorthand speed from dictation on familiar medical transcripts and other related material including medications, nuclear medicine, laboratory and X-ray procedures. (Formerly BUSC 15)  
Transfer Credit: CSU

**BUSC 116**  
INTRODUCTION TO COURTROOM PROCEDURES  4 UNITS  
Class hours:4 lecture/2 lab  
Prerequisite:BUSC 144 or equivalent with a grade of Credit or “C” or higher.  
This course is designed to give an overall understanding of deposition procedures, ethics, reference techniques, management skills, and introduces the California Codes pertinent to depositions. This course provides an opportunity to develop management techniques and an understanding of professional practices. (Formerly BUSC 18)  
Transfer Credit: CSU

**BUSC 119A**  
BEGINNING COMPUTER-AIDED TRANSCRIPTION  2 UNITS  
Class hours:2 lecture/2 lab  
Prerequisite:BUSC 141 or equivalent with a grade of Credit or “C” or higher.  
Corequisite:BUSC 1T and BUSC 142 or equivalent.  
This course introduces students to the Computer-Aided Transcription (CAT) process. It includes some history of CAT and some computer terminology. Students receive instruction in basic English text entry and nontechnical dictionary building. Students will be required to have an electronic stenotype machine or purchase a Prowriter attachment for their stenotype machine to create personal dictionaries of approximately 20,000 words. This course may be taken for a maximum of 4 units. (Formerly BUSC 19.1)  
Transfer Credit: CSU

**BUSC 119B**  
INTERMEDIATE COMPUTER-AIDED TRANSCRIPTION  2 UNITS  
Class hours:2 lecture/2 lab  
Prerequisite:BUSC 119A or equivalent with a grade of Credit or “C” or higher.  
Corequisite:BUSC 1T and BUSC 143 or equivalent.  
This CAT course includes scoping, editing, transcribing, spell checking, formatting, and printing a document. Students use the Prowriter attachment or electronic stenotype machine to continue preparing their personal dictionaries on a disk. This course may be taken for a maximum of 6 units. (Formerly BUSC 19.2)  
Transfer Credit: CSU

**BUSC 119C**  
ADVANCED COMPUTER-AIDED TRANSCRIPTION  2 UNITS  
Class hours:2 lecture/2 lab  
Prerequisite:BUSC 119B or equivalent with a grade of Credit or “C” or higher.  
Corequisite:BUSC 1T and BUSC 144 or equivalent.  
This advanced CAT course integrates taking verbatim proceedings with the Prowriter attachment or an electronic stenotype
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machine, sending the notes to the computer, then scoping, editing, printing, and electronically filing the final document. This course may be taken for a maximum of 6 units. (Formerly BUSC 19.3)

Transfer Credit: CSU

BUSC 119D
BASIC CONCEPTS OF REALTIME 2 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: BUSC 119C or equivalent with a grade of Credit or “C” or higher.
Corequisite: BUSC 1T.
Recommendation: None.
This course introduces students to the principles of realtime writing for computer-aided transcription (CAT). It provides a complete plan for analyzing personal writing techniques, developing a consistent writing style, and implementing a step-by-step plan to reinforce realtime writing using the current court reporting CAT software system. This course may be taken for a maximum of 6 units. (Formerly BUSC 19.4)

Transfer Credit: CSU

BUSC 119E
COMPUTER-AIDED MEDICAL DICTIONARY BUILD 2 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: BUSC 114 and BUSC 119B or equivalent with grades of Credit or “C” or higher.
Corequisite: BUSC 1T.
Recommendation: MA 161 or equivalent with a grade of Credit or “C” or higher.
This course is for students proficient in computerized machine shorthand writing skills who are interested in a stenographic computer-aided medical transcribing career. It provides a systematic approach toward building a basic personal medical dictionary. The dictionary entries include Latin and Greek prefixes, roots, suffixes, and combining forms as well as medical terminology that will be created using a computer-aided transcription (CAT) software system. This course may be taken for a maximum of 6 units. (Formerly BUSC 19.5)

Transfer Credit: CSU

BUSC 119F
COMPUTER-AIDED LEGAL DICTIONARY BUILD 2 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: BUSC 119B or equivalent with a grade of Credit or “C” or higher.
Corequisite: BUSC 1T.
Recommendation: None.
This course is for students proficient in computerized machine shorthand writing skills who are interested in a career path in legal transcribing or court reporting. It provides a systematic approach toward building a basic legal computer-aided transcription (CAT) dictionary. Entries into the CAT dictionary include Latin and Greek prefixes, suffixes, roots, and combining forms of legal terminology used in various aspects of the legal system. This course may be taken for a maximum of 6 units. (Formerly BUSC 19.6)

Transfer Credit: CSU

BUSC 125
COMPUTERIZED SHORTHAND REALTIME PRACTICUM I (100-130 WPM) 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 119C and BUSC 143 or equivalents with grades of Credit or “C” or higher.
Corequisite: BUSC 1T and BUSC 2T.
Recommendation: BUSC 119D or equivalent with a grade of Credit or “C” or higher.
This course continues intensive sustained dictation to improve realtime writing and computer transcription ability. Latin and French words, Congressional Record, multiple-voice testimony, legal opinions, and expert opinion materials in realtime are included. This course may be taken for a maximum of 6 units. (Formerly BUSC 25)

Transfer Credit: CSU

BUSC 126
COMPUTERIZED SHORTHAND REALTIME PRACTICUM II (120-150 WPM) 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 119C and BUSC 144 or equivalents with grades of Credit or “C” or higher.
Corequisite: BUSC 1T and BUSC 2T.
Recommendation: BUSC 119D or equivalent with a grade of Credit or “C” or higher.
This course continues intensive sustained dictation to improve realtime writing and computer transcription ability. Latin and French words, Congressional Record, multiple-voice testimony, legal opinions, and expert opinion materials in realtime are included. This course may be taken for a maximum of 6 units. (Formerly BUSC 26)

Transfer Credit: CSU

BUSC 127
COMPUTERIZED SHORTHAND REALTIME PRACTICUM III (140-170 WPM) 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 119C and BUSC 145 or equivalents with grades of Credit or “C” or higher.
Corequisite: BUSC 1T and BUSC 2T.
Recommendation: BUSC 119D or equivalent with a grade of Credit or “C” or higher.
This course develops realtime stenotype techniques and speed through the use of sustained dictation consisting of Congressional Record, literary, jury charge, and multiple-voice testimony. This course may be taken for a maximum of 9 units. (Formerly BUSC 27)

Transfer Credit: CSU

BUSC 128
COMPUTERIZED SHORTHAND REALTIME PRACTICUM IV (160-190 WPM) 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 119C and BUSC 146 or equivalents with grades of Credit or “C” or higher.
Corequisite: BUSC 1T and BUSC 2T.
Recommendation: BUSC 119D or equivalent with a grade of Credit or “C” or higher.
This course develops realtime stenotype techniques and speed through the use of sustained dictation consisting of Congressional Record, literary, jury charge, and multiple-voice testimony. In addition, this course prepares advanced students for various state and city hearing reporter examinations and employment. This course may be taken for a maximum of 12 units. (Formerly BUSC 28)

Transfer Credit: CSU

BUSC 129
COMPUTERIZED SHORTHAND REALTIME PRACTICUM V (180-210 WPM) 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 119C and BUSC 147 or equivalents with grades of Credit or “C” or higher.
Corequisite: BUSC 1T and BUSC 2T.
Recommendation: BUSC 119D or equivalent with a grade of Credit or “C” or higher.
This course offers intensive sustained dictation to increase realtime capability and to prepare advanced students for the Certified Realtime Reporter (CRR) examination and various positions. Simulated courtroom proceedings will be used as a means to qualify for the State Boards. This course may be taken for a maximum of 12 units. (Formerly BUSC 29)

Transfer Credit: CSU

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
BUSC 130
COMPUTERIZED SHORTHAND REALTIME
PRACTICUM VI (190-225 WPM) 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 119C and BUSC 148 or equivalents with grades of Credit or "C" or higher.
Corequisite: BUSC 1T and BUSC 2T.
Recommendation: BUSC 119D. This course covers the basic theory of computer compatible shorthand and is designed for students who have some previous instruction. This course may be taken for a maximum of 6 units. (Formerly BUSC 41)
Transfer Credit: CSU

BUSC 142
INTERMEDIATE COMPUTERIZED
SHORTHAND 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 140 and BUSC 141 or equivalent with grades of Credit or "C" or higher. May be taken concurrently with BUSC 141 and BUSC 143.
Corequisite: BUSC 1T, BUSC 2T, BUSC 3T, BUSC 4T, and BUSC 119A.
Recommendation: Minimum typing speed of 40 wpm or enrollment in a typing class. This course provides basis for developing, refining, and improving machine skill and speed. Emphasis is placed on frequently used words and phrases, word families, number drills, legal terms, literary and business dictation, and two-voice question and answer testimony. This course may be taken for a maximum of 6 units. (Formerly BUSC 42)
Transfer Credit: CSU

BUSC 143
COMPUTERIZED SHORTHAND SPEED
BUILDING I 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 142 or equivalent with a grade of Credit or "C" or higher. May be taken concurrently with BUSC 142 and BUSC 144.
Corequisite: BUSC 1T, BUSC 2T, BUSC 3T, BUSC 4T, and BUSC 119B.
Recommendation: Minimum typing speed of 43 wpm or enrollment in a typing class. This course provides a continuing basis to further develop, refine, and improve machine shorthand skill and speed. In addition to the areas emphasized in previous classes, jury charge and multiple-voice colloquy are included. This course may be taken for a maximum of 6 units. (Formerly BUSC 43)
Transfer Credit: CSU

BUSC 144
COMPUTERIZED SHORTHAND SPEED
BUILDING II 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 143 or equivalent with a grade of Credit or "C" or higher. May be taken concurrently with BUSC 143 and BUSC 145.
Corequisite: BUSC 1T, BUSC 2T, BUSC 3T, BUSC 4T, and BUSC 119C.
Recommendation: Minimum typing speed of 47 wpm or enrollment in a typing class. This course continues intensive sustained dictation to increase machine shorthand speed and to improve transcription ability. Latin and French words, Congressional Record, multiple-voice testimony, legal opinions, and expert opinion materials are included. This course may be taken for a maximum of 6 units. (Formerly BUSC 44)
Transfer Credit: CSU

BUSC 145
COMPUTERIZED SHORTHAND SPEED
BUILDING III 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 144 or equivalent with a grade of Credit or "C" or higher. May be taken concurrently with BUSC 144 and BUSC 146.
Corequisite: BUSC 1T, BUSC 2T, BUSC 3T, BUSC 4T, and BUSC 119D.
Recommendation: Minimum typing speed of 50 wpm or enrollment in a typing class. This course continues intensive sustained dictation to increase machine shorthand speed and to improve transcription ability. Latin and French words, Congressional Record, multiple-voice testimony, Final Argument, Opening Statement, and Conference at the Bench broaden keying vocabulary. This course may be taken for a maximum of 9 units. (Formerly BUSC 45)
Transfer Credit: CSU

Announcement of Courses

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
BUSC 147
COMPUTERIZED SHORTHAND SPEED
BUILDING (160-190 wpm) 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 146 or equivalent with a grade of Credit or "C" or higher. May be taken concurrently with BUSC 146 and BUSC 148.
Corequisite: BUSC 2T, BUSC 3T, and BUSC 4T.
Recommendation: Minimum typing speed of 60 wpm or enrollment in a typing class. This course is designed to develop stenotype techniques and speed through the use of sustained dictation consisting of Congressional Record, literary, jury charge, and multiple-voice testimony. In addition, this course is designed to prepare advanced students for the CSR examination and various positions. Simulated courtroom proceedings will be used as a means to qualify for the State Boards. This course may be taken for a maximum of 12 units. (Formerly BUSC 47)
Transfer Credit: CSU

BUSC 148
COMPUTERIZED SHORTHAND SPEED
BUILDING (180-210 wpm) 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 147 or equivalent with a grade of Credit or "C" or higher. May be taken concurrently with BUSC 147 and BUSC 149.
Corequisite: BUSC 2T, BUSC 3T, BUSC 4T, and BUSC 143.
Recommendation: Minimum typing speed of 60 wpm or enrollment in a typing class. This course offers intensive sustained dictation to increase machine shorthand speeds and to prepare advanced students for the CSR examination and various positions. Simulated courtroom proceedings will be used as a means to qualify for the State Boards. This course may be taken for a maximum of 12 units. (Formerly BUSC 48)
Transfer Credit: CSU

BUSC 149
COMPUTERIZED SHORTHAND SPEED
BUILDING (190-225 wpm) 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: BUSC 148 or equivalent with a grade of Credit or "C" or higher. May be taken concurrently with BUSC 148.
Corequisite: BUSC 2T, BUSC 3T, and BUSC 4T.
Recommendation: Minimum typing speed of 60 wpm and completion of 50 hours of court apprenticeship.
This course is designed to offer intensive sustained dictation to increase endurance and speed. In addition, this course offers a comprehensive academic review in preparation for the Certified Shorthand Reporters and the National Court Reporters examinations. This course may be taken for a maximum of 12 units. (Formerly BUSC 49)
Transfer Credit: CSU

BUSC 152
INTRODUCTION TO JURY CHARGE
INTERMEDIATE COMPUTERIZED SHORTHAND 3 UNITS
Class hours: 6 lecture/12 lab (6 weeks)
Prerequisite: BUSC 140 and BUSC 141, or equivalents with grades of Credit or "C" or higher.
Corequisite: BUSC 2T and BUSC 4T.
Recommendation: Minimum typing speed of 40 wpm.
This short-term, intensive course is designed to introduce methodology of reporting and transcribing jury charge material and to develop punctuation skills, formatting techniques, and stenotype speed for this aspect of reporting. Sustained dictation consists of jury charge and two-voice testimony. This course develops proficiency in recording jury charge material at speeds ranging from 60-90 wpm. This course may be taken for a maximum of 6 units. (Formerly BUSC 52)
Transfer Credit: CSU

BUSC 153
MULTIPLE-VOICE COLLOQUII
INTERMEDIATE COMPUTERIZED SHORTHAND SPEED BUILDING I 3 UNITS
Class hours: 6 lecture/12 lab (6 weeks)
Prerequisite: Minimum stenotype speed of 70 wpm.
Corequisite: BUSC 2T and BUSC 4T.
Recommendation: Minimum typing speed of 43 wpm.
This short-term, intensive course promotes the development of speed, accuracy, and formatting techniques in reporting and transcribing multiple-voice colloquy. This course develops proficiency in recording colloquy at speeds ranging from 80-110 wpm. Sustained dictation consists of multiple-voice colloquy, jury charge, Congressional Record, and two-voice testimony. This course may be taken for a maximum of 9 units. (Formerly BUSC 55)
Transfer Credit: CSU

BUSC 154
INTRODUCTION TO CONGRESSIONAL RECORD
INTERMEDIATE COMPUTERIZED SHORTHAND SPEED BUILDING II 3 UNITS
Class hours: 6 lecture/12 lab (6 weeks)
Prerequisite: Minimum stenotype speed of 90 wpm.
Corequisite: BUSC 2T and BUSC 4T.
Recommendation: Minimum typing speed of 47 wpm.
This short-term, intensive course introduces methodology of reporting and transcribing Congressional Record material and develops punctuation skills, formatting techniques, and stenotype speed for this aspect of reporting. Sustained dictation consists of Congressional Record, jury charge, and two-voice testimony. This course develops proficiency in recording Congressional Record material at speeds ranging from 100-130 wpm. This course may be taken for a maximum of 6 units. (Formerly BUSC 54)
Transfer Credit: CSU

BUSC 155
MULTIPLE-VOICE COLLOQUII II
INTERMEDIATE COMPUTERIZED SHORTHAND SPEED BUILDING III 3 UNITS
Class hours: 6 lecture/12 lab (6 weeks)
Prerequisite: Minimum stenotype speed of 110 wpm.
Corequisite: BUSC 2T and BUSC 4T.
Recommendation: Minimum typing speed of 50 wpm.
This short-term, intensive course further promotes the development of speed, accuracy, and formatting techniques in reporting and transcribing increasingly complex multiple-voice colloquy. This course develops proficiency in recording colloquy at speeds ranging from 120-150 wpm. Sustained dictation consists of multiple-voice colloquy, jury charge, Congressional Record, and two-voice testimony. This course may be taken for a maximum of 9 units. (Formerly BUSC 55)
Transfer Credit: CSU

BUSC 156
JURY VOIR DIRE PROCEDURES
INTERMEDIATE COMPUTERIZED SHORTHAND SPEED DEVELOPMENT (140-170 WPM) 3 UNITS
Class hours: 6 lecture/12 lab (6 weeks)
Prerequisite: Minimum stenotype speed of 130 wpm.
Corequisite: BUSC 2T, BUSC 3T, and BUSC 4T.
Recommendation: Minimum typing speed of 55 wpm.
This short-term, intensive course is designed to introduce methodology of reporting jury voir dire and to develop management techniques and stenotype speed for this aspect of reporting. The course develops proficiency in recording jury voir dire proceedings and jury charge at speeds ranging from 150-160 wpm. This course may be taken for a maximum of 9 units. (Formerly BUSC 56)
Transfer Credit: CSU

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
BUSC 157  
CONGRESSIONAL TESTIMONY COMPUTERIZED SHORTHAND SPEED DEVELOPMENT  
(160-190 WPM)  3 UNITS  
Class hours: 6 lecture/12 lab (6 weeks)  
Prerequisite: Minimum stenotype speed of 180 wpm.  
Corequisite: BUSC 2T, BUSC 3T, and BUSC 4T.  
Recommendation: Minimum typing speed of 60 wpm.  
This short-term, intensive course promotes the development of speed and accuracy in taking dictation at the machine. Sustained dictation consists of Congressional Record, literary, jury charge, and multiple-voice testimony. This course also prepares advanced students for various state and city hearing reporter examinations. This course may be taken for a total of 9 units. (Formerly BUSC 57)  
Transfer Credit: CSU  

BUSC 158  
PROFESSIONAL PRACTICES  
HEARINGS/CONFERENCES COMPUTERIZED SHORTHAND SPEED DEVELOPMENT  
(180-210 WPM)  3 UNITS  
Class hours: 6 lecture/12 lab (6 weeks)  
Prerequisite: Minimum stenotype speed of 170 wpm.  
Corequisite: BUSC 2T, BUSC 3T, and BUSC 4T.  
Recommendation: Minimum typing speed of 60 wpm.  
This short-term intensive course is designed to introduce methodology of reporting hearings and conferences with multiple-speaker identification symbols and to develop management techniques and stenotype speed for this aspect of reporting. This course provides for the development of proficiency in writing multiple-voice dictation with an emphasis on hearings and conferences at speeds ranging from 180-210 wpm. This course may be taken for a maximum of 9 units. (Formerly BUSC 58)  
Transfer Credit: CSU

BUSC 159  
IN CURIA/IN CAMERA PROCEDURES  
COMPUTERIZED SHORTHAND SPEED DEVELOPMENT  
(190-225 WPM)  3 UNITS  
Class hours: 6 lecture/12 lab (6 weeks)  
Prerequisite: Minimum stenotype speed of 180 wpm.  
Corequisite: BUSC 2T, BUSC 3T, and BUSC 4T.  
Recommendation: Minimum typing speed of 60 wpm and completion of 50 hours of court apprenticeship.  
This course offers an overall view of the mechanics of trials and applications of court procedures. Students are assisted in acquiring a mastery of creating verbatim records. In addition, the course offers sustained dictation on all aspects of criminal and civil trials to develop professionalism. This course may be taken for a maximum of 9 units. (Formerly BUSC 59)  
Transfer Credit: CSU  

BUSC 173/174  
BUSINESS COURT REPORTING/COMPUTERIZED SHORTHAND OCCUPATIONAL WORK EXPERIENCE  
3-4 UNITS  
Class hours: 1 lecture  
Prerequisite: None.  
Corequisite: Enrollment in 7 or more units, including Business Court Reporting/Computerized Shorthand Occupational Work Experience, in a declared business major.  
Three units of Business Court Reporting/Computerized Shorthand Occupational Work Experience require 180 non-paid hours of work or 225 paid hours of work per semester. Four units of Business Court Reporting/Computerized Shorthand Occupational Work Experience require 240 non-paid hours of work or 300 paid hours of work per semester.  
Recommendation: None.  
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their participation assignments and semester work projects have been approved. These courses may be taken for a maximum of 15-16 units. (Formerly BUSC 73/74)  
Transfer Credit: CSU  

BUSC 180  
COMPUTERIZED SHORTHAND SPEED BUILDING (225 WPM)  3 UNITS  
Class hours: 2 lecture/4 lab  
Prerequisite: Minimum stenotype speed of 190 wpm and typing speed of 60 wpm.  
Corequisite: BUSC 2T, BUSC 3T, and BUSC 4T.  
Recommendation: Strongly recommend completion of CSR academic requirements and Court Reporting CAT computer classes.  
This course is designed for potential Certified Shorthand Reporter Examination candidates and Registered Professional Reporter Examination candidates. It will provide intensive sustained dictation at 225-240 wpm to develop speed and endurance on the steno machine. This course may be taken for a maximum of 12 units. (Formerly BUSC 80)  
Transfer Credit: CSU  

BUSC 181  
COMPUTERIZED SHORTHAND SPEED BUILDING (240 WPM)  3 UNITS  
Class hours: 2 lecture/4 lab  
Prerequisite: Minimum stenotype speed of 225 wpm and typing speed of 60 wpm.  
Corequisite: BUSC 2T, BUSC 3T, and BUSC 4T.  
Recommendation: Strongly recommend completion of CSR academic requirements and Court Reporting CAT computer classes.  
This course is designed for candidates for the Certified Shorthand Reporter examination, the Registered Professional Reporter examination, and the Registered Merit Reporter examination. It will provide intensive sustained dictation at 240-260 wpm to develop speed, accuracy, and endurance on the steno machine. (Formerly BUSC 81)  
Transfer Credit: CSU  

BUSC 185  
CSR/RPR EXAMINATION PREPARATION  
1.5 UNITS  
Class hours: 3 lecture  
Prerequisite: None.  
Corequisite: None.  
Recommendation: Strongly recommend completion of Certified Shorthand Reporter’s academic requirements.  
This course is designed for potential Certified Shorthand Reporter Examination candidates and Registered Professional Reporter Examination candidates. It will provide academic preparation and reinforcement in selected subject areas, along with a mock CSR examination and a mock RPR examination. This course may be taken for a maximum of 4.5 units. (Formerly BUSC 85)  
Transfer Credit: CSU  

BUSC 190  
MEDICAL TRANSCRIPTION I/COURT REPORTING METHOD  
3 UNITS  
Class hours: 3 lecture/2 lab  
Prerequisite: BUSC 114 and BUSC 142 or equivalents with grades of Credit or “C” or higher.
BUSC 193
BASIC CAPTIONING 4.5 UNITS
Class hours: 4 lecture/2 lab
Prerequisite: BUSC 144 and BUSC 119B or equivalents with grades of Credit or “C” or higher.

Corequisite: BUSC 1T
Recommendation: None.
This course is designed to teach students the basics of realtime captioning as applied to broadcast captioning; captioning of video and other media; captioning for hearing impaired at public gatherings, meetings, and in the classroom; captioning over the Internet; students will develop new applications for this new and emerging technology which includes online and offline captioning, as well as open and closed captioning. This course includes hands-on captioning assignments designed to familiarize students with captioning software and application. This course may be taken for a maximum of 9 units.
Transfer Credit: CSU

BUSC 191
MEDICAL TRANSCRIPTION II; COURT REPORTING METHOD 3 UNITS
Class hours: 2.5 lecture/1.5 lab
Prerequisite: BUSC 119E, BUSC 190, and A&P 120 or equivalents with grades of Credit or “C” or higher.
Corequisite: BUSC 143 and BUSC 174 or equivalents.
Recommendation: MA 161 or equivalent with a grade of Credit or “C” or higher.
This course is for the advanced stenotypist using the computer to generate medical reports for the medical and insurance industries. This course incorporates acquisition and maintenance of equipment; moderns as utilized by the medical transcriptionist; professional organizations and certifications; professional development; advanced medical transcription; as well as standardized terminology in the areas of radiology, pathology, gerontology, obstetrics, physical therapy, hearing impairments, and pharmacology. Medico-legal ethics and medical reference books are also covered. This course may be taken for a maximum of 6 units. (Formerly BUSC 90)
Transfer Credit: CSU

BUSC 192
TRANSCRIPTION PROCEDURES 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: BUSC 141 or equivalent with a grade of Credit or “C” or higher and the ability to type 40 wpm.
This course is designed to help students acquire the skills necessary to properly format transcript data of court proceedings. This formatting relates to all types of legal and court documents including deposition transcripts. This course may be taken for a maximum of 4 units. (Formerly BUSC 92)
Transfer Credit: CSU

BUSF 50
ELECTRONIC CALCULATORS/ BUSINESS APPLICATIONS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to teach students how to properly operate electronic calculators. Students will learn how electronic display calculators work, how to properly enter data using the ten-key keyboard, and how electronic calculators are used in business to solve practical problems. Techniques learned in this class can be applied to data processing and accounting classes. (Formerly BUSF 15)
Transfer Credit: CSU

BUSF 125
PERSONAL FINANCE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course will cover the following subject areas: how to invest in the stock market; the various kinds of stocks, bonds, warrants, and rights; investment objectives; investment systems; the Broker’s part in investment; stock exchanges; how stocks are traded and reported in the newspaper; investment vocabulary, mutual funds, and investment companies. (Formerly BUSF 25)
Transfer Credit: CSU

BUSF 126
INTRODUCTION TO STOCK MARKET AND INVESTMENTS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course will cover the following subject areas: how to invest in the stock market; the various kinds of stocks, bonds, warrants, and rights; investment objectives; investment systems; the Broker’s part in investment; stock exchanges; how stocks are traded and reported in the newspaper; investment vocabulary, mutual funds, and investment companies. (Formerly BUSF 26)
Transfer Credit: CSU
Announcement of Courses

BL 52
LAW OFFICE MANAGEMENT  3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: BL 56 or prior completion with a grade of Credit or “C” or higher.
Recommendation: None.
This course is a study of law office management and organization. Roles, activities, and responsibilities in timekeeping and accounting systems for law offices, as well as legal calendaring, file organization, and retrieval systems, will be taught. Law office computers and their functions in the law office will be utilized. (Formerly BL 5)

BL 56
INTRODUCTION TO COMPUTERIZED LEGAL SOFTWARE  3 UNITS
Class hours: 3 lecture +1 hr. lab. arr.
Prerequisite: None.
This is an introductory course in the utilization of legal software. The student will use software in conjunction with a document control system that will include applications for the following law office functions: document maintenance, document retrieval, document construction, document billing, and document calendaring. (Formerly BL 9)

BL 57
LEGAL DOCUMENT PRODUCTION  3 UNITS
Class hours: 3 lecture +1 hr. lab. arr.
Prerequisite: None.
Corequisite: None.
Recommendation: BL 56 or BASS 108 or equivalent with a grade of Credit or “C” or higher.
This is a course in the production of legal documents using WordPerfect. Topics covered include the development and production of client worksheets, fee agreements, fax forms, interrogatories, legal briefs, office newsletters, deposition summaries, pleadings, and trial notebooks. Students will create these legal documents on a computer. (Formerly BL 9.1)

BL 100
INTRODUCTION TO CALIFORNIA CIVIL PROCEDURES  3 UNITS
Class hours: 3 lecture +1 hr. lab. arr.
Prerequisite: None.
Corequisite: BL 56 or prior completion with a grade of Credit or “C” or higher.
This course is an introduction to civil procedures in litigation, including pre-suit claims and notices, jurisdiction, service of process, venue, statutes of limitations, parties, and joinder. Rules governing pleading in complaints and answers are covered, as well as demurrers and amended pleadings. Computerized legal forms are introduced. (Formerly BL 2)
Transfer Credit: CSU

BL 101
INTRODUCTION TO LAW  3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is an introduction to careers in the legal field including the role of the paralegal/legal assistant in the law office and the rules of ethics which govern lawyers and legal assistants. The course also covers substantive law in the areas of crimes and torts and describes the structure of the legal system in the federal and state settings. An introduction to the law library and legal resources is provided. (Formerly BL 1)
Transfer Credit: CSU

BL 102
ADVANCED CALIFORNIA CIVIL PROCEDURES  3 UNITS
Class hours: 3 lecture +1 hr. lab. arr.
Prerequisite: BL 100 and BL 56 or equivalent with grades of Credit or “C” or higher.
This course continues the study of California Civil Procedures through the trial of a civil matter. Students will study the elements of discovery and develop a written discovery plan. Students will draft motions, judicial arbitration materials, trial briefs, and settlement proceedings. This is an optional course concentrating in advanced civil litigation and writing. (Formerly BL 3)
Transfer Credit: CSU

BL 103
LEGAL RESEARCH  3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: BL 101 and BL 56 or equivalent with grades of Credit or “C” or higher.
This course is designed to introduce students to the basic techniques of legal research. Emphasis will be placed upon techniques of modern legal research which include the use of the law library and the specific techniques of how to use the primary and secondary sources of the law, legal terms, research aids; and introduction to legal writing. Primary emphasis will be on the legal research in the state of California. (Formerly BL 4.1)
Transfer Credit: CSU

BL 104
ADVANCED LEGAL RESEARCH  3 UNITS
Class hours: 3 lecture
Prerequisite: BL 103 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: BL 56 or equivalent with a grade of Credit or “C” or higher.
This is an advanced legal research course for the paralegal student. This course will utilize legal research skills to develop sophisticated techniques in the use of legal research materials both at the state and federal levels. Computerized legal research (Westlaw) and traditional research methods will be utilized in preparing complex legal research projects. Analysis of the law through practical application of legal research will be developed. Memorandums, points and authorities, and comprehensive briefs will be required. (Formerly BL 4.2)
Transfer Credit: CSU

BL 105
INTRODUCTION TO FEDERAL AND CALIFORNIA EMPLOYMENT, LABOR, AND WORKERS’ COMPENSATION LAW  3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an introduction to Federal and California State employment, labor, and workers’ compensation laws that affect the relationship between employers and employees in the work place. It provides an understanding for both employers and employees of their rights and obligations under these laws. (Formerly BL 14)
Transfer Credit: CSU

BL 106
BANKRUPTCY LAW  3 UNITS
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: BL 100, BL 101, and BA 111 or equivalent with grades of Credit or “C” or higher.
This course is an introduction to the Federal Bankruptcy law, with emphasis on Chapter 7 Bankruptcies, and discussions and introduction to Chapter 11 and 13 proceedings. The student will complete an entire Chapter 7 Bankruptcy petition and other documents and motions involving a bankruptcy case under the Bankruptcy Code. Included will be creditors’ claims and motions for relief of automatic stay. (Formerly BL 6)
Transfer Credit: CSU

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Announcement of Courses

BL 107
PROBATE PROCEDURES 3 UNITS
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: BL 56 or equivalent with a grade of Credit or “C” or higher.
Recommendation: BL 100, BL 101, and BA 111 or equivalent with grades of Credit or “C” or higher.
This course acquaints the student with the procedures and laws governing the probate of estates, both testate and intestate, and with procedures to transfer decedent’s property without probate. Emphasis is placed upon correct completion of probate forms, notice requirements, and time limits. Procedures governing guardianship and conservatorship will also be covered. (Formerly BL 7)
Transfer Credit: CSU

BL 108
FAMILY LAW PROCEDURES 3 UNITS
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: BL 56 or equivalent with a grade of Credit or “C” or higher.
Recommendation: BL 100, BL 101, and BA 111 or equivalent with grades of Credit or “C” or higher.
This course acquaints the student with the laws governing family relations and procedures for dissolution of marriage actions. These are: Order to Show Cause Hearings, Trials, and Post Dissolution Proceedings. Preparation of marital termination agreements, types of judgments, adoptions and custody agreements are also presented. (Formerly BL 8)
Transfer Credit: CSU

BL 112
ESTATE PLANNING FOR THE PARALEGAL 3 UNITS
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: BL 56 or equivalent with a grade of Credit or “C” or higher.
Recommendation: BL 100, BL 101, and BA 111 or equivalent with grades of Credit or “C” or higher.
This course is an introduction to estate administration. The student will learn the legal theories relating to wills, trusts, succession, taxation, and probate. Document preparation will be required in the areas of wills, trusts, and estate plans. (Formerly BL 10)
Transfer Credit: CSU

BL 113
FUNDAMENTALS OF ALTERNATE DISPUTE RESOLUTIONS 3 UNITS
Class hours: 3 lecture +1 hr. lab. arr.
Prerequisite: BL 56 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: BL 100 or equivalent with a grade of Credit or “C” or higher.
This course introduces the students to the basic techniques of using the Internet for legal research and career information. Students learn how to access and use the Internet. Emphasis is placed on search techniques including refining search queries and performing legal and career searches utilizing several web search engines. Federal and multi-state research materials will be used. (Formerly BL 11)
Transfer Credit: CSU

BL 114
LAW ON THE INTERNET 1.5 UNITS
Class hours: 3 lecture +1 hr. lab. arr. (9 weeks)
Prerequisite: None.
Corequisite: None.
This course introduces the students to the basic techniques of using the Internet for legal research and career information. Students learn how to access and use the Internet. Emphasis is placed on search techniques including refining search queries and performing legal and career searches utilizing several web search engines. Federal and multi-state research materials will be used. (Formerly BL 12)
Transfer Credit: CSU

BL 115
ELDER LAW 3 UNITS
Class hours: 3 lecture +1 lab. hr. arr.
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces the student to the expanding legal area of elder law. Topics include ethical considerations, government benefits, health care decision making, Medicare and Medi-Cal benefits, home care versus residential care facilities, and protection from physical and/or fiduciary abuse. Upon completion of the course, students will be able to direct the elderly or their families to the appropriate government or private agency for assistance. (Formerly BL 13)
Transfer Credit: CSU

BL 120
LEGAL ETHICS 1.5 UNITS
Class hours: 1.5 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is a study of the major areas of legal ethics and rules of professional responsibility as they affect paralegal/legal assistants. The course also focuses on legal ethics as they apply to attorneys. The course will cover the substantive rules regarding the regulation of lawyers/paralegals, the unauthorized practice of law, issues of confidentiality and conflicts of interest, as well as advertising and solicitation. (Formerly BL 20)
Transfer Credit: CSU

BL 171
BUSINESS PARALEGAL OCCUPATIONAL WORK EXPERIENCE 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Business Paralegal Occupational Work Experience, in a declared business major. One unit of Business Paralegal Occupational Work Experience requires 60 non-paid hours or 75 paid hours of work per semester.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. This course may be taken for a maximum of 3 units. (Formerly BL 71)
Transfer Credit: CSU

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
FIRST SEMESTER:

- **BL 172**
  - **BUSINESS PARALEGAL OCCUPATIONAL WORK EXPERIENCE**
  - **2 UNITS**
  - Class hours: 1 lecture
  - Prerequisite: None.
  - Corequisite: Enrollment in 7 or more units, including Business Paralegal Occupational Work Experience, in a declared business major.
  - Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. This creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers.

- **BL 173/174**
  - **BUSINESS PARALEGAL OCCUPATIONAL WORK EXPERIENCE**
  - **3-4 UNITS**
  - Class hours: 1 hour/week coordination class.
  - Corequisite: Enrollment in 7 or more units, including Business Paralegal Occupational Work Experience, in a declared business major.
  - Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers.

SECOND SEMESTER:

- **BL 220**
  - **LANDLORD AND TENANT LAW**
  - **3 UNITS**
  - Class hours: 3 lecture + 1 hr. lab. arr.
  - Prerequisite: BL 56 or equivalent with a grade of Credit or "C" or higher.
  - Corequisite: None.
  - Recommendation: None.
  - This is an introduction to landlord and tenant law including the nature of the tenancy relationship, rental agreements, rights and obligations during tenancy, premises liability and unlawful detainer litigation. Rules governing preparation of the unlawful detainer summons and complaint and answer are covered as well as obtaining default judgment and possession of property.

THIRD SEMESTER:

- **BL 230**
  - **CORPORATE LAW**
  - **3 UNITS**
  - Class hours: 3 lecture + 1 hr. lab. arr.
  - Prerequisite: BL 56 or equivalent with a grade of Credit or "C" or higher.
  - Corequisite: None.
  - Recommendation: None.
  - This is an introduction to corporate law. Concepts covered include substantive law considerations in choosing a business entity, pre-incorporation planning, forming a corporation, advantages and disadvantages of incorporating, issuance of shares and securities law considerations, corporate taxation, corporate structure, dividends and dissolution.

FOURTH SEMESTER:

- **BL 240**
  - **TORT LAW**
  - **1.5 UNITS**
  - Class hours: 1.5 lecture
  - Prerequisite: BL 56 or equivalent with a grade of Credit or "C" or higher.
  - Corequisite: BL 1T.
  - Recommendation: None.
  - This course includes the study of major areas of tort law. It includes detailed exploration of negligence, strict product liability, selected intentional torts, and special instances of negligence law. Class discussion and reading will emphasize study of the elements of proof of the prime facie case for each tort and application of tort rules to factual situations.

**Transfer Credit: CSU**
This is an advanced course in real estate, which introduces the student to real estate fundamentals and principles. Major topics covered are: history of real estate in California, contracts, agency, introduction to financing, deeds, liens and encumbrances, escrow and title insurance, land descriptions, and real estate math. (Formerly BUSR 11) Transfer Credit: CSU

BUSR 110
REAL ESTATE FINANCE 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSR 101 or equivalent with a grade of Credit or "C" or higher.
This course is designed to be of assistance to real estate brokers, salesmen, college students majoring in real estate, and others who may have a special interest in real estate financing. Actual case illustrations demonstrating lending policies, problems, and risks involved in financing transactions in residential apartment, commercial, and special purpose properties will be used. (Required by law for applicants for Broker's License.) (Formerly BUSR 20) Transfer Credit: CSU

BUSR 125
LEGAL ASPECTS OF REAL ESTATE 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSR 101 or BA 111 or equivalent with a grade of Credit or "C" or higher.
This course is designed to be of assistance to real estate licensees, college students majoring in real estate, and others interested in real estate. This is a practical, applied study of California real estate law intended to be of help in avoiding legal difficulties which can arise with real estate transactions. (Required by law for applicants for Broker's License.) (Formerly BUSR 25) Transfer Credit: CSU

BUSR 130
REAL ESTATE PRACTICES 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to acquaint the students with everyday real estate practice; to familiarize them with forms used and with on-the-job problems; to keep them abreast of change in conditions in the real estate business, notably the money market, land utilization, and zoning; and to inform them of modern selling practices and techniques. (Required by law for applicants for Broker's License.) (Formerly BUSR 32) Transfer Credit: CSU
Announcement of Courses

BUSR 131
INTRODUCTION TO REAL ESTATE APPRAISAL 4 UNITS
Class hours: 4 lecture
Prerequisite: BUSR 101 or equivalent with a grade of Credit or "C" or higher.
This course is an introduction to the field of real property appraisal. It includes the hands-on evaluation of a single family residence and a multi-family income unit. This course includes preparation of and finalization of the Uniform Residential Appraisal Report. Students will learn to use the Uniform Residential Appraisal Report (URAR) with addendums for the single family residence report and will use the Small Residential Income Report for multiple units. This class includes the mandatory 15 hours of Uniform Standards of Professional Appraisal Practice (USPAP). The completion of 15 hours of study of Uniform Standards of professional Appraisal Practices (USPAP) is required for every classification of State Appraisal Licensing or Certification. This course will qualify for 69 hours of basic Appraisal Education toward the 90 hours necessary for Trainee License, the 120 hours required for Licensed or Certified Residential classification, and the 180 hours required for the Certified General classification. (Formerly BUSR 31)
Transfer Credit: CSU

BUSR 140
REAL ESTATE PROPERTY MANAGEMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
The course illustrates how skilled management practice can assure the production of maximum financial yield to investment real estate. The students gain an overview of the many different types of properties in which they might become involved. The course considers the specific duties of management, including the establishment of rental schedule, merchandising available space, collecting rent, creating and supervising maintenance schedules and repairs, supervising all purchasing, developing a tenant relationship policy, and maintaining proper accounting records. In addition, the course includes Trust Fund Handling and Fair Housing, both required three-hour courses for real estate agent licenses. The course is additionally approved for 45 hours of continuing education for real estate licenses, 51 hours of continuing education for certified and licensed Appraisers or 54 hours of basic education for real estate appraisers. Course may be taken as a broker's license requirement. (Formerly BUSR 40)
Transfer Credit: CSU

BUSR 151
FUNDAMENTALS OF ESCROW 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSR 101 or equivalent with a grade of Credit or "C" or higher.
This is a basic course covering the principles and fundamentals of escrow procedure, with emphasis on the duties and responsibilities of escrow personnel. Attention is given to the value of an escrow as a means of facilitating the transfer of property and for protection of the interests of the principals. This is a background course for real estate students and a prerequisite for more advanced courses in escrow. Course may be taken as a broker's license requirement. (Formerly BUSR 51)
Transfer Credit: CSU

BUSR 160
REAL ESTATE ECONOMICS 3 UNITS
Class hours: 3 lecture
Prerequisite: BUSR 101 or equivalent with a grade of Credit or "C" or higher.
This course covers principles and problems in urban development: basic methods of statistical analysis and interpretation, controlling land use, patterns of land use for commercial and industrial facilities, economic aspects of real estate investment theory, economic utilization and land resources, public housing, urban renewal and rehabilitation, and impact of environment controls. (Required for California Real Estate Broker's License.) (Formerly BUSR 60)
Transfer Credit: CSU

BUSR 172
BUSINESS REAL ESTATE OCCUPATIONAL WORK EXPERIENCE/CAREER INTERNSHIP 2 UNITS
Class hours: 1 hr./wk coordination class
Prerequisite: BUSR 101 or equivalent with a grade of Credit or "C" or higher.
Corequisite: Enrollment in 7 or more units, including Business Real Estate Occupational Work Experience/Career Internship, in a declared business major. Two units of Business Real Estate Occupational Work Experience/Career Internship require 120 non-paid hours of work or 150 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to exacting experiences in the workplace. The aim of the course is to assist students in becoming more productive workers. In the process of doing so, it creates greater communication with increased understanding between the broker/sponsors, student/trainees and the college.
First-semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Second-, third-, and fourth-semester students must meet weekly with the instructor until their participatory assignments and semester work projects have been approved. This course may be taken for a maximum of 6 units. (Formerly BUSR 72)
Transfer Credit: CSU

BUSR 173/174
BUSINESS REAL ESTATE OCCUPATIONAL WORK EXPERIENCE/CAREER INTERNSHIP 3-4 UNITS
Class hours: 1 lecture
Prerequisite: BUSR 101 or equivalent with a grade of Credit or "C" or higher.
Corequisite: Enrollment in 7 or more units, including Business Real Estate Occupational Work Experience, in a declared business major. Three units of Business Real Estate Occupational Work Experience require 180 non-paid hours of work or 225 paid hours of work per semester. Four units of Business Real Estate Occupational Work Experience require 240 non-paid hours of work or 300 paid hours of work per semester.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to exacting experiences in the workplace. The aim of the course is to assist students in becoming more productive workers. In the process of doing so, it creates greater communication with increased understanding between the broker/sponsors, student/trainees and the college.
First-semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Second-, third-, and fourth-semester students must meet weekly with the instructor until their participatory assignments and

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CHEMISTRY

(Science/Engineering/Math Division)

CHEM 9T (Not degree applicable)
CHEMISTRY-TUTORIAL 0 UNIT
Class hours: 2 lab
Corequisite: Enrollment in any chemistry course.
This course is designed to facilitate the learning of chemical knowledge, skills, and concepts through individualized and mediated instruction. It is open to any student enrolled in any chemistry course. (Formerly CHEM 99)

CHEM 100 (CAN CHEM 6)
INTRODUCTORY CHEMISTRY 4 UNITS
Class hours: 3 lecture/2 lab/1 quiz
Prerequisite: MATH 40 or equivalent with a grade of Credit or “C” or higher or satisfactory completion of Math Placement Process.
Recommendation: It is strongly recommended that the preceding prerequisite be completed within four years prior to the date of enrollment in CHEM 110.
This course is an introduction to the basic principles of inorganic and organic chemistry and biochemistry with their application to problems encountered in our everyday lives. The course includes the metric system, atomic structure, bonding, solutions, chemical reactions, hydrocarbons, functional groups, carbohydrates, lipids, and proteins. It is designed to give a general introduction to fundamental concepts and to prepare students for majors in nursing, dental hygiene, physician assistant, physical therapy assistant, liberal arts, and technical fields. (Not open to those with credit in more advanced courses.) (Formerly CHEM 10)
Transfer Credit: CSU; UC

CHEM 110
ELEMENTARY CHEMISTRY 4 UNITS
Class hours: 3 lecture/1 quiz/2 lab
Prerequisite: MATH 80 or MATH 80B or equivalent with a grade of Credit or “C” or higher, or satisfactory completion of the Math Placement Process.
Recommendation: It is strongly recommended that the preceding prerequisite be completed within four years prior to the date of enrollment in CHEM 110.
This introductory inorganic chemistry course emphasizes basic principles, formulas, equations, and chemical math problems. It is designed for students with little or no previous chemistry and prepares students for CHEM 111, General Chemistry. (Formerly CHEM 2)
Transfer Credit: CSU; UC

CHEM 111 (CAN CHEM SEQ A)(CAN CHEM 2)
GENERAL CHEMISTRY 5 UNITS
Class hours: 3 lecture/2 quiz/4 lab
Prerequisite: CHEM 110 or equivalent with a grade of Credit or “C” or higher and MATH 80 (or MATH 80B) or equivalent with grades of Credit or “C” or higher (satisfactory completion of the Math Placement Process may be substituted for MATH 80). All of the preceding prerequisites must be completed within five years prior to the date of enrollment in CHEM 111.
Recommendation: It is strongly recommended that all of the preceding prerequisites be completed within four years prior to the date of enrollment in CHEM 111. This course is designed for science majors. It includes stoichiometry; properties and changes of state for gases, liquids and solids; solutions; colloids; equilibria of gases, weak acids and bases, and slightly soluble compounds. (Formerly CHEM 1.1)
Transfer Credit: CSU; UC

CHEM 112 (CAN CHEM SEQ A)(CAN CHEM 4)
GENERAL CHEMISTRY 5 UNITS
Class hours: 3 lecture/2 quiz/4 lab
Prerequisite: CHEM 111 or equivalent with a grade of Credit or “C” or higher or equivalent.
Recommendation: It is strongly recommended that the preceding prerequisite be completed within four years prior to the date of enrollment in CHEM 112.
This course is designed for science majors and is a continuation of CHEM 111. It includes oxidation-reduction; electrochemistry; modern atomic structure and bonding; molecular geometry; coordination chemistry; nuclear chemistry; thermodynamics; kinetics and organic chemistry. The laboratory includes some qualitative analysis. (Formerly CHEM 1.2)
Transfer Credit: CSU; UC

CHEM 205
QUANTITATIVE ANALYSIS CHEMISTRY 4 UNITS
Class hours: 2 lecture/2 quiz/4 lab
Prerequisite: CHEM 112 or equivalent with a grade of Credit or “C” or higher.
Recommendation: It is strongly recommended that the preceding prerequisite be completed within four years prior to the date of enrollment in CHEM 205.
This course is an introduction to theories and techniques of gravimetric, volumetric, colorimetric, and electro-analytic methods of analysis. The course is designed for majors in chemistry, engineering, medicine, dentistry, pharmacy, and laboratory technology. (Formerly CHEM 5)
Transfer Credit: CSU; UC

CHEM 211-212
ORGANIC CHEMISTRY 5-5 UNITS
Class hours: 3-3 lecture/2-2 quiz/4-4 lab (211-F; 212-S)
Prerequisite: CHEM 112 or equivalent with a grade of Credit or “C” or higher.
Recommendation: It is strongly recommended that the preceding prerequisites be completed within four years prior to the date of enrollment in CHEM 211-212.
A year course in the properties and reactions of aliphatic and aromatic organic compounds with emphasis being placed on reaction mechanisms, fundamental principles and modern instrumental methods. The Laboratory will stress synthesis, techniques, and spectroscopic and qualitative analysis. (Formerly CHEM 7.1-7.2)
Transfer Credit: CSU; UC

CHEM 250L
SPECIAL TOPICS IN CHEMISTRY 1 UNIT
Class hours: 3 lab
Prerequisite: CHEM 111 or equivalent with a grade of Credit or “C” or higher.
This course is primarily for chemistry or related science majors. Individual research problems are explored using materials, equipment and techniques not available to larger classes. This course may be taken for a maximum of 2 units. (Formerly CHEM 30.16)
Transfer Credit: CSU; UC

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POSITIVE CHILD GUIDANCE 1.5 UNITS
Transfer Credit: CSU
(Formerly CD 24)

CD 137
POSITIVE CHILD GUIDANCE 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: CDEC 111 and CD 110 or equivalents with grades of Credit or “C” or higher.
This course covers the theories of behavior, guidance techniques, and effective communication. The emphasis will be on developing an understanding of children’s behavior and encouraging positive self-esteem while helping the child work toward self-control.
(Formerly CD 37)
Transfer Credit: CSU

CD 124
THE CHILD IN A PLURALISTIC SOCIETY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course will familiarize the student with principles of child development from conception through adolescence including behavior patterns and group interaction of children. The student will also learn the effect of family, peers, and society upon children at different ages and cultures. This course meets the Department of Social Service Classification Indicator DS 1. (Formerly CD 24)
Transfer Credit: CSU; UC

CD 65
MUSIC AND MOVEMENT FOR YOUNG CHILDREN 2 UNITS
Class hours: 2 lecture, 1 lab
Prerequisite: CDEC 112 or equivalent with a grade of Credit or “C” or higher.
This course focuses on principles and methods of providing creative musical and movement experiences for young children. The student will also have the opportunity to learn how to use simple musical instruments suitable for use in Early Childhood Education programs. This course meets the Department of Social Service Classification Indicator DS 3. (Formerly CDEC 40)
**Announcement of Courses**

**CDEC 66**
**ADMINISTRATION AND SUPERVISION OF EARLY CHILDHOOD EDUCATION PROGRAMS** 3 UNITS
Class hours: 3 lecture
Prerequisite: CD 110, CDEC 111, CDEC 112, and CDEC 113 or equivalent with grades of Credit or "C" or higher.
This course will acquaint the student with the role of the director/supervisor in a child care program. Content includes laws governing child care in California, admission procedures, recordkeeping, budget, finance, the physical plant, and staffing concerns. This course meets the Department of Social Services Classification Indicator DS 6. (Formerly CDEC 50)

**CDEC 67**
**ADVANCED ADMINISTRATION AND SUPERVISION OF EARLY CHILDHOOD EDUCATION PROGRAMS** 3 UNITS
Class hours: 3 lecture
Prerequisite: CDEC 66 or equivalent with a grade of Credit or "C" or higher or equivalent. Corequisite: None.
Recommendation: Teaching experience
This course offers advanced information for administrators or directors in the child care professions. The student will explore legislative updates, current issues, families at risk, professionalism, Child Development Associates, National Association for the Education of Young Children Accreditation, and marketing strategies. This course meets the Department of Social Services Classification Indicator DS 6. (Formerly CDEC 51)

**CDEC 111**
**PRINCIPLES AND PRACTICES IN EARLY CHILDHOOD EDUCATION** 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course provides a survey of the field of Early Childhood Education emphasizing history and recent trends. It includes an introduction to different types of programs and the vocational opportunities available. Field trips to schools for young children will be featured. This course meets the Department of Social Service Classification Indicator DS 3. (Formerly CDEC 10)
Transfer Credit: CSU

**CDEC 112**
**EARLY CHILDHOOD EDUCATION CURRICULUM** 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This introductory course presents current concepts in childhood curriculum development and implementation. Emphasis is placed on developmentally appropriate curricular practices for an effective program for young children. The student will construct curriculum and assess its appropriateness in meeting diverse needs, levels of functioning and interest of children. This course meets the Department of Social Service Classification Indicator DS 3. (Formerly CDEC 20)
Transfer Credit: CSU

**CDEC 113**
**THE CHILD, FAMILY, AND COMMUNITY** 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This is a course for anyone who deals with children: parents, teachers, and professionals in human services. Topics discussed are the influences on children's growth by the family, the school, day-care facilities, the peer group, the mass media, and the community. Also examined are how these forces interact to socialize and produce the child's values, morals, attitudes, behavior and self-esteem. This course meets the Department of Social Service Classification Indicator DS 2. (Formerly CDEC 21)
Transfer Credit: CSU

**CDEC 133**
**EARLY CHILDHOOD EXPERIENCES IN MATHEMATICS AND SCIENCE** 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: CDEC 112 or equivalent with a grade of Credit or "C" or higher.
This course will acquaint the student with developmentally appropriate mathematics and science activities for pre-kindergarten children. Activities for this age group in counting, sets, earth and life sciences, classification of objects, and cooking experiences will be presented. This course meets the Department of Social Service Classification Indicator DS 3. (Formerly CDEC 33)
Transfer Credit: CSU

**CDEC 173/174**
**EARLY CHILDHOOD EDUCATION OCCUPATIONAL WORK EXPERIENCE** 3-4 UNITS
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Early Childhood Education work experience 73 or 20 hours of employment per week for Early Childhood Education work experience 74. The employment must be in a job related to the student's educational goal.
Prerequisite: None.
Corequisite: Enrollment in Child Development vocational program of 7 or more units in major including Occupational Work Experience.
Occupational Work Experience is a supervised employment program in an approved work station related to the student's declared major. Students will receive credit for on-the-job learning experiences that are new or an expansion of their regular responsibilities. This course may be repeated for a maximum of 8 units based on the number of hours on the job. This course meets the Department of Social Service Classification Indicator DS 3. (Formerly CDEC 73/74)
Transfer Credit: CSU

**CDEC 230**
**ADULT SUPERVISION IN CHILD CARE PROGRAMS** 3 UNITS
Class hours: 3 lecture
Prerequisite: CD 110, CDEC 111, CDEC 112, and CDEC 113 or equivalents with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is a study of the methods and principles of supervising student teachers, assistant teachers, parents and volunteers in early childhood education/child development classrooms. Emphasis is on the role of the classroom teachers who function as mentors to new teachers while simultaneously addressing the needs of children, parents, and other staff. This course meets the requirement for a course in adult supervision for the California Child Development Permit. (Formerly CDEC 52)
Transfer Credit: CSU

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CHILD DEVELOPMENT/ FAMILy CHILD CARE

(Health Occupations Division)

CDFC 10 (Not degree applicable)
FAMILY CHILD CARE PROVIDERS  3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed for a person interested in or already managing a child care business in the home. Licensing procedures, appropriate standards, recruitment of children, cultural issues, provision and maintenance of a safe and stimulating environment, nutrition programs, community resources, record keeping and other business aspects are covered. Emphasis is on nurturing children, working cooperatively with parents, and the importance of a good self-concept for the child and the family child care provider.

CHILD DEVELOPMENT/ INSTRUCTIONAL AIDE

(Health Occupations Division)

CDIA 73/74
INSTRUCTIONAL AIDE OCCUPATIONAL WORK EXPERIENCE  3-4 UNITS
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Instructional Aide work experience 73 or 20 hours of employment per week for Instructional Aide work experience 74. The employment must be in a job related to the student's educational goal.
Corequisite: Enrollment in the Instructional Aide vocational program with 7 or more units including occupational work experience.
Occupational Work Experience is a supervised employment program in an approved work station related to the student's declared major. Students meet with their instructor for a minimum of one hour per week and will receive credit for on-the-job learning experiences that are new or an expansion of their regular responsibilities. Students who are not employed but wish to gain work experience may be placed in a non-paying position if such opportunities are available. These courses may be taken for a maximum of 6-8 units based on the number of hours on the job.

CDIA 90
INTRODUCTION TO ELEMENTARY AND SECONDARY CLASSROOM EXPERIENCES  3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to introduce students to principles of classroom experiences. In addition to the dynamics of grade level instruction, emphasis is placed on how children learn, the curriculum of the classroom, and the role of the paraprofessional or volunteer within a school setting. Attention will be placed on bilingual and multicultural instruction. (Formerly CDIA 10)

CDIA 91
THE CHILD IN THE ELEMENTARY AND SECONDARY SCHOOL ENVIRONMENT  3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course examines various approaches to learning and their direct classroom applications: behavioral approaches to classroom management; cognitive psychology to specific curriculum designs; and motivation to humanizing the classroom. Individualization of instruction for children with special needs—bilingual, learning disabilities, and gifted—is emphasized. (Formerly CDIA 20)

CDIA 99
INSTRUCTIONAL AIDE PRACTICUM  3 UNITS
Class hours: 1 lecture/6 lab
Prerequisite: None.
This course offers the student the opportunity to work as an instructional aide under the supervision of professional staff in an elementary or secondary school setting. Content will include developing skills, techniques, and strategies for working in the multilingual/multicultural classroom. Classroom placement will be arranged for those students not employed by a school district. This course may be taken for a maximum of 6 units. (Formerly CDIA 35)

CHILD DEVELOPMENT/ INFANT TODDLER

(Health Occupations Division)

CDIT 50
INFANT/TODDLER CARE GIVING  3 UNITS
Class hours: 3 lecture
Prerequisite: CD 110 or equivalent with a grade of Credit or "C" or higher.
The principles of a sound infant/toddler care program are explored. The course content includes roles of the director, teacher and aide, laws and regulations, and considerations relating to learning objectives, developmental needs and other key factors. This course meets the Department of Social Service Classification Indicator DS 4. (Formerly CDIT 10)

CHILD DEVELOPMENT/ SCHOOL AGE

(Health Occupations)

CDSA 152
SCHOOL-AGE CHILD CARE SUPERVISION AND ADMINISTRATION  3 UNITS
Class hours: 3 lecture
Prerequisite: CD 110 or equivalent with a grade of Credit or "C" or higher.
This course presents the principles of administration and supervision of school-age child care programs. Emphasized are the role of the director, teacher, and aide; laws and regulations; and a study of objectives, curricula, developmental needs, and other key factors for operating such programs. The unique features of before-and-after-school care as opposed to the regular school day will be stressed. This course meets the Department of Social Service Classification Indicator DS 6. (Formerly CDSA 10)
Transfer Credit: CSU

CDSA 155
SCHOOL-AGE CHILD CARE ACTIVITIES  3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course presents activities for the 6-12 year-old child in an extended day care setting. Focus is on cognitive, physical, psychosocial, and creative aspects of development, as well as positive approaches to guidance. This course meets the Department of Social Service Classification Indicator DS 5. (Formerly CDSA 20)
Transfer Credit: CSU

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CDSE 259  
SCHOOL-AGE CHILD CARE PRACTICUM 3 UNITS  
Class hours: 2 lecture/3 lab  
Prerequisite: CDSE 155 or equivalent with a grade of Credit or “C” or higher. This course provides practical experiences in an extended day care program. It includes observation of behaviors exhibited by the school-age child and the opportunity to assist the teacher in the Center. Basic instruction includes guidance, room environment, tutoring, record keeping and other extended day care responsibilities. This course meets the Department of Social Service Classification Indicator DS 5. (Formerly CDSA 35)  
Transfer Credit: CSU  

CHILD DEVELOPMENT/ PARENT EDUCATION  
(Health Occupations Division)  

CDPE 10  (Not degree applicable)  
INTRODUCTION TO FAMILY DEVELOPMENT 3 UNITS  
Class hours: 3 lecture  
Prerequisite: None. This course offers the student a comprehensive introduction to the process of parenting from conception through adolescence. It offers an appreciation of challenges and pleasures of parenting as well as practical solutions to common problems.  

CHILD DEVELOPMENT/ SPECIAL EDUCATION  
(Health Occupations Division)  

CDSE 50  
SURVEY OF SPECIAL EDUCATION 3 UNITS  
Class hours: 3 lecture  
Prerequisite: None. This course is a survey of the field of special education emphasizing the role of the Special Education Assistant in the training of the exceptional individual. It will include an introduction to the types of handicapped children and adults, the function of the assistant and the vocational opportunities available. Field trips will be an important part of the instructional program. (Formerly CDSE 10)  

CDSE 51  
SPECIAL EDUCATION ENVIRONMENT 3 UNITS  
Class hours: 1 lecture/6 lab  
Prerequisite: CDSE 50 or equivalent with a grade of Credit or “C” or higher. This course offers an opportunity for the student assistant to observe and participate in programs for learning disabled and in special day classes. Programs for the educationally handicapped at public and private educational facilities, sheltered workshops, and residential facilities are discussed. (Formerly CDSE 35)  

CDSE 73/74  
SPECIAL EDUCATION ASSISTANT OCCUPATIONAL WORK EXPERIENCE 3-4 UNITS  
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Special Education Assistant work experience 73 or 20 hours of employment per week for Special Education Assistant work experience 74. The employment must be in a job related to the student's educational goal. Prerequisite: None.  
Corequisite: Enrollment in the Special Education Assistant vocational program with 7 or more units including occupational work experience.  
Occupational Work Experience is a supervised employment program in an approved work station related to the student's declared major. Students meet with their instructor for a minimum of one hour per week and will receive credit for on-the-job learning experiences that are new or are an expansion of their regular responsibilities. These courses may be repeated for a maximum of 8 units based on the number of hours on the job.  

COMPUTER AND INFORMATION SCIENCES  
(Science, Engineering and Math Division)  

CIS 2T  (Not degree applicable)  
AS/ 400 TUTORIAL LAB 0 UNIT  
Class hours: 2 hrs. arr. (9 weeks)  
Prerequisite: None. Corequisite: None. Recommendation: None. Students must attend two hours minimum per week and are limited to a maximum of six hours per week multiplied by the number of AS/400 courses in which the students are enrolled. (Formerly BCIS 23.3)  

CIS 3L  (Not degree applicable)  
COMPUTER UTILIZATION 0 UNIT  
Class hours: 1 hour per week as arranged. Students must attend one hour minimum per week and are limited to a maximum of three hours per week multiplied by the number of data processing courses in which the students are enrolled that require this lab. (Formerly BCIS 77)  

CIS 5A  (Not degree applicable)  
BUSINESS COMPUTER INFORMATION SYSTEMS WORD PROCESSING 0.5 UNITS  
Class hours: 1.5 lecture/2.5 lab (4 weeks)  
Prerequisite: None. Corequisite: None. Recommendation: Fluency in Spanish is strongly recommended. This course instructs the students, in a bilingual mode (Spanish), in the use of microcomputers within the business environment using the Microsoft Window interface and the Microsoft Office Professional application suite (Word, Excel, Access, and Powerpoint). Students learn basic aspects of microcomputer software applications using a modular approach. The module will include topics in file management, creation/maintenance of backups, formatting disks, and the basic concepts and use of a word processing application. This course may be taken for a maximum of 1.0 unit. (Not open to students with credit in CIS 102 (Formerly BCIS 15/BCIS 15.1))  

CIS 5B  (Not degree applicable)  
BUSINESS COMPUTER INFORMATION SYSTEMS SPREADSHEET MODULE 0.5 UNITS  
Class hours: 1.5 lecture/2.5 lab (4 weeks)  
Prerequisite: None. Corequisite: None. Recommendation: Fluency in Spanish is strongly recommended. This course instructs the students, in a bilingual mode (Spanish), in the use of microcomputers within the business environment using the Microsoft Window interface and the Microsoft Office Professional application suite (Word, Excel, Access, and Powerpoint). Students learn basic aspects of microcomputer software applications using a modular approach. The module will include topics in file management, creation/maintenance of backups, formatting disks, and the basic concepts and use of a spreadsheet application. This course may be taken for a maximum of 1.0 unit. (Not open to students with credit in CIS 102 (Formerly BCIS 15/BCIS 15.2))
CIS 5C (Not degree applicable)
BUSINESS COMPUTER INFORMATION SYSTEMS DATABASE MODULE 0.5 UNITS
Class hours: 1.5 lecture/2.5 lab (4 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Fluency in Spanish is strongly recommended.
This course instructs the students, in a bilingual mode (Spanish), in the use of microcomputers within the business environment using the Microsoft Window interface and the Microsoft Office Professional application suite (Word, Excel, Access, and Powerpoint). Students learn basic aspects of microcomputer software applications using a modular approach. The modules will include topics in file management, creation/maintenance of backups, formatting disks, and the basic concepts and use of a database application. This course may be taken for a maximum of 1.0 unit. (Not open to students with credit in CIS 102). (Formerly BCIS 15.3)

CIS 5D (Not degree applicable)
BUSINESS COMPUTER INFORMATION SYSTEMS POWERPOINT/INTERNET 0.5 UNITS
Class hours: 1.5 lecture/2.5 lab (4 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Fluency in Spanish is strongly recommended.
This course instructs the students, in a bilingual mode (Spanish), in the use of microcomputers within the business environment using the Microsoft Window interface and the Microsoft Office Professional application suite (Word, Excel, Access, and Powerpoint). Students learn basic aspects of microcomputer software applications using a modular approach. The module will include topics in file management, creation/maintenance of backups, formatting disks. The modules will also include the basic concepts and use of Powerpoint, a presentation application, and a basic introduction to the Internet and creating Web Pages. This course may be taken for a maximum of 1.0 unit. (Not open to students with credit in CIS 102) (Formerly BCIS 15/BCIS 15.4)

CIS 50
BASIC COMPUTER LITERACY 0.5 UNIT
Class hours: 4 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides the student with a basic overview of the components of a computer and application software. This course is for the student who is not familiar with the use of the computer and its applications. Topics will include a basic introduction to computer systems hardware, Windows, Word, Excel, and Powerpoint. The class stresses hands-on use of the computer with its applications. (Formerly BCIS 69.30/BCIS 1)

CIS 51
DATA ENTRY 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None
This course is designed to enable students to develop skill as data entry operators. Students will utilize a full screen data entry terminal. Data will be recorded on diskettes. Students also will be introduced to the microcomputer. (Formerly BCIS 6)

CIS 52
DATA PROCESSING MATHEMATICS 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the Math Placement Process or MATH 40 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
This course will provide students with an understanding of basic mathematical concepts, as used in computer applications. Students will solve problems in fundamental algebra using linear and nonlinear functions, study inventory statistics and probability and their relationships to each other, and learn to set up and solve formula relationships, including direct and indirect proportions. Other topics will include number systems, logic, mathematics of elementary finance, table structures, Boolean algebra, and basic geometric concepts, including some coordinate geometry. (Formerly BCIS 30)

CIS 53
MICROSOFT POWERPOINT 1.5 UNITS
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None
Corequisite: None.
Recommendation: CIS 102 or CIS 105 or equivalent with a grade of Credit or "C" or higher.
This course provides an introduction to the fundamentals of building worksheets include creating worksheets, cell formatting, functions, formulas, Wizards, and the creation of basic charts. Techniques to deal with large worksheets are covered. Templates, macros and database functions are previewed. Hands-on exercises are used to reinforce the functions of Excel. (Formerly BCIS 11.1)

CIS 54A
EXCEL FOR WINDOWS - PART 1 1.5 UNITS
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: CIS 54A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course continues to explore the functions of the Microsoft Excel for Windows spreadsheet. The fundamentals of building worksheets will include creating worksheets, formatting, functions, formulas, macros, data tables, analysis tools, and the creation of charts. Techniques to deal with multiple worksheets and large worksheets will be covered. The database functions of Excel will include: sorting, filtering, queries, macros, and record retrieval. Hands-on exercises will be used to reinforce the functions of Excel. (Formerly BCIS 11.2)

CIS 54B
EXCEL FOR WINDOWS - PART 2 1.5 UNITS
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: CIS 54A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course provides an introduction to the fundamentals of building worksheets include creating worksheets, cell formatting, functions, formulas, Wizards, and the creation of basic charts. Techniques to deal with large worksheets are covered. Templates, macros and database functions are previewed. Hands-on exercises are used to reinforce the functions of Excel. (Formerly BCIS 11.1)

CIS 55
MICROCOMPUTER DISK OPERATING SYSTEMS 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: CIS 101 or CIS 102 or equivalent with a grade of Credit or "C" or higher.
This course instructs the students, in a bilingual mode (Spanish), in the use of microcomputers within the business environment using the Microsoft Window interface and the Microsoft Office Professional application suite (Word, Excel, Access, and Powerpoint). Students learn basic aspects of microcomputer software applications using a modular approach. The module will include topics in file management, creation/maintenance of backups, formatting disks. The modules will also include the basic concepts and use of Powerpoint, a presentation application, and a basic introduction to the Internet and creating Web Pages. This course may be taken for a maximum of 1.0 unit. (Not open to students with credit in CIS 102). (Formerly BCIS 15/BCIS 15.4)

CIS 56
MICROSOFT POWERPOINT 1.5 UNITS
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None
Corequisite: None.
Recommendation: CIS 102 or CIS 105 or equivalent with a grade of Credit or "C" or higher.
This course is designed to acquaint the student with the functions of the major operating systems used on microcomputers in the business environment. The course will focus upon MS-DOS. Students will learn to use the operating system and its supporting utilities as a tool to make them more proficient users.
of the microcomputer as a business tool. This course is not open to students with credits in BCIS 20. 01. (Formerly BCIS 69. 6/BCIS 20)

CIS 57
ADVANCED TOPICS IN MICROCOMPUTER DISK OPERATING SYSTEMS 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite:CIS 56 or equivalent with a grade of Credit or “C” or higher.
This course is designed to extend the student’s knowledge and skills in dealing with advanced aspects of disk operating systems in the business environment for IBM-type microcomputer hardware platforms. Coursework will include designing custom working environments using the tools included with the operating systems as well as those provided by outside vendors.
This course will also involve creating and using small customized utilities written with DEBUG and assembler. (Formerly BCIS 21)

CIS 70A
NETWORKING FUNDAMENTALS 2.5 UNITS
Class hours: 4.5 lecture/1.5 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 101, EL 114, and EL 114L or equivalents with grades of Credit or “C” or higher, or appropriate work experience.
This is a survey course about the computer networking and telecommunications industry. Topics covered include the seven layers of the Open Systems Interconnection Model (OSI), network architectures, internetworking and telecommunications. (Formerly BCIS 21)

CIS 70B
LOCAL AREA NETWORKS 2.5 UNITS
Class hours: 4.5 lecture/1.5 lab (9 weeks)
Prerequisite: CIS 70A or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course covers the general concepts of Local Area Networks (LANs). Topics covered include LAN physical architectures, Network Operating System (NOS) architectures, and how local networks may be extended to cover wider areas. (Formerly NTO 5. 2)

CIS 70C
WIDE AREA NETWORKS 2.5 UNITS
Class hours: 4.5 lecture/1.5 lab (9 weeks)
Prerequisite: CIS 70B or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course introduces technologies used to implement a Wide Area Network (WAN). Topics discussed include modems, point-to-point services, Frame Relay, Integrated Services Digital Network (ISDN), Metropolitan Area Networks (MAN), Fibre Channel, and Asynchronous Transfer Mode (ATM). (Formerly NTO 5. 3)

CIS 70D
NETWORKING ARCHITECTURES 2.5 UNITS
Class hours: 4.5 lecture/1.5 lab (9 weeks)
Prerequisite: CIS 70C or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course is an overview of the networking architectures commonly used in the networking industry. The architectures introduced are Transport Control Protocol/Internet Protocol (TCP/IP), System Network Architecture (SNA), AppleTalk, and Digital Equipment Corporation’s network (DECnet). (Formerly NTO 5. 4)

CIS 70E
INTERNETWORKING DEVICES 2.5 UNITS
Class hours: 4.5 lecture/1.5 lab (9 weeks)
Prerequisite: CIS 70D or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course gives a broad overview of the computer networking industry with emphasis on internetworking. Topics discussed include Virtual Local Area Networks (VLANs), network management, and various internetworking hardware devices, repeaters, hubs, bridges, switches, routers, and gateways. (Formerly NTO 5. 6)

CIS 70F
NETWORKING PROCESSES AND PROTOCOLS 2.5 UNITS
Class hours: 4.5 lecture/1.5 lab (9 weeks)
Prerequisite: CIS 70E or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This is an advanced course in computer networking. Concepts addressed in previous courses in this series are investigated in greater depth. Topics of discussion include the Open System Interconnection (OSI) model, network addressing, data link layer protocols, network layer protocols, transport layer protocols, upper layer protocols, and client/server information transfer. (Formerly NTO 5. 7)

CIS 70H
NETWORKING ANALYSIS AND DESIGN 2.5 UNITS
Class hours: 4.5 lecture/1.5 lab (9 weeks)
Prerequisite: CIS 70F or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course focuses on the design process for computer networking. Concepts and skills developed in previous courses in this series form the foundation for approaching the task of defining network requirements, writing specifications, designing, and implementing a computer network. (Formerly NTO 5. 8)

CIS 72
TCP/IP ON MICROSOFT WINDOWS NT 1.5 UNITS
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: CIS 70A, CIS 212 or CIS 212A and or equivalents with grades of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course provides students with the knowledge and skills required to set up, configure, use, and support Transmission Control Protocol/Internet Protocol (TCP/IP) on Microsoft Windows NT operating system. It is intended for those who support or administrator Microsoft Windows NT Server and Windows NT Workstation in a TCP/IP environment. This course is compliant with current industry certification. (Formerly BCIS 82. 1)

CIS 75
SQL ADMINISTRATION AND IMPLEMENTATION 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 212 or equivalent with a grade of Credit or “C” or higher is strongly recommended.
This course provides students with the knowledge and skills required to install, configure, administer, troubleshoot, and implement the Microsoft SQL server database management system. (Formerly BCIS 68)
CIS 80
**PROGRAMMING IN ACCESS**  3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 155 and CIS 179 or equivalents with grades of Credit or "C" or higher are strongly recommended.
This course provides students with the knowledge and skills required to program Access applications using Visual Basic for Application. The students will design and create real-world business applications. (Formerly BCIS 25)

CIS 82
**VISUAL BASIC SCRIPTING**  1.5 UNITS
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 179 and CIS 205 or equivalents with grades of Credit or "C" or higher are strongly recommended.
This course provides students with the knowledge and skills required to create interactive web pages using Microsoft Internet Technologies. The students will learn how to program in VBScript. (Formerly BCIS 48)

CIS 84
**MICROSOFT INTERNET INFORMATION SERVER**  1.5 UNITS
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: Strongly recommend CIS 212 or CIS 212B and CIS 72 or equivalents with grades of Credit or "C" or higher are strongly recommended.
This course covers the support of the various features of Microsoft Internet Information Server (IIS). Students will learn how to install, configure, and implement the key components that comprise IIS. They will also have hands-on experience setting up a Web site. The course is intended for those who support or administer Microsoft Internet Information Server. The course uses a combination of lectures, demonstrations, discussions, online assignments, and hands-on labs. This course is compliant with current industry certification. (Formerly BCIS 94.1)

CIS 101
**INTRODUCTION TO BUSINESS COMPUTER INFORMATION SYSTEMS**  3 UNITS
Class hours: 3 lecture +1 hr. lab. arr.
Prerequisite: None.
Corequisite: None.
This course provides the student with the essential knowledge required for a well-rounded understanding of the use of the computer as a tool to produce useful information in small and large business environments. The course allows the student to achieve an understanding of computer technology, computer hardware, computer software and how computers can be used to produce meaningful information. The student will solve applied problems in spreadsheet preparation and analysis using Microsoft EXCEL 5 and in programming using QuickBASIC 4.5. Students will have access to campus computer labs. (Formerly BCIS 40)
Transfer Credit: CSU

CIS 102
**INTRODUCTION TO MICROCOMPUTERS USING MICROSOFT OFFICE**  3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
This course instructs the students in the use of microcomputers within the business environment using the Microsoft Windows interface and the Microsoft Office Professional application suite (Word, Excel, Access, and PowerPoint). Students learn basic aspects of microcomputer hardware and software. Software topics include file management, elementary word processing, applications in spreadsheet use, database management, and presentation graphics. (Formerly BCIS 15)
Transfer Credit: CSU

CIS 103
**COMPUTER PROGRAMMING LOGIC**  3 UNITS
Class hours: 3 lecture +1 hr. lab. arr.
Prerequisite: None.
Corequisite: None.
Recommendation: Concurrent enrollment in or completion of CIS 101 or CIS 102 or equivalent with a grade of Credit or "C" or higher.
This is an introductory course in computer program flowcharting and programming languages. Computer program flowcharting concepts will be developed, beginning with the most basic of programs and gradually developing the acumen to handle complex business applications. In addition, the BASIC programming language will be utilized to code and debug flowcharting logic on the computer. (Formerly BCIS 56)
Transfer Credit: CSU; UC

CIS 105
**WINDOWS 95**  1.5 UNITS
Class hours: 3 lecture +1 hr. lab. arr. (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 102 or equivalent with a grade of Credit or “C” or higher.
This course covers the use of Windows 95. Topics include file and application management, personalizing the system, using the productivity tools, connecting to Internet, and exchanging data. Current topics of interest relating to Windows 95 will also be discussed. (Formerly BCIS 69.27/BCIS 34)
Transfer Credit: CSU

CIS 110
**INTRODUCTION TO DESKTOP PUBLISHING—MICROSOFT PUBLISHER**  1.5 UNITS
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 105 or equivalent with a grade of Credit or “C” or higher.
This course provides an introduction to the functions of Microsoft Publisher software. Microsoft Publisher will be used to create camera-ready printed presentation materials. The course will cover the fundamentals required to develop presentation materials such as business forms, letterhead, business logos, advertisements, organization charts, mail-order catalogs, three-fold brochures, and newsletters. This course is intended for the business professional, not the graphic artist. (Formerly BCIS 69.28/BCIS 13)
Transfer Credit: CSU

CIS 120
**WEB DESIGN WITH MICROSOFT FRONTPAGE**  1.5 UNITS
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: CIS 121 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course covers the features and capabilities of FrontPage. Students learn how to create Web pages with FrontPage. The Web designing projects provide a practical application of Web developments with a real world environment. (Formerly BCIS 76)
Transfer Credit: CSU
CIS 121
INTRODUCTION TO THE INTERNET 1.5 UNITS
Class hours: 3 lecture + 1 hr. lab. arr. (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will cover the fundamental features of the Internet. Students will learn how to access and use the Internet. Features covered in the course will include electronic mail, File Transfer Protocol (Anonymous FTP), Gopher, World Wide Web, newsgroups, BBS (Bulletin Board Service) and other resources. Research resources are available on the Internet. (Formerly BCIS 69.24/BCIS 82)
Transfer Credit: CSU

CIS 125
JAVASCRIPT PROGRAMMING 1.5 UNITS
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: CIS 205 and a knowledge in one programming language or equivalents with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course covers the JavaScript programming language. Students learn how to enhance the Web pages to be interactive, intelligent, and exciting with JavaScript. The course projects provide a practical application of Web page developments with a real world environment. (This course is not open to students who have taken BCIS 94.) (Formerly BCIS 91)
Transfer Credit: CSU

CIS 140
QUERY/400 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 141 or equivalent with a grade of Credit or "C" or higher.
This course will cover the fundamental operation and functions of data manipulation on the IBM AS/400. Query/400 will be used to select, arrange, and analyze information (data) stored in one or more databases. (Formerly BCIS 31)
Transfer Credit: CSU

CIS 141
AS/400 OPERATIONS 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 101 or equivalent with a grade of Credit or "C" or higher.
This course introduces the student to the operations of the IBM AS/400 Computer System using the OS/400 operating systems. The course includes the following topics: system security, job scheduling, backup/restore, work management, library management, object management, control management, and control language programming. (Formerly BCIS 69.23/BCIS 23)
Transfer Credit: CSU

CIS 142A
AS/400 OPERATIONS-PART 1 1.5 UNITS
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 101 or equivalent with a grade of Credit or "C" or higher.
This course introduces the student to the operations of the IBM AS/400 Computer System using the OS/400 operating system. The course includes the following topics: system security, job scheduling, job management, back/restore, work management, library management, object management, hardware architecture and configuration, software, device management, and control language. (Formerly BCIS 23.1)
Transfer Credit: CSU

CIS 142B
AS/400 OPERATIONS/PART 2 1.5 UNITS
Class hours: 3 lecture/2 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 101 or equivalent with a grade of Credit or "C" or higher.
This course introduces the student to the IBM AS/400 Computer System OS/400 database and file structure. This course will use IBM AS/400's Application Development Tools. The course includes the following topics: Source Editor Utility (SEU), Data File Utility (DFU), Program Development Manager (PDM), Screen Design Aid (SDA), Data Description Specifications, Data file structure and design, physical source file, Library, object, member structure, logical files, display files, menus and simple control language program. (Formerly BCIS 23.2)
Transfer Credit: CSU

CIS 151
MICROSOFT EXCEL 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides the skill and concepts needed to use the functions of the spreadsheet Microsoft Excel for Windows. The fundamentals of building worksheets include creating worksheets, formatting, functions, formulas, macros, data tables, analysis tools, templates, Wizards, and the creation of charts. Techniques to deal with multiple worksheets and large worksheets are covered. The database functions of Excel will include sorting, filtering, queries, macros, and record retrieval. Hands-on exercises are used to reinforce the functions of Excel. This course is not open to students who have taken both CIS 54A (Formerly BCIS 11.1) and CIS 54B (Formerly BCIS 11.2). (Formerly BCIS 69.29/BCIS 11)
Transfer Credit: CSU

CIS 155
MICROSOFT ACCESS 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: CIS 102 or equivalent with a grade of Credit or "C" or higher.
This is a course in microcomputer database management using Microsoft Access. It covers relational database design, techniques for building a database using queries, forms, reports, and expressions. Topics also include multiple-table queries and reports and the user interface to a database. (Formerly BCIS 69.25/BCIS 14)
Transfer Credit: CSU

CIS 170
PROGRAMMING IN BASIC 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: CIS 101 or CIS 102 or equivalent with a grade of Credit or "C" or higher.
This is an introductory course in programming microcomputers for business applications. Using Microsoft BASIC, students will develop the skills necessary to convert appropriate information processing requirements into workable computer programs. Discipline, structure and modularity will be stressed throughout the course. Students will learn how to follow a task from problem definition through the successful implementation of a computer program. Business applications will provide the frame-
work upon which programming skills will be built. Students will have “hands-on” access to business oriented microcomputer systems in a lab setting. Lab problems will be assigned and coded in Microsoft BASIC. Implementation of other languages on microcomputers will also be discussed. (Formerly BCIS 16)
Transfer Credit: CSU; UC

CIS 171
BUSINESS COMPUTER INFORMATION SYSTEMS OCCUPATION WORK EXPERIENCE 1 UNIT
Class hours: 1 hr/wk coordination class
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Business Computer Information Systems Occupational Work Experience or at least one other course during summer, in a computer-related major. One unit of Business Computer Information Systems Occupational Work Experience requires 60 non-paid hours of work or 75 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. First-semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Second-, third-, and fourth-semester students must secure departmental approval before enrolling. Students will meet weekly with their instructor until their participatory assignments and semester work projects have been approved. These courses may be taken for a maximum of 15-16 units. (Formerly BCIS 73/74)
Transfer Credit: CSU

CIS 172
BUSINESS COMPUTER INFORMATION SYSTEMS OCCUPATION WORK EXPERIENCE 2 UNITS
Class hours: 1 hr/wk coordination class
Prerequisite: None.
Corequisite: Enrollment in 7 or more units, including Business Computer Information Systems Occupational Work Experience or at least one other course during summer, in a computer-related major. Two units of Business Computer Information Systems Occupational Work Experience requires 120 non-paid hours of work or 150 paid hours of work per semester.
Recommendation: None.
Work Experience/Career Internship provides the opportunity for students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. First-semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. Second-, third-, and fourth-semester students must secure departmental approval before enrolling. Students will meet weekly with their instructor until their participatory assignments and semester work projects have been approved. This may be taken for a maximum of 6 units. (Formerly BCIS 172)
Transfer Credit: CSU

CIS 175
RPG PROGRAMMING 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: CIS 103 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
This is a basic course in applying the principles of data processing to standard business applications. The Report Program Generator language will be used, with emphasis on report preparation and file organization. (Formerly BCIS 57)
Transfer Credit: CSU

CIS 176
COBOL PROGRAMMING 3 UNITS
Class hours: 3 lecture + 1 hr. lab. arr.
Prerequisite: CIS 103 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
This is an introductory course in computer programming, utilizing the most frequently used procedural language for business applications—COBOL. COBOL is a “near English” language which provides for thorough documentation of the program, and enables programmers to program on all major manufacturers’ equipment with minimum of adjustment. The purpose, structure, content and specific rules of the language will be considered in detail. Business applications will be analyzed, flowcharted, coded and debugged using the computer. Structured programming concepts will be introduced. COBOL lab problems will be assigned. (Formerly BCIS 58)
Transfer Credit: CSU; UC

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
CIS 177 (CAN CSCI 12)  
PROGRAMMING IN PASCAL  4 UNITS  
Class hours:3 lecture/3 lab  
Prerequisite:MATH 80 or equivalent with a grade of Credit or “C” or higher and satisfactory score on the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.  
This is an introductory level computer programming course using the Pascal language. Topics include design of computer programs, data types, input and output, program control, structured data types, files, debugging techniques, functions, procedures, and data structures. (Formerly CPSC 87)  
Transfer Credit: CSU; UC  

CIS 178 (CAN CSCI 4)  
PROGRAMMING IN FORTRAN  3 UNITS  
Class hours:2 lecture/3 lab  
Prerequisite: MATH 140 or equivalent with a grade of Credit or “C” or higher and satisfactory score on the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.  
This is an introductory level programming course using the Fortran programming language. Emphasis is placed on engineering and mathematics applications. Topics include input/output techniques, declaration statements, data types, branching, looping, arrays, subroutines, functions, passing parameters, sorting and searching. (Formerly CPSC 80)  
Transfer Credit: CSU; UC  

CIS 179  
VISUAL BASIC PROGRAMMING  3 UNITS  
Class hours: 3 lecture/2 lab  
Prerequisite: None.  
Corequisite: None.  
Recommendation: CIS 105 and CIS 170 or equivalents with grades of Credit or “C” or higher.  
This is a course in designing and programming of the MS-Windows graphical user interface. Topics include standard interface design, event processing and control focus, data exchange, debugging and error handling. (Formerly CPSC 80)  
Transfer Credit: CSU; UC  

CIS 180  
PROGRAMMING IN C / C++  3 UNITS  
Class hours: 3 lecture/2 lab  
Prerequisite: CIS 103 or equivalent with a grade of Credit or “C” or higher.  
Corequisite: None.  
This course introduces C and C++ programming language structures. Topics include data types, operators, program control flow, arrays, functions, pointers, character strings, structures and pointers. This course also includes an introduction to object-oriented programming design. (This course is not open to students who have taken BCIS 95.) (Formerly BCIS 83)  
Transfer Credit: CSU; UC  

CIS 182  
JAVA PROGRAMMING  3.5 UNITS  
Class hours: 3 lecture/2 lab  
Prerequisite: None.  
Corequisite: None.  
Recommendation: Strongly recommend CIS 180 or equivalent with a grade of Credit or “C” or higher.  
This course covers the fundamentals of the JAVA programming language used to develop internet, intranet, and world wide web applications. Features of JAVA programming covered in this course include basic JAVA programming constructs, object-oriented programming, and graphical user interface. (Formerly BCIS 92)  
Transfer Credit: CSU  

CIS 185  
BUSINESS DATA COMMUNICATIONS SYSTEMS  3 UNITS  
Class hours: 3 lecture  
Prerequisite:CIS 101 or CIS 102 or equivalent with a grade of Credit or “C” or higher.  
This is an introductory course in data communications and distributed data processing. The course will include discussion on such subjects as types of communications links, data communication codes used in business, data transmission, business uses of multiplexing and concentrators, intelligent data networks and intelligent terminals, system configurations designed for business, and business uses of satellite communications. (Formerly BCIS 81)  
Transfer Credit: CSU  

CIS 188  
SQL PROGRAMMING  3 UNITS  
Class hours: 3 lecture/2 lab  
Prerequisite: None.  
Corequisite: None.  
Recommendation: CIS 105 or equivalent with a grade of Credit or “C” or higher.  
This course covers the concepts of designing, creating, and accessing Relational Database Management Systems using Structured Query Language (SQL). The database programming is based on Microsoft SQL. (Formerly BCIS 36)  
Transfer Credit: CSU  

CIS 205  
PROGRAMMING IN HTML FOR THE WORLD WIDE WEB  1.5 UNITS  
Class hours: 3 lecture/2 lab (9 weeks)  
Prerequisite: None.  
Corequisite: None.  
Recommendation: CIS 103 or CIS 121 or equivalent with a grade of Credit or “C” or higher.  
This course covers the fundamentals of the HTML (HyperText Markup Language) language used to construct pages and documents on the World Wide Web. Features of HTML covered in this course include basic page structure, formatting, linking, handling images, handling color, tables, frames, forms, external media, plug-ins, linked windows, dynamic documents, and image maps. (Formerly BCIS 97.1/BCIS 75)  
Transfer Credit: CSU  

CIS 207  
SQL PROGRAMMING  3 UNITS  
Class hours: 3 lecture +1 hr. lab. arr.  
Prerequisite: None.  
Corequisite: None.  
Recommendation: CIS 105 or equivalent with a grade of Credit or “C” or higher.  
This course covers the concepts of designing, creating, and accessing Relational Data Base Management Systems using Structured Query Language (SQL). The database programming is based on Microsoft SQL. (Formerly BCIS 36)  
Transfer Credit: CSU  

CIS 208  
LOCAL AREA NETWORKS  3 UNITS  
Class hours: 3 lecture/2 lab  
Prerequisite: None.  
Corequisite: None.  
Recommendation: CIS 56 or equivalent with a grade of Credit or “C” or higher.  
This course provides a study of various architectures, topologies, and protocols which combine to create local area networks (LANs), and the Novell Netware Operating System which controls network functionality. The students will learn workstation and file server utilities, installation of applications, attachment of peripherals, customization of the network, troubleshooting techniques, and network connections. (Formerly BCIS 80)  
Transfer Credit: CSU  

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
Announcement of Courses

CIS 212  
MICROSOFT WINDOWS NT  3 UNITS  
Class hours: 3 lecture/2 lab  
Prerequisite: CIS 56 and CIS 105 or equivalents with grades of Credit or “C” or higher.  
Corequisite: None.  
Recommendation: None.  
This is a course for system administrators who are responsible for installing and administering networks based on Windows NT. The student will learn how to install, configure, and optimize Windows NT, including network architecture, managing and sharing resources, network inter-operability and trouble shooting. (Formerly BCIS 78)  
Transfer Credit: CSU

CIS 210  
WINDOWS PROGRAMMING  3 UNITS  
Class hours: 3 lecture/2 lab  
Prerequisite: None.  
Corequisite: None.  
Recommendation: Strongly recommend CIS 180 or equivalent with a grade of Credit or “C” or higher.  
This course covers the development of basic windows operations using Windows development tools and object-oriented languages. Topics include keyboard/mouse input, system timer, memory management, graphics interface, data exchange, and message model. (Formerly BCIS 89)  
Transfer Credit: CSU

CIS 210A  
MICROSOFT WINDOWS NT - PART 1  1.5 UNITS  
Class hours: 3 lecture/2 lab  
Prerequisite: CIS 56 and CIS 105 or equivalents with grades of Credit or “C” or higher.  
Corequisite: None.  
Recommendation: None.  
This course provides students with the knowledge and skills necessary to perform post-installation and day-to-day Microsoft NT administrative tasks in single-domain and multiple-domain networks. In addition, it provides students the background to prepare them for the technical support of NT workstations and servers. This course incorporates a hands-on approach to learning the material. This course is intended for those who administer Microsoft Windows NT Server and Windows NT Workstation. This course is compliant with current industry certification. (Formerly BCIS 78.1)

CIS 214  
UNIX  3 UNITS  
Class hours: 3 lecture/2 lab  
Prerequisite: None.  
Corequisite: None.  
Recommendation: Knowledge of one operating system.  
This course is a comprehensive study of the UNIX operating system and its administration. Topics include UNIX commands, file manipulation and maintenance, user management, shell programming, configurations, back-up, security, and networking. (Formerly BCIS 39)  
Transfer Credit: CSU

CIS 220  
ADVANCED VISUAL BASIC  3.5 UNITS  
Class hours: 3 lecture/2 lab  
Prerequisite: CIS 179 or equivalent with a grade of Credit or “C” or higher.  
Corequisite: None.  
Recommendation: None.  
This course familiarizes the students with client/server database programming, OLE (Object Linking and Embedding), DDE (Dynamic Data Exchange), API (Application Programming Interface), ActiveX controls, multimedia, and object-oriented programming design. The students develop practical business applications. (Formerly BCIS 88)  
Transfer Credit: CSU

CIS 221  
ADVANCED RPG PROGRAMMING  3.5 UNITS  
Class hours: 3 lecture/1.5 lab  
Prerequisite: CIS 175 or equivalent with a grade of Credit or “C” or higher.  
Corequisite: None.  
This is a second course in the use of the RPG programming language in which emphasis is placed on using the more advanced features of the language. The course uses ILE (Integrated Language Environment) RPG IV version. The topics covered include: interactive application development, use of display files, interactive file maintenance, file structure, Screen Design Aid (SDA), Common User Access (CUA), advanced file handling, subfiles, field and character manipulation, modular program, modular program design, multiple program design applications, and interprogram communications. The class provides hands-on programming on the IBM AS/400 computer. This course is not open to students who have credit in BCIS 97.  
(Formerly BCIS 67)  
Transfer Credit: CSU

CIS 222  
ADVANCED COBOL PROGRAMMING  3 UNITS  
Class hours: 3 lecture/1 hr. lab. arr.  
Prerequisite: CIS 176 or equivalent with grades of Credit or “C” or higher.  
Corequisite: None.  
This course is designed to extend both the student’s skills in computer programming and their knowledge of the most frequently used language in business data processing. The emphasis will be on file processing and the advanced features of a high level implementation of COBOL including: COBOL Sort, Report Writer, Subroutine and Subprogram Linkage, COBOL Library, etc. (Formerly BCIS 71)  
Transfer Credit: CSU; UC

CIS 223  
ADVANCED VISUAL BASIC FOR MICROCOMPUTERS  4 UNITS  
Class hours: 3 lecture/3 lab  
Prerequisite: CIS 177 (Pascal) and CIS 180 (“C” Language), or CIS 178 (Fortran) or equivalent with grades of Credit or “C” or higher.  
This course is a detailed coverage of microcomputer architecture and instruction sets and how to use them to design and write assembly language programs. Topics will cover principles of assembly programming including functions, stacks, recursion, macros, input/output devices, precision arithmetic and logic design. (Formerly CPSC 82)  
Transfer Credit: CSU; UC

CIS 224  
AS/400 CONTROL LANGUAGE PROGRAMMING  3 UNITS  
Class hours: 3 lecture/2 lab  
Prerequisite: None.  
Corequisite: None.  
Recommendation: CIS 141 or equivalent with grades of Credit or “C” or higher is strongly recommended.  
This course covers the fundamental concepts required to develop control language programs for use on an IBM AS/400. Topics include: structured programming, program control, error handling, OS/400 concepts, and when to use CL programs. (Formerly BCIS 66)  
Transfer Credit: CSU

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CIS 251
ADVANCED SYSTEMS ANALYSIS AND DESIGN 3 UNITS
Class hours: 3 lecture + 1 hr. lab arr.
Prerequisite: CIS 201 or equivalent with a grade of Credit or “C” or higher.
This course is a study of theory and application of business data processing systems including the use of administrative tools and techniques. Emphasis is placed on planning practical computer information systems for information retrieval, business applications, operations research, and management control. (Formerly BCIS 90)
Transfer Credit: CSU

CIS 253
CLIENT/ SERVER DEVELOPMENT WITH POWERBUILDER 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: CIS 179 or CIS 180and CIS 105 or equivalents with grades of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This is a course in building client/server applications combining a windows-based graphical-user interface and a relational database using PowerBuilder. The students will learn the client/server development methodology and techniques, create applications and forms, and access data in relational databases. (Formerly BCIS 86)
Transfer Credit: CSU

CIS 280
OBJECT-ORIENTED PROGRAMMING IN C++ 3 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: CIS 179 or CIS 180 and CIS 105 or equivalents with grades of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This is a course in Object-Oriented Programming (OOP) using the C++ programming language. Topics presented include abstract data types, objects and classes, operator overloading, inheritance, constructors and destructors, pointers, member functions, virtual functions, the theory of object-oriented programming, and the techniques of object-oriented design. (Formerly BCIS 90)
Transfer Credit: CSU; UC

CIS 282
ADVANCED JAVA PROGRAMMING 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: Strongly recommend CIS 180 or equivalent with a grade of Credit or “C” or higher.
This course covers the JAVA Abstract Window Toolkit (AWT). Topics will include graphical user interface, graphics, multimedia, system management, networking, security, and database connectivity. (Formerly BCIS 93)
Transfer Credit: CSU

CIS 284
CGI AND PERL PROGRAMMING 3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: CIS 180 and CIS 205 or equivalents with grades of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course covers the Common Gateway Interface (CGI) and Perl programming. Students learn how CGI works and how to write Perl scripts to generate dynamic Web pages, process forms, search information, and provide informative responses. This course is not open to students who have already taken BCIS 94. (Formerly BCIS 93)
Transfer Credit: CSU

CIS 292
DATA STRUCTURES 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: CIS 179 or equivalent with a grade of Credit or “C” or higher.
Corequisite: MATH 101.
This course is designed for students in computer science to cover elementary data structures and advanced programming techniques using Pascal. Topics include arrays, stacks, queues, linked lists, trees, recursion, sorting, searching, and advanced applications. (Formerly CPSC 89)
Transfer Credit: CSU; UC

COMPUTERS IN BUSINESS
SEE CIS
(Computer and Information Sciences)

COSMETOLOGY
(Technology Division)

COS 1 (Not degree applicable)
COSMETOLOGY SALON PREPARATION 1 UNIT
Class hours: 56 semester lab hours (9 weeks)
Prerequisite: COS 50 or COS 60A and COS 60B or equivalent with grades of Credit or “C” or higher.
Corequisite: Enrollment in any one of the following: COS 51, 52, 61A, 61B, 62A or 62B.
This course is designed to permit the student to complete 1600 hours necessary to take the State Board of Cosmetology examination. It provides an opportunity for the student to continue developing manipulative skills in hair styling, hair coloring, permanent waving, chemical straightening, scalp treatments, facials, waxing, manicuring, pedicures, and thermal styling. This course may be taken for a maximum of 4 units. (Formerly COS 50)

COS 50
INTERMEDIATE COSMETOLOGY 9.5 UNITS
Class hours: 9.75 lecture/29.25 lab
Prerequisite: None.
Limitation on enrollment: Completion of 10th grade or equivalent.
Corequisite: None.
Recommendation: None.
This is an introductory course in the theoretical and related theory and manipulative skills pertaining to the field of cosmetology. It is designed to acquaint the students with and to develop their ability to perform the basic skills in hairstyling, hairsculpturing, haircoloring, permanent waving, manicuring, facials, and people skills. Emphasis will be placed on the Cosmetology Act, State Board Rules and Regulations, safety, sanitation, anatomy, and chemistry as it relates to the cosmetology profession. (Formerly COS 12)

COS 51
INTERMEDIATE COSMETOLOGY 19.5 UNITS
Class hours: 9.75 lecture/29.25 lab
Prerequisite: COS 50 or equivalent with a grade of Credit or “C” or higher.
This is an intermediate course in theory as it pertains to cosmetology. It provides an opportunity for the student to continue developing manipulative skills in thermal hairstyling, wet hairstyling, chemical waving, hairsculpturing, salesmanship, long hair-
styling, chemical relaxing, makeup, conditioning, manicuring, and to gain a knowledge of tricology, dermatology, and chemistry, as they relate to cosmetology. Haircoloring, hair design, and men’s hairstyling will also be studied. Emphasis is placed on professionalism and client relationships. (Formerly COS 22)

COS 52
ADVANCED COSMETOLOGY 19.5 UNITS
Class hours: 9.75 lecture/29.25 lab
Prerequisite: COS 51 or equivalent with a grade of Credit or “C” or higher.
This is an advanced course in theory as it pertains to cosmetology. It provides an opportunity for the student to continue developing manipulative skills in haircoloring, thermal hairstyling, competition styling, hairsculpturing, conditioning, reconstruction, chemical waving, chemical straightening, facials, makeup, and manicuring. Emphasis is placed on professionalism, client relationships and State Board examination preparation. (Formerly COS 32)

COS 53
ADVANCED COSMETOLOGY MANIPULATION 9 UNITS
Class hours: 9.75 lecture/29.25 lab (9 weeks)
Prerequisite: COS 52 or equivalent with a grade of Credit or “C” or higher.
This is an advanced course designed to permit the student to complete 1600 hours necessary to take the State Board of Cosmetology examination. It provides an opportunity for the student to continue developing manipulative skills in haircoloring, hairstyling, permanent waving, chemical straightening, scalp treatments, facials, waxing, manicuring, pedicuring, and thermal styling. This course may be repeated for a maximum of 18 units as necessary to complete 1600 hours. (Formerly COS 34.1)

COS 54
INTRODUCTORY ESTHETICIAN 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: Limited to enrollment: Completion of 10th grade or equivalent.
Corequisite: None.
This is an introductory course designed to develop basic skills and theoretical knowledge necessary to enter the licensed esthetician vocation. Students develop knowledge in theories of cosmetic chemistry, products, and their use and effect on skin. Students’ knowledge and ability are achieved in a minimum of 300 hours, through lecture, demonstrations and laboratory in a salon atmosphere. (Formerly COS 96.01/COS 83)

COS 54A
ADVANCED ESTHETICIAN 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: COS 54 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This class is an advanced portion of the esthetic program. It develops skills in electrical modalities, depilatory waxing, paraffin waxing, advanced massage techniques, and corrective make-up. Students develop skills in selecting appropriate facial treatments. The students’ ability and knowledge are to be achieved in a minimum of 300 hours through lecture and demonstration by working in a salon atmosphere. (Formerly COS 96.02/COS 84)

COS 60A
INTRODUCTORY COSMETOLOGY I 10 UNITS
Class hours: 5 lecture/15 lab
Limitation on enrollment: 10th grade education or equivalent.
This is an introductory course in the technical and related theory and manipulative skills pertaining to the field of cosmetology. It is designed to acquaint the student with, and to develop their ability to perform the basic skills in hairstyling, hairsculpturing, haircoloring, permanent waving, and manicuring. Emphasis will be placed on the Cosmetology Act, State Board Rules and Regulations, safety, sanitation, anatomy, and chemistry as they relate to the cosmetology profession. (Formerly COS 41)

COS 60B
INTRODUCTORY COSMETOLOGY II 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: COS 60A or equivalent with a grade of Credit or “C” or higher.
This is an introductory course in theory as it pertains to cosmetology. It provides an opportunity for the student to continue developing people skills, manipulative skills in haircolor, manicuring, scalp treatments, chemical waxing, hairsculpturing, and chemistry, hairdesign, permanent wave, press and curl, and chemical relaxing. Emphasis is placed on professionalism, client relationships, and people skills. (Formerly COS 44)

COS 61A
INTERMEDIATE COSMETOLOGY I 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: COS 60B or equivalent with a grade of Credit or “C” or higher.
This is an intermediate course in theory as it pertains to cosmetology. It provides an opportunity for the student to continue developing manipulative skills in thermal hairstyling, wet hairstyling, chemical waving, hairsculpturing, salesmanship, long hairstyling, chemical relaxing, make-up, conditioning, manicuring, and to gain knowledge of tricology, dermatology, and chemistry, as they relate to cosmetology. People skills, press and curl, hair design, and men’s hairstyling will also be studied. Emphasis is placed on professionalism and client relationships. (Formerly COS 43)

COS 61B
INTERMEDIATE COSMETOLOGY II 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: COS 61A or equivalent with a grade of Credit or “C” or higher.
This is an intermediate course in theory as it pertains to cosmetology. It provides an opportunity for the student to continue developing people skills, manipulative skills in haircolor, manicuring, scalp treatments, chemical waxing, hairsculpturing, and chemistry, hairdesign, permanent wave, press and curl, and chemical relaxing. Emphasis is placed on professionalism, client relationships, and people skills. (Formerly COS 44)

COS 62A
ADVANCED COSMETOLOGY I 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: COS 61B or equivalent with a grade of Credit or “C” or higher.
This is an advanced course in theory as it pertains to cosmetology. It provides an opportunity for the student to continue developing manipulative skills in haircoloring, thermal hairstyling, competition styling, hairsculpturing, conditioning, reconstruction, chemical waving, chemical straightening, facials, make-up, and manicuring. Emphasis is placed on professionalism, client relationships and State Board examination preparation. (Formerly COS 45)
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COS 62B
ADVANCED COSMETOLOGY II 10 UNITS
Class hours: 5 lecture/15 lab
Prerequisite: COS 62A or equivalent with a grade of Credit or “C” or higher.
This is an advanced course in theory as it pertains to cosmetology. It provides an opportunity for the student to continue developing manipulative skills in hair coloring, thermal hairstyling, competition styling, hair sculpturing, conditioning, reconstruction, chemical waving, chemical straightening, facials, make-up, and manicuring. Emphasis is placed on professionalism, client relationships and State Board examination preparation. (Formerly COS 46)

COS 70A (Summer only)
INTRODUCTORY COSMETOLOGY 8 UNITS
Class hours: 9.38 lecture/28.13 lab (8 weeks)
Prerequisite: None. (8 weeks)
Limitation on enrollment: 10th grade education or equivalent.
Corequisite: None.
Recommendation: None.
This is an introductory course in the technical and related theory and manipulative skills pertaining to the field of cosmetology. It is designed to acquaint the student with and to develop their ability to perform the basic skills in hairstyling, hair sculpturing, hair coloring, permanent waving, manicuring, and facials. Emphasis will be placed on the Cosmetology Act, State Board Rules and Regulations, safety, sanitation, anatomy, and chemistry as it relates to the cosmetology industry. (Formerly COS 15.1)

COS 70B (Summer only)
INTERMEDIATE COSMETOLOGY 8 UNITS
Class hours: 9.38 lecture/28.13 lab (8 weeks)
Prerequisite: COS 50 or equivalent with a grade of Credit or “C” or higher.
This is an intermediate course in technical and related theory as it pertains to cosmetology. It provides an opportunity for the student to continue developing manipulative skills in hair coloring, thermal hairstyling, chemical waving, chemical straightening, facials, make-up, and manicuring. Emphasis is placed on professionalism and personal/client relationships. (Formerly COS 15.2)

COS 70C (Summer only)
ADVANCED COSMETOLOGY MANIPULATION 8 UNITS
Class hours: 9.38 lecture/28.13 lab (8 weeks)
Prerequisite: COS 51 or equivalent with a grade of Credit or “C” or higher.
This is a course in theory as it pertains to cosmetology. It provides an opportunity for the student to continue developing manipulative skills in hair coloring, thermal hairstyling, competition styling, hair sculpturing, conditioning, reconstruction, chemical waving, chemical straightening, facials, make-up, and manicuring. Emphasis is placed on professionalism, client relationships and State Board examination preparation. This course may be taken for a maximum of 8 units as necessary to complete 1600 hours. (Formerly COS 23.3)

COUNSELING AND GUIDANCE
(Counseling Division)

CG 1 (Not degree applicable)
CAREER PLANNING 1 UNIT
Class hours: 2 hours per week (9 weeks)
Prerequisite: None.
This course is designed to help the student approach career decisions in a systematic way. A variety of techniques are used to assess individual characteristics and relate these to occupational information. At times, sections may be offered which emphasize particular types of situations such as the person making initial career decisions, midlife career changes, and minority programs. (Formerly CG 2)

CG 2 (Not degree applicable)
SELF AWARENESS TOWARDS EDUCATIONAL READINESS 2 UNITS
Class hours: 6 lecture/10 lab (Summer only) (6 weeks)
Prerequisite: None.
This course is designed to aid the student in identifying and evaluating individual, educational, and vocational ability. Self-awareness techniques will be used to enhance this assessment process. This class is designed primarily for the EOPS summer students, but is open to all interested students. Field work experience will assist the student to develop skills that enhance his/her work performance. (Ten hours field work for those employed as work study or equivalent volunteer experience as approved by instructor. This course may be taken for a maximum of 4 units. (Formerly CG 4)

CG 3 (Not degree applicable)
ORIENTATION FOR THE STUDENT WITH DISABILITIES 1 UNIT
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
This course is designed to orient the disabled student to the varied programs and services offered by Cerritos College. An IEP/learning contract will be developed for each student.

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who enrolls in this course. Emphasis is on assisting the disabled student to successfully integrate into all aspects of the college. (Formerly CG 7)

**CG 4 (Not degree applicable)**  
**CAREER EXPLORATION FOR THE STUDENT WITH DISABILITIES 1 UNIT**  
Class hours: 2 lecture (9 weeks)  
Prerequisite: None.  
This course is designed to assist the disabled student in the process of developing goals for future employment. An Individual Educational Plan (IEP)/learning contract will be developed for each student who enrolls in this course. Emphasis is upon exploring career choices, assessment of interests, and the development of employment seeking skills. (Formerly CG 8)

**CG 5 (Not degree applicable)**  
**PERSONAL ASSESSMENT FOR THE STUDENT WITH DISABILITIES 1 UNIT**  
Class hours: 2 lecture (9 weeks)  
Prerequisite: CG 3 or equivalent with a grade of Credit or “C” or higher.  
This course is designed to assist the student with disabilities to develop personal assessment techniques. The course will present concepts and methods of self-evaluation and personal action including goal setting, time management, making choices, achieving objectives and self advocacy. (Formerly CG 9)

**CG 6 (Not degree applicable)**  
**FAMILY LIVING FOR THE STUDENT WITH DISABILITIES 1 UNIT**  
Class hours: 2 lecture (9 weeks)  
Prerequisite: None.  
This class is designed to explore the various aspects of family life from the viewpoint of the disabled person. An Individual Educational Plan (IEP)/learning contract will be developed for each student who enrolls in this course. Sexuality, marriage and parenting will be addressed. This course may be taken for a maximum of 4 units. (Formerly CG 11)

**CG 50**  
**ORIENTATION AND EDUCATIONAL PLANNING 0.5 UNITS**  
Class hours: 1.5 lecture (6 weeks)  
Prerequisite: None.  
Corequisite: None.  
Recommendation: None.  
This course is designed to introduce students to Services offered at Cerritos College; the history and mission of the system of post-secondary education system in California; policies and procedures which affect students at Cerritos College; educational planning, including major and general education requirements, course sequencing, and transfer requirements for the California State University and University of California systems. As part of the course, students will tour the Cerritos College campus, acquainting themselves with the location and function of various offices and service providers. Each student will produce an educational plan specific to her or his educational goal. This course is offered on a credit/no credit basis only. (Formerly CG 21)  
Transfer Credit: CSU

**COURT REPORTING**

**CA 15**  
**CERTIFICATION FOR FOOD HANDLERS 0.5 UNIT**  
Class hours: 3 lecture (3 weeks)  
Prerequisite: None.  
Corequisite: None.  
Recommendation: None.  
This course covers the principles of food handling. It is a National Restaurant Association ServSafe course and meets current requirements established by regulatory agencies for a certified food handler. This course is offered on a credit/no credit basis only. (Formerly CA 1.5)

**CA 43/44 (Not degree applicable)**  
**OCCUPATIONAL WORK EXPERIENCE 3-4 UNITS**  
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Culinary Arts work experience 73 or 20 hours of employment per week for Culinary Arts work experience 74. The employment must be in a job related to the student's educational goal.  
Prerequisite: None.  
Corequisite: (1) Enrollment in the Culinary Arts vocational program with 7 or more units including occupational work experience.  
Occupational Work Experience is a supervised employment program in an approved work station related to the student's declared major. Students meet with their instructor for a minimum of one hour per week and will receive credit for on-the-job learning experiences that are new or are an expansion of their regular responsibilities. This course may be repeated for a maximum of 8 units based on the number of hours on the job. (Formerly CA 73/74)
CA 50
DINING ROOM SERVICE 2 UNITS
Class hours: 3 lecture/4 lab (9 weeks)
Prerequisite: A tuberculosis test, within the last six months, validating absence of infection.
Corequisite: None.
Recommendation: CA 15 or CA 101 or equivalent with a grade of Credit or “C” or higher.
This course introduces the student to professional waiter/waitress service. The student will develop basic skills utilized in all areas in front of the house restaurant operations including service, guest relations, classic styles, and etiquette. (Formerly CA 5)

CA 50A
DINING ROOM MANAGEMENT 2 UNITS
Class hours: 3 lecture/4 lab (9 weeks)
Prerequisite: CA 50 or equivalent with a grade of Credit or “C” or higher. A tuberculosis test, within the last six months, validating absence of infection.
Corequisite: None.
Recommendation: CA 15 or CA 101 or equivalent with a grade of Credit or “C” or higher.
This course continues the students’ training to professional dining room management level. The student will develop further guest relations skills in a real restaurant setting. Extensive knowledge of bar and beverage service and cash handling will be emphasized. (Formerly CA 5.1)

CA 52
FOOD PRODUCTION 9.5 UNITS
Class hours: 3 lecture/20 lab
Prerequisite: CA 101 or equivalent with a grade of Credit or “C” or higher or concurrent enrollment.
This course introduces the beginning student to food products and ingredients and develops basic cooking skills used in commercial kitchens. An introduction to dining room service is also included. The preparation and uses of meats, vegetables, fruits, salads, sandwiches, garnishes, dressing, grilling, deep-fat frying, pan frying, and broiling are included. (Formerly CA 2)

CA 53
COMMERCIAL FOOD PRODUCTION: PANTRY ITEMS 9.5 UNITS
Class hours: 3 lecture/20 lab
Prerequisite: CA 52 and CA 101 or equivalent with grades of Credit or “C” or higher.
This is a basic course in fundamentals of hotel and restaurant dinner cooking and methods of preparing special pantry items. Lecture/demonstrations and practical experiences in varied methods of cooking techniques are an essential part of this course. (Formerly CA 3)

CA 54
COMMERCIAL FOOD PRODUCTION: MEATS & POULTRY 9.5 UNITS
Class hours: 3 lecture/20 lab
Prerequisite: CA 53 or equivalent with a grade of Credit or “C” or higher.
This course is designed to familiarize the student with the principles and procedures of hotel restaurant butchering, meat purchasing, and the carving of meats and poultry. Includes lecture/demonstration and practical experience in carving procedures, trimming, boning, rolling, tying, and cutting of steaks and chops. (Formerly CA 4)

CA 60
FOODS PURCHASE AND CONTROL 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: CA 101 or equivalent with a grade of Credit or “C” or higher.
Instruction and experience in the areas of forecasting operational needs, menu pricing, food purchasing, and cost control are included. (Formerly CA 6)

CA 80
INTRODUCTION TO BAKING SKILLS 4 UNITS
Class hours: 2 lecture/6 lab
Prerequisite: None.
Corequisite: CA 101 or equivalent with a grade of Credit or “C” or higher or concurrent enrollment.
This course introduces the student to baking techniques used in the baking industry. It includes formulation and mixing of raw materials and presentation of design. (Formerly CA 4)

CA 81
PROFESSIONAL BAKING AND PASTRY PRODUCTION I 5 UNITS
Class hours: 3 lecture/7 lab
Prerequisite: CA 80 and CA 101 or equivalent with grades of Credit or “C” or higher.
This course introduces the student to the baking industry; baked products, and ingredients. The student will develop basic skills utilized in professional bakeries. Demonstration and practical experiences in the preparation and use of doughs, pastries and creams, adjusting standard recipes, and

interpretive use of weights and measures are included. A negative T.B. test for food service personnel is a State regulation. (Formerly CA 11)

CA 82
PROFESSIONAL BAKING AND PASTRY PRODUCTION II 5 UNITS
Class hours: 3 lecture/7 lab
Prerequisite: CA 81 or equivalent with a grade of Credit or “C” or higher.
Corequisite: CA 85
This advanced baking course provides the opportunity to increase skills in producing a more uniform product, with high eye appeal, and improved taste and structure. These products include cakes, pastries, icings, fillings, and specialty breads and rolls. Processed frozen dough, fried products, and frozen baked products are introduced. Maintaining product freshness is emphasized. A negative T.B. test for food service personnel is a State regulation. (Formerly CA 12)

CA 85
ADVANCED PROFESSIONAL PASTRY DESIGN AND DECORATING 3 UNITS
Class hours: 3 lecture
Prerequisite: CA 81 or equivalent with a grade of Credit or “C” or higher.
Corequisite: CA 82
This advanced professional baking course emphasizes different preparation and decorating techniques utilized in the baking industry. It includes formulation and mixing of icing materials and presentation of design. A negative T.B. test for food service personnel is a State regulation. (Formerly CA 13)

CA 101
INTRODUCTION TO FOOD SERVICE, SAFETY & SANITATION 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
This course covers the principles of food microbiology, important foodborne diseases, standards that are enforced by regulatory agencies, and applied measures for the prevention of foodborne diseases and other microbiological problems. This course meets current food protection standards for regulatory agents. (Formerly CA 1)
Transfer Credit: CSU
Announcement of Courses

CA 120
INTRODUCTION TO
HOSPITALITY  3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an overview of the hospitality industry and its various segments. Course content will include history, organizations, trends, and job opportunities.
Transfer Credit: CSU

DENTAL ASSISTING
(Health Occupations Division)

DA 1  (Not degree applicable)
DENTAL RADIATION SAFETY
LICENSING  1.5 UNITS
Class hours: 4 lecture/5 lab  (6 weeks)
Prerequisite: Verification of non-reactive T. B. skin test or negative chest x-ray within the last year. Verification of a minimum of 480 hours of work experience as a dental assistant.
Corequisite: None.
Recommendation: None.
This course prepares the working dental assistant with theories and techniques of intra-oral and extra-oral radiography including application to a variety of patients. Upon satisfactory completion of this course, the student will receive a California Radiation License. This course may be taken for a credit/no credit basis only. (Formerly DA 40)

DA 51
APPLIED DENTAL SCIENCE I  4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: Admission to the Dental Assisting Program.
This course is an introduction to the application of basic dental sciences and infection control. It includes dental terminology, microbiology, anatomy of the head and neck, oral physiology, tooth morphology, preliminary oral examination, taking impressions for study models, and pouring models. It also includes procedures in managing asepsis, infection and hazard control consisting of maintenance, disinfection and sterilization of equipment, supplies, and disposal of hazardous waste pertaining to patient care.

DA 52
DENTAL RADIOGRAPHY I  2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: Admission to the Dental Assisting Program.
This course is a study of the dental x-ray, the characteristics and methods of controlling x-ray exposure. It includes modern intra-oral dental and extra-oral radiographic techniques, arrangement and care of the darkroom equipment, composition and preparation of solutions, procedures for processing films, and mounting films. The student will practice on the manikin exposing films using radiation protection and safety guidelines.

DA 53
INTRODUCTION TO CHAIRSIDE ASSISTING  3 UNITS
Class hours: 2 lecture, 3 lab
Prerequisite: Admission to the Dental Assisting Program.
Corequisite: DA 54.
This course involves instruction in the role and responsibilities of the chairside assistant. It includes basic qualifications, preparing the patient for treatment, taking of a health history, charting, terminology, positioning of the patient-operator-auxiliary for four-handed dental procedures, assisting with administration of local anesthetic agents, placement of a rubber dam, instrument exchange, oral evacuation, retraction, illumination, and assisting with endodontic procedures. Cardiopulmonary resuscitation is included as part of the course content.

DA 54
INTRODUCTION TO OPERATORY PROCEDURES  4 UNITS
Class hours: 2 lecture, 6 lab
Prerequisite: Admission to the Dental Assisting Program.
Corequisite: DA 53.
This course includes manikin instruction in the techniques, materials, and instrumentation for assisting in operative dental procedures such as amalgam and composite restorations, gold inlays and crowns, and fixed bridges. An introduction to intra-oral tasks delegated to registered dental assistants which are related to operative dentistry, such as matrix placement, placement of bases and liners, placement of plastic temporary restorations, and removal of excess cement is also provided.

DA 61
APPLIED DENTAL SCIENCE II  3 UNITS
Class hours: 2 lecture, 3 lab
Prerequisite: DA 51 or equivalent with a grade of Credit or “C” or higher.
Corequisite: DA 63.
This course includes a study of oral pathology, nitrous oxide, pharmacology and the influences of dental medicines on the body systems. Post-injection complications and medical emergencies are included. Emphasis is also placed on preventive dentistry with instruction in four preventive measures: use of fluorides, regular dental examinations, daily practice of effective oral hygiene, good nutrition, and control of food habits. Instruction and supervision of a plaque control program will be achieved through clinical experience with focus on the identification of calculus, plaque, and stains, applying disclosing agents, and polishing exposed surfaces of the teeth. The student will also develop and implement a community dental health project.

DA 62
DENTAL RADIOGRAPHY II  2 UNITS
Class hours: 1 lecture, 3 lab
Prerequisite: DA 52 or equivalent with a grade of Credit or “C” or higher.
The student will be instructed in advance techniques of dental radiography, anatomical landmarks and dental anatomy pertaining to dental radiography with emphasis placed on evaluation of films. The student will practice taking full mouth radiographs for diagnosis by a dentist. Operation of panoramic equipment will also be included.

DA 63
ADVANCED CHAIRSIDE ASSISTING  4 UNITS
Class hours: 2 lecture, 6 lab
Prerequisite: DA 53 and DA 54 or equivalent with grades of Credit or “C” or higher.
Corequisite: DA 65.
This course includes instruction in the specialties of dentistry and armamentarium required in each specialty. Laboratory content includes development of preclinical skills in the extended functions which are required for the Registered Dental Assistant.
DA 64  
DENTAL OFFICE MANAGEMENT 2 UNITS  
Class hours: 1 lecture, 3 lab  
Prerequisite: DA 51 or equivalent with a grade of Credit or “C” or higher.  
This course includes instruction in the non-clinical functions which are integral to the dental office. Subject areas include office communications, scheduling appointments, making financial arrangements, recall, completing insurance forms, record keeping, inventory, bookkeeping, marketing strategies, the use of computers, and other related skills required of a secretarial dental assistant.

DA 65  
CLINICAL I DENTAL SCHOOLS 3 UNITS  
Class hours: 1 lecture, 7 lab  
Prerequisite: DA 53, DA 54 or equivalent with grades of Credit or “C” or higher.  
Corequisite: DA 61, 62, and 63.  
This course includes the practice of dealing with patients and working with dental students in four-handed dental procedures. The clinical instruction in this course is conducted at dental schools. Emphasis is placed on general operative dentistry, endodontics, and treating emergency patients. Weekly seminars are devoted to the evaluation of the clinical experience which includes techniques, patients' special needs, and communicating with patients and staff.

DA 75  
CLINICAL II COOPERATIVE OFFICE TRAINING 5 UNITS  
Class hours: Lecture total semester hours 20, lab total semester hours 192  
Prerequisite: DA 65 or equivalent with a grade of Credit or “C” or higher.  
This course includes the practice of working as a member of the dental team in community dental offices under the direct supervision of dentists. Emphasis is placed on general practice procedures, specialty areas, and the clinical application of intraoral tasks assigned to the registered dental assistant. Proficiency of all skills in the use of equipment is emphasized. The students will develop a professional attitude in all phases of dental assisting, including legal and ethical aspects of dental practice. Weekly seminars are held to evaluate and review clinical applications. Preparation for the certification and Registered Dental Assistant examinations will be included.

DENTAL HYGIENE  
(Health Occupations Division)

DH 110  
PREVENTIVE DENTISTRY I 2 UNITS  
Class hours: 2 lecture  
Prerequisite: Admission to the Dental Hygiene Program. A valid adult, child and infant CPR card including two-person CPR.  
This course introduces the student to the concept of optimum oral health care through plaque control, preventive dentistry and the role of the auxiliaries on the dental health team. Emphasis is placed on oral hygiene practices and patient motivation. Also included are etiology of soft and hard deposits, and patient instruction in plaque control care. (Formerly DH 10)  
Transfer Credit: CSU

DH 111  
INFECTION CONTROL AND DENTAL OFFICE EMERGENCIES 2 UNITS  
Class hours: 2 lecture  
Prerequisite: Acceptance into Dental Hygiene Program.  
Corequisite: DH 115C.  
This course covers the basic principles of infection control and the application of "universal precautions" in the dental health care setting. Included in this course is the selection and use of procedures and products to prevent the spread of infectious diseases in the practice of dental hygiene. Specific step-by-step procedures and current regulatory mandates related to infection control and the management of hazardous materials will be covered in detail. In addition, knowledge and skills related to preparedness for the prevention of medical emergencies in the dental setting will be covered. (Formerly DH 11)  
Transfer Credit: CSU

DH 114  
DENTAL HYGIENE CLINICAL SCIENCES I 2 UNITS  
Class hours: 2 lecture  
Prerequisite: Admission to the Dental Hygiene Program.  
Corequisite: DH 115C.  
This course introduces the student to the methodology and rationale for patient assessment and data collection. It includes patient histories, determination of vital signs, extraoral and intraoral examination, examination of the gingival and periodontal tissues, examination of the teeth and appropriate documentation of the data. The student will receive essential information for assessment of a patient prior to the formulation of the dental hygiene treatment service plan. (Formerly DH 14)  
Transfer Credit: CSU

DH 115C  
PRE-CLINICAL DENTAL HYGIENE I 2 UNITS  
Class hours: 6 lab  
Prerequisite: Admission to the Dental Hygiene Program.  
Corequisite: DH 114.  
This course provides the student with the pre-clinical and clinical experience designed to develop thorough and efficient dental instrumentation techniques for comprehensive oral hygiene services. (Formerly DH 15)  
Transfer Credit: CSU

DH 116  
HEAD AND NECK ANATOMY 2 UNITS  
Class hours: 2 lecture/1 lab  
Prerequisite: Admission to the Dental Hygiene Program.  
Corequisite: DH 119.  
This course is a detailed study of the anatomy and physiology of the human head and neck. Emphasis is placed on the correlation of structure and function especially where applicable to clinical dental hygiene. (Formerly DH 16)

DH 119  
DENTAL EMBRYOLOGY, HISTOLOGY, AND ANATOMY 2 UNITS  
Class hours: 2 lecture/1 lab  
Prerequisite: Admission to the Dental Hygiene Program.  
Corequisite: DH 115C and DH 116.

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DH 126
GENERAL AND ORAL PATHOLOGY 2 UNITS
Class hours: 3 lecture/lab
Prerequisite: DH 112, DH 116 and DH 119 or equivalent with grades of Credit or "C" or higher.
Corequisite: DH 125C.
This course includes an in-depth study of the principles of general pathology and the specifics of oral pathology. Emphasis is placed on the clinical recognition, differential diagnosis, and treatment of oral pathologic conditions and associated systemic disorders. (Formerly DH 26)
Transfer Credit: CSU

DH 127
PHARMACOLOGY 2 UNITS
Class hours: 2 lecture
Prerequisite: DH 115C, DH 116, and DH 119 or equivalent with grades of Credit or "C" or higher.
Corequisite: DH 125C, DH 126, and DH 128.
This course covers the general principles of pharmacology, use of therapeutic agents utilized in dental practice, an overview of medically prescribed drugs used by dental patients and a background of contemporary pharmacologic issues which concern the consumer. (Formerly DH 27)
Transfer Credit: CSU

DH 128
MANAGEMENT OF PAIN 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: DH 115C, DH 116, and DH 119 or equivalent with grades of Credit or "C" or higher.
Corequisite: DH 125C and DH 127.
This course is designed to teach the student management of pain control through the use of local anesthetic agents and the administration of nitrous oxide and oxygen when used as a sedative. The physiology and pharmacology agents, indications and contra-indications for use, and the treatment of complications and emergencies are stressed. Other modalities of pain control will be discussed. (Formerly DH 28)
Transfer Credit: CSU

DH 129
APPLIED PERIODONTICS 2 UNITS
Class hours: 2 lecture
Prerequisite: DH 114 or equivalent with a grade of Credit or "C" or higher.
Corequisite: DH 125C.
This course is designed to provide the student with a thorough understanding of the role of the hygienist in the treatment of periodontal disease. The normal periodontium, the pathogenesis of periodontal disease, etiology, and therapy are studied in detail. Soft tissue curettage and root planing are emphasized. (Formerly DH 29)
Transfer Credit: CSU

DH 150
CLINICAL DENTAL HYGIENE II 1 UNIT
Class hours: 3 lab
Prerequisite: DH 125C or equivalent with a grade of Credit or "C" or higher.
This course provides the student with clinical experiences in the delivery of dental services on patients, utilizing instructor assisted guided discovery learning methodology. Students are scheduled at select contract dental facilities. (Formerly DH 25.2)
Transfer Credit: CSU

DH 232L
DENTAL MATERIALS LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisite: None.
Corequisite: DH 245C.
This course emphasizes the reasons specific dental materials are employed and the ways in which they react to the oral environment. Biological considerations in the selection and utilization of various dental materials are stressed. The course is designed to provide the dental hygiene student with an understanding of laboratory techniques and chairside procedures commonly encountered in dentistry. (Formerly DH 32)
Transfer Credit: CSU

DH 234
DENTAL CARE FOR THE SPECIAL PATIENT 2 UNITS
Class hours: 2 lecture
Prerequisite: DH 125C and DH 127 or equivalent with grades of Credit or "C" or higher.
Corequisite: DH 235C.
This introductory course for dental hygiene care of the medically compromised and older adult patient covers basic information on disease entities which cause disabilities and are common in the older person. Emphasis will be on recognition of medical precautions, medications which affect oral health, barriers and access to oral health care, and prevention and treatment of oral diseases. (Formerly DH 34)
Transfer Credit: CSU
DH 235
DENTAL HYGIENE CLINICAL
SCIENCES III 2 UNITS
Class hours: 2 lecture
Prerequisite: DH 125C or equivalent with a grade of Credit or “C” or higher.
Corequisite: DH 235.
This course is designed to support Clinical Dental Hygiene III. It is intended to allow for further studies in advanced periodontal treatment. (Formerly DH 35.1)
Transfer Credit: CSU

DH 238
COMMUNITY DENTAL HEALTH LABORATORY I 1 UNIT
Class hours: 12 lab/clinic
Prerequisite: DH 110 or equivalent with a grade of Credit or “C” or higher.
This course is designed to provide the student with an opportunity to deliver dental health education to children in the community. Students will be assigned to elementary school classrooms and will prepare lesson plans, behavioral objectives, and plan of evaluation, to be used in presenting subject matter to the children. (Formerly DH 38)
Transfer Credit: CSU

DH 239
DENTAL HEALTH EDUCATION AND RESEARCH I 2 UNITS
Class hours: 2 lecture
Prerequisite: DH 110 or equivalent with a grade of Credit or “C” or higher.
Corequisite: DH 120 and DH 238.
This course provides a basic introduction to the principles of health education and research. Emphasis will be placed on the teaching/learning process, pedagogy effective with a diverse population of elementary school children, and research methodology for the development of a scientific poster session suitable for presentation in the dental community. (Formerly DH 39)
Transfer Credit: CSU

DH 244
ETHICAL ISSUES IN DENTAL HYGIENE 2 UNITS
Class hours: 2 lecture
Prerequisite: DH 235C or equivalent with a grade of Credit or “C” or higher.
Corequisite: DH 245C.
This course investigates ethical issues, dilemmas, and the State Dental Practice Act that affect the standards of behavior for the dental hygienist. Principles of general and biomedical ethics are applied to common examples of situations faced by dentists and hygienists in today’s dental practice. (Formerly DH 44)
Transfer Credit: CSU

DH 245
DENTAL HYGIENE CLINICAL SCIENCES IV 2 UNITS
Class hours: 2 lecture
Prerequisite: DH 235C or equivalent with a grade of Credit or “C” or higher.
Corequisite: DH 245C.
This course is designed to support Clinical Dental Hygiene IV and prepare the students for the National Board Dental Hygiene Examination. Current dental treatment philosophies and technological advances in dentistry are presented through case-based problem simulations. In addition, the subject of myofunctional evaluation and therapeutic treatment modalities will be introduced. (Formerly DH 45.1)
Transfer Credit: CSU

DH 248L
COMMUNITY DENTAL HEALTH LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisite: DH 238 and DH 239 or equivalent with grades of Credit or “C” or higher.
Corequisite: DH 249.
This course is designed to provide the student with an opportunity to deliver dental health education to a variety of age groups in the community. Emphasis will be on student knowledge and initiative in the design, implementation, and evaluation of a dental health program of his/her choice for an adult group in the community. Additionally, table clinics on a current dental topic of interest will be presented in the community. (Formerly DH 48)
Transfer Credit: CSU

DH 249
DENTAL HEALTH EDUCATION AND RESEARCH II 2 UNITS
Class hours: 2 lecture
Prerequisite: DH 239 or equivalent with a grade of Credit or “C” or higher.
Corequisite: DH 248L.
This course introduces basic concepts of dental public health including oral epidemiology, health care delivery and related research. Teaching/learning philosophies and strategies appropriate for dental health education of diverse adult populations are stressed. (Formerly DH 49)
Transfer Credit: CSU

DH 250
CLINICAL DENTAL HYGIENE V 1 UNIT
Class hours: 3 lab
Prerequisite: DH 245C or equivalent with a grade of Credit or “C” or higher.
This course is designed to provide clinical experiences and class discussion in preparation for the California State Board Dental Hygiene Licensure Examination. Emphasis will be placed on utilization of State Board criteria to determine eligibility of acceptable patients. (Formerly DH 55)
Transfer Credit: CSU

All courses on this page are Title V Associate Degree applicable credit courses unless otherwise noted.
DIRECTED STUDIES

Directed Studies in any combination may be taken for a maximum of 6 units.

DS 98
DIRECTED STUDIES 1 UNIT
Class hours: 3 lab
Prerequisite: A previous college course in the discipline.
A course to provide opportunity for individual research and field projects under the direction of a faculty member in a given department. With the guidance of the faculty member, students prepare and carry out a written learning agreement describing the purposes and outcomes of the project. Students should expect to meet with the supervising faculty member one to two hours each week for conferences. Credit is based upon the number of hours in the semester expected to complete the project (1 unit for 54 hours, 2 units for 108 hours).

DS 99
DIRECTED STUDIES 2 UNITS
Class hours: 6 lab
Prerequisite: A previous college course in the discipline.
A course to provide opportunity for individual research and field projects under the direction of a faculty member in a given department. With the guidance of the faculty member, students prepare and carry out a written learning agreement describing the purposes and outcomes of the project. Students should expect to meet with the supervising faculty member one to two hours each week for conferences. Credit is based upon the number of hours in the semester expected to complete the project (1 unit for 54 hours, 2 units for 108 hours).

DS 298
DIRECTED STUDIES 1 UNIT
Class hours: 3 lab
Prerequisite: A previous college course in the discipline.
A course to provide opportunity for individual research and field projects under the direction of a faculty member in a given department. With the guidance of the faculty member, students prepare and carry out a written learning agreement describing the purposes and outcomes of the project. Students should expect to meet with the supervising faculty member one to two hours each week for conferences. Credit is based upon the number of hours in the semester expected to complete the project (1 unit for 54 hours, 2 units for 108 hours).

DS 299
DIRECTED STUDIES 2 UNITS
Class hours: 6 lab
Prerequisite: A previous college course in the discipline.
A course to provide opportunity for individual research and field projects under the direction of a faculty member in a given department. With the guidance of the faculty member, students prepare and carry out a written learning agreement describing the purposes and outcomes of the project. Students should expect to meet with the supervising faculty member one to two hours each week for conferences. Credit is based upon the number of hours in the semester expected to complete the project (1 unit for 54 hours, 2 units for 108 hours).

Transfer Credit: CSU

DRAFTING

(Continued Division)

DRAF 16
BLUEPRINT READING FOR MACHINE TRADES 2 UNITS
Class hours: 1.5 lecture, 1.5 lab
Prerequisite: None.
This course is a study of working drawings and blueprints used in manufacturing. Emphasis is placed on the ability to visualize and interpret typical drawings. Research is required into standards, specifications, procedures, bulletins, and techniques which are a parallel part of the shop drawing system. It is intended to prepare the student for accurate interpretation of drawings in order to carry out the applications required or use them as appropriate reference.

DRAF 55
AUTOGRAPH RENDERING AND SOLID MODELING APPLICATIONS 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: DRAF 254 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course will assist students in creating advanced applications of solid modeling and applying shading and rendering techniques utilizing AutoCAD. They will use the AutoCAD system for basic theory as well as applications to their particular fields. (Formerly DRAF 69.11)

DRAF 56
INTRODUCTION TO AUTOCAD MECHANICAL DESKTOP 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: DRAF 153 and DRAF 254 or equivalents with grades of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: MTT 100 and MFGT 100 or equivalents with grades of Credit or “C” or higher.
This course assists students in creating three-dimensional parametric part modeling, assembly modeling, and surface modeling designs. Students receive instruction utilizing the most recent release of AutoCAD interfacing with Mechanical Desktop.

DRAF 57
ADVANCED APPLICATIONS OF AUTOGRAPH MECHANICAL DESKTOP 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: DRAF 56 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course assists students in advanced applications of three-dimensional parametric part modeling, assembly modeling, surface modeling, and bills of materials. Students receive instruction utilizing the most recent release of AutoCAD interfacing with Mechanical Desktop.
DRAF 117
GEOMETRICAL DIMENSIONING AND TOLERANCING 2 UNITS
Class hours: 2 lecture
Prerequisite: DRAF 131 or equivalent with a grade of Credit or “C” or higher.
This is a basic course in datums, modifiers, form tolerancing, positional tolerance, and coordinate tolerance conversion. It will introduce students to the state of the art in dimensioning and tolerancing used in industry. (Formerly DRAF 17)
Transfer Credit: CSU

DRAF 131
FUNDAMENTALS OF DRAFTING INCLUDING AUTOCAD 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
This course, for students who have had no high school mechanical drafting, stresses proper use of manual drafting instruments and computer aided design (CAD) using AutoCAD software for lettering text, geometric construction, isometric drawing, orthographic projection, dimensions, single auxiliary views, sectioning and conventional practices. (Formerly DRAF 31)
Transfer Credit: CSU

DRAF 133
SHEET METAL LAYOUT AND APPLICATIONS 2 UNITS
Class hours: 1 lecture, 3 lab
Prerequisite: DRAF 131 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
This course will familiarize students with sheet metal layout involving triangulation, bend allowances for pattern development, and manufacturing processes for sheet metal. It will also include practical modern day applications in architecture, automotive, advertising displays and other areas affected by this technology. (Formerly DRAF 33)
Transfer Credit: CSU

DRAF 138
FUNDAMENTALS OF COMPUTER AIDED DRAFTING 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: DRAF 131 or ARCH 111 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
This is an introduction to computer aided drafting and design using AutoCAD software. It will prepare students to operate the systems and understand the applications of computer graphics, utilizing industry standards. Students will learn to use an interactive computer graphics system to prepare drawings on personal computers. Drawings will be stored and retrieved from regular or hard disks, enabling students to produce commercial quality copies using computer-driven plotter and printer. (Formerly DRAF 38)
Transfer Credit: CSU

DRAF 153
MACHINE DRAWING AND DESIGN WITH AUTOCAD 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: DRAF 131 and DRAF 138 or equivalent with grades of Credit or “C” or higher, or appropriate work experience. TM 50 or equivalent with a grade of Credit or “C” or higher or satisfactory completion of the Math Placement Process.
Corequisite: None.
Recommendation: None.
This course covers auxiliary projections, sections, dimensions, threads and fasteners, working drawings of machine parts including details and assemblies, basic gear and cam layout, and simple mechanisms. (Formerly DRAF 53)
Transfer Credit: CSU

DRAF 237
GRAPHICAL STATICS AND STRENGTH OF MATERIALS 3 UNITS
Class hours: 2 lecture, 4 lab
Prerequisite: TM 50 or equivalent with a grade of Credit or “C” or higher, DRAF 131 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This is a course in the fundamental principles of graphical statics and strength of materials and their applications to the solutions of typical force systems and equilibrium problems. Applications are made in the fields of drafting, tool engineering, and similar areas using elementary algebra and right angle trigonometry in problem solving. (Formerly DRAF 37)
Transfer Credit: CSU

DRAF 254
AUTOCAD SOLID MODELING AND 3D 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: DRAF 51 and DRAF 153 or equivalent with grades of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course will assist students in creating three dimensional surface modeling and solid modeling. They will utilize the AutoCAD system for use of symbol libraries, menu development, and general applications in the students’ particular fields. (Formerly DRAF 69 or DRAF 54)
Transfer Credit: CSU

DRAF 258
DESIGN AND PRODUCTION TECHNOLOGY WITH AUTOCAD 4 UNITS
Class hours: 3 lecture/3 lab +2 hrs. arr.
Prerequisite: DRAF 153 or equivalent with grade of Credit or “C” or higher, or appropriate work experience.
This course is a study of modern techniques of design using AutoCAD software. Instruction includes the production, operation and process materials selection for AutoCAD plan. Planning, scheduling and cost performance are used to implement design solutions. (Formerly DRAF 58)
Transfer Credit: CSU

EARTH SCIENCE
(Science/Engineering/Math Division)

ESCI 101
PHYSICAL ECOLOGY 3 UNITS
Class hours: 2.5 hours lecture, and the equivalent of three one day field trips.
Prerequisite: None.
Recommendation: ENGL 100 clearance and MATH 40 or equivalent with a grade of Credit or “C” or higher.
This course is a general studies course including problems of current concern relative to hydrologic, oceanographic and atmospheric processes as they affect and are affected by man’s activities. The technologic, economic, and political aspects of pollution and solutions to environmental problems are studied. (Formerly ESCI 1)
Transfer Credit: CSU; UC

ESCI 101L
PHYSICAL ECOLOGY FIELD LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisite: Concurrent enrollment in ESC 101 or prior completion of ESC 101 or equivalent with a grade of Credit or “C” or higher.
This is a general studies course offering an opportunity for a more complete understanding of environmental problems discussed in Earth Science 101. It includes a hands-on approach to understanding the processes and materials involved in environ-
ESCI 104
OCEANOGRAPHY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher and satisfactory completion of the Math Placement Process or MATH 40 or equivalent with a grade of Credit or “C” or higher.
This course consists of an introduction to the geography of the oceans, geology of the ocean basins, and the chemistry and physics of sea water. The ecology of the sea and its effect on the ecosphere are also covered. Landforms and processes of the coastal zone and use and abuse of the marine environment are also discussed. This course is not open to students who have credit for ESCI 105. (Formerly ESCI 6)
Transfer Credit: CSU; UC

ESCI 106
WEATHER AND CLIMATE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: ENGL 100 clearance and MATH 40 or equivalent with a grade of Credit or “C” or higher.
This course is a survey of the processes and patterns in the atmosphere which result in the regional distribution of weather and climate. (Formerly ESCI 6)
Transfer Credit: CSU; UC

ESCI 110
INTRODUCTION TO EARTH SCIENCE 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: None.
Recommendation: ENGL 100 clearance and MATH 40 or equivalent with a grade of Credit or “C” or higher.
This course is designed for the non-science major. It is not open to those with college credit in geology, physical geography or physical anthropology. It is an integrated course designed to give broad, general knowledge in the areas of anthropology, astronomy, geology, geography, meteorology. (Formerly ESCI 10)
Transfer Credit: CSU; UC

ESCI 180
EARTH SCIENCE MATERIALS AND PREPARATIONS 1 UNIT
Class hours: 3 lab
Prerequisite: A college course in the earth sciences with a grade of Credit or “C” or higher.
This course is designed primarily for earth science majors. It includes the use and care of earth science materials with particular reference to the preparation and demonstration of laboratory set-ups. An introduction to stockroom procedures is included. As an alternative, a special project resulting in a report or display on some specific topic is possible. This course may be taken for a maximum of 2 units. (Formerly ESCI 20.16)
Transfer Credit: CSU

ECON 101
U.S. & GLOBAL ECONOMY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This is a one-semester survey of basic economic concepts and institutions stressing the United States role in the global economy. The course presents the foundations of economic analysis and applications to the market-oriented economy, role of government, and relationships and comparisons with the world economy. It is designed for students who desire an economic perspective without an intensive or technical investigation. Students majoring in Economics or Business Administration should not enroll in this course. (Formerly ECON 201)
Transfer Credit: CSU; UC

ECON 201
PRINCIPLES 3 UNITS
Class hours: 3 lecture
Prerequisite: MATH 40 or equivalent with a grade of Credit or “C” or higher, or satisfactory completion of the Math Placement Process.
Recommendation: ENGL 100 or equivalent with a grade of Credit or “C” or higher.
This one-semester survey of basic economic concepts and institutions stressing the United States role in the global economy. The course presents the foundations of economic analysis and applications to the market-oriented economy, role of government, and relationships and comparisons with the world economy. It is designed for students who desire an economic perspective without an intensive or technical investigation. Students majoring in Economics or Business Administration should not enroll in this course. (Formerly ECON 201)
Transfer Credit: CSU; UC

EDT 1
WINDOWS FOR EDUCATORS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course trains educators and prospective educators in the use of the Microsoft Windows operating environment/system. Topics include desktop settings, file and print
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management, features of the Windows menu system, Windows attributes, and program management. This course may be taken for a maximum of 4 units. (Formerly EDT 52)

EDT 2
MACINTOSH FOR EDUCATORS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course trains educators and prospective educators in the use of Macintosh computers in an academic setting. Topics include desktop settings, file and print management, features of the Macintosh menu bar system, attributes, and program management. This course may be taken for a maximum of 4 units. (Formerly EDT 53)

EDT 3 (Not degree applicable)
INTEGRATION OF THE INTERNET TO THE CURRICULUM PART 1 - INTRODUCTION 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed for educators who wish to learn about the Internet and how to incorporate the Internet into the classroom curriculum. Participants will learn fundamental Internet search methods, e-mail use and management, and techniques for setting up a website for the classroom. A supportive learning community will be provided where educators collaborate to improve their skills in creating effective learning resources using suitable technologies. This course is offered on a credit/no credit basis only. This course may be taken for a maximum of 4 units. (Formerly EDT 11.1/EDT 54)

EDT 4 (Not degree applicable)
INTEGRATION OF THE INTERNET TO THE CURRICULUM PART 2 - ADVANCED 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed for educators who wish to expand their knowledge of the Internet and how to incorporate the Internet into the classroom curriculum. Participants will learn advanced Internet search methods, e-mail use and management, and techniques for using websites in the classroom. A supportive learning community will be provided for educators to collaborate and improve their skills in creating effective learning resources using suitable technologies. This course is offered on a credit/no credit basis only. This course may be taken for a maximum of 4 units. (Formerly EDT 11.2/EDT 55)

EDT 5 (Not degree applicable)
INTEGRATION OF THE INTERNET TO THE CURRICULUM PART 3 - CURRICULUM 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is for educators who wish to learn about the Internet through innovative curriculum projects. Participants will use fundamental Internet search methods, e-mail and websites in these projects. A supportive learning community will be provided where educators collaborate and improve their skills in creating effective learning resources using suitable technologies. This course is offered on a credit/no credit basis only. (Formerly EDT 11.3/EDT 56)

EDT 6
E-MAIL FOR EDUCATORS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course trains educators and prospective educators who wish to learn about e-mail and how to incorporate e-mail into the academic environment. Participants will learn the fundamentals of e-mail use and management techniques. Emphasis is placed on e-mail within the educational community. This course may be taken for a maximum of 4 units. (Formerly EDT 57)

EDT 7
WORD FOR EDUCATORS I 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course trains educators and prospective educators who wish to learn how to work with Word documents as they prepare curriculum. Participants will use basic Word functions to include entering, creating, editing, saving, inserting, deleting, formatting and spell-checking. This course may be taken for a maximum of 4 units. (Formerly EDT 61)

EDT 8
WORD FOR EDUCATORS II 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course trains educators and prospective educators who wish to learn more about how to work with Word documents as they prepare curriculum. Participants will use intermediate Word functions such as search, replace, headers and footers, footnotes and hyphenation, thesaurus, macros, merge, math and outline functions. This course may be taken for a maximum of 4 units. (Formerly EDT 62)

EDT 9
POWERPOINT FOR EDUCATORS I 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course teaches presentation graphics using Microsoft PowerPoint. Topics covered include creating, managing, and delivering a curriculum-based presentation. Students will produce conceptual and data-intensive presentations, speaker notes, and handouts incorporating text and graphics. This course may be taken for a maximum of 4 units. (Formerly EDT 66)

EDT 10
POWERPOINT FOR EDUCATORS II 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EDT 9 or equivalent with a grade of Credit or “C” or higher.
This course teaches presentation graphics using Microsoft PowerPoint. Topics include creating, managing, and delivering a multi-media curriculum-based presentation. Students will produce conceptual and data-intensive presentations, create professional output for overheads, on-screen presentations, speaker notes, and support handouts. This course may be taken for a maximum of 4 units. (Formerly EDT 67)

EDT 11
EXCEL SPREADSHEETS FOR EDUCATORS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course trains educators and prospective educators in the use of electronic spread-
sheets using Microsoft Excel. Topics include the fundamentals of creating worksheets, formulas, and functions, creating charts, Wizards, and techniques to manipulate large worksheets and multiple-sheet workbooks. This course may be taken for a maximum of 4 units. (Formerly EDT 70)

**EDT 12**
**ACCESS FOR EDUCATORS** 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course trains educators and prospective educators in the use of database management systems using Microsoft Access. Topics include techniques for building a database, tables, queries, and reports. This course may be taken for a maximum of 4 units. (Formerly EDT 71)

**EDT 14**
**WEB DESIGN FOR EDUCATORS** 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is for educators with little or no experience with Microsoft FrontPage for Windows/NT. Topics of instruction will be Web concepts, principles of good Web design, special populations compliance, FrontPage Interface, school Web site planning and building. This course may be taken for a maximum of 4 units. (Formerly EDT 75)

**EDT 15**
**EDUCATION HARDWARE/ SOFTWARE EVALUATION** 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is for students actively involved in the use, purchase and/or maintenance of computer hardware and software in the educational setting. Students will learn the functions of pertinent hardware, how to interface equipment to the computer, system requirements, and evaluation techniques. Troubleshooting skills will be addressed in this course. This course may be taken for a maximum of 4 units. (Formerly EDT 85)

**EDT 16**
**FUNDAMENTALS OF ONLINE COURSES** 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is for students wishing to learn the fundamentals of teaching online courses. Students will learn Online course structures and delivery methods such as e-mail communication and Web site posting. This course may be taken for a maximum of 4 units. (Formerly EDT 86)

**EDT 17**
**COMPUTER INTEGRATION IN EDUCATORS** 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is for educators and prospective educators who wish to use computers in a specific subject or subject area. This course may be taken for a maximum of 4 units. (Formerly EDT 88)

**EDT 18**
**DESKTOP PUBLISHING FOR EDUCATORS** 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides an introduction to the functions of Microsoft Publisher software with an emphasis on the educational community. Microsoft Publisher will be used to create camera-ready printed presentation materials. The course will be used to create fundamentals required to develop presentation material such as letterheads, business cards, brochures, flyers, and newsletters. This course may be taken for a maximum of 4 units. (Formerly EDT 89)

**EDT 19**
**FUNDAMENTALS OF TELECONFERENCEING** 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to teleconferencing - the interactive transmission of images, sound, data, and control between two or more sites using digital lines. Emphasis will be placed on teleconferencing as a research and training tool in fields such as finance, health care, education, criminal justice, child care, and entertainment. Students will participate in live teleconferences and employ electronic technologies. This course may be taken for a maximum of 4 units. (Formerly EDT 90)

**EDT 20**
**TELECONFERENCE SMALL GROUPS** 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to the teleconference small group experiences and employ electronic technologies. Emphasis is placed on safety, scheduling, event planning, wrap-around activities, audio and video fundamentals, audiographics, and networking. Students will critically review videos of professional, small-group encounters. This course may be taken for a maximum of 4 units. (Formerly EDT 91)

**EDT 21**
**TELECONFERENCE TELMATICS** 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course develops students' facility in developing telematics media, which employ both analog and digital technologies. Emphasis is placed on those production elements necessary to teleconferencing, including stage and set design, visual and audio media, meeting and conference protocols, and information gathering and distribution. This course may be taken for a maximum of 4 units. (Formerly EDT 92)

**EDT 22**
**TELECONFERENCE REVIEW AND EVALUATION** 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to the evaluation criteria of teleconferenced events. Students will attend events at the Teleconference Center and the local area and produce written evaluations that employ objective and subjective measurements, audience feedback, and principles of quality control. This course may be taken for a maximum of 4 units. (Formerly EDT 93)
EDT 23
TELECONFERENCE PRODUCTION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with direct experience in producing, directing, and evaluating live, interactive teleconferences, including educational work place. Students will co-produce and critically review live teleconference events. This course may be taken for a maximum of 9 units. (Formerly EDT 94)

EDT 24
TELECONFERENCE PORTFOLIO 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course helps prepare students to develop a video demonstrating their expertise of interactive, teleconferenced meetings and events. The course is a requirement for all students enrolling. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. Three units of Educational Occupation Work Experience requires 180 non-paid hours of work or 225 paid hours of work per semester. This course may be taken for a maximum of 6 units. (Formerly EDT 73)

EDT 37L (Not degree applicable)
SERVICE AND REPAIR LAB 2 UNITS
Class hours: 6 lab
Prerequisite: EL 202 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This is a laboratory course only. It is designed for advanced students who wish to improve their proficiency in servicing and troubleshooting audio, video and related equipment. This course may be taken for a maximum of 4 units. (Formerly EL 37)

EDT 43/ 44 (Not degree applicable)
EDUCATIONAL OCCUPATIONAL WORK EXPERIENCE 3-4 UNITS
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Electronics work experience 73 or 20 hours of employment per week for Electronics work experience 74. The employment must be in a job related to the student’s educational goal.
Corequisite: (1) Enrollment in the Electronics vocational program with 7 or more units including occupational work experience.
Work experience/career internship provides the opportunity for Electronics students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The goal of the program is to assist students in expanding specific job skills. First semester students meet with their instructors for a minimum of one hour per week. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to a career in education must be completed at the training site. Second semester students must secure departmental approval before enrolling. Students will meet weekly with the instructor until their participatory assignments and semester work projects have been approved. Three units of Educational Occupation Work Experience requires 180 non-paid hours of work or 225 paid hours of work per semester. This course may be taken for a maximum of 6 units. (Formerly EL 73/74)

EL 50
ELECTRONIC TESTS AND MEASUREMENTS 1.5 UNITS
Class hours: 1 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: EL 100 or equivalent with a grade of Credit or “C” or higher.
This is a course in the use of electronic testing equipment. Topics include measurement theory, techniques, limitations of test equipment, and interpretation of test results. This course may be repeated for a maximum of 3 units. (Formerly EL 97.1/EL 18)

EL 52
BASIC VCR SERVICING 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: EL 202 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course is an introduction to the theory, operation and servicing of home video cassette recorders using either BETA or VHS format. The major emphasis is on understanding circuits and service techniques. (Formerly EL 47)

EL 53A
INTRODUCTION TO MICROPROCESSORS 3 UNITS
Class hours: 2 lecture/3 lab
Prerequisite: EL 114 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This is an introduction to microprocessor hardware and software. Topics discussed include the history of the microprocessor and microcontroller families, hardware and software tools, assembly language programming, data structures, subroutine calls, interrupts, and parallel Input/Output (I/O). This course may be taken for a maximum of 6 units. (Formerly EL 44.1)

EL 53B
ADVANCED MICROPROCESSORS 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: EL 53A or equivalent with a grade of Credit of “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course builds on the principles learned in EL 53A as embedded control applications are investigated. Topics discussed include counter-timer applications, serial communi-
cation techniques, analog signal conversion, and embedded control. This course may be taken for a maximum of 6 units. (Formerly EL 44.2)

**EL 54 MICROCOMPUTER REPAIR FUNDAMENTALS 3 UNITS**
Class hours: 2 lecture/3 lab
Prerequisite: EL 134 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This is a course in fundamentals of troubleshooting and repair of microcomputers using both hardware and software testing techniques. Different types and sizes of microprocessor systems will be discussed. Laboratory assignments will accompany the lecture material. Some familiarity with a high-level programming language is recommended.

**EL 56 PROGRAMMABLE LOGIC CONTROLLERS 3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: EL 100 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course introduces the student to programmable logic controllers (PLC). Topics to be discussed include history of the PLC, ladder diagrams, programming techniques, programming languages, installation, troubleshooting, and maintenance of the PLC. (Formerly EL 16)

**EL 60 COMPUTER AIDED CIRCUIT ANALYSIS 1.5 UNITS**
Class hours: 1 lecture/2 lab
Prerequisite: EL 100 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is an introduction to the fundamentals of computer-aided circuit simulation and electronic design automation (EDA). The emphasis is on the use of the computer in designing and testing electronic circuits for more productive hardware construction. This course may be repeated for a maximum of 3 units. (Formerly EL 97.2/EL 15)

**EL 62 OPTOELECTRONICS 3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: EL 100 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience, and satisfactory completion of the Math Placement Process or TM 50 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This is a course in the fundamentals of optoelectronics. Topics to be covered include the behavior of light, optics, light sources, lasers, displays, detectors, optical sensors, optocouplers, and fiber optics. (Formerly EL 51)

**EL 64A FUNDAMENTALS OF TELECOMMUNICATION ELECTRONICS 3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: EL 114 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This is an introductory course about the field of telecommunications. Course content includes a presentation of the applied aspects of telephone systems, transmission media, multiplexing techniques, circuit switching, error detection, error correction, and circuit testing. (Formerly EL 64.1)

**EL 64B ADVANCED TELECOMMUNICATION ELECTRONICS 3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: EL 64A or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This is an advanced course in electronic data communications. The material to be covered includes the open system interconnection (OSI) model, the transport control protocol/internet protocol (TCP/IP), integrated services digital network (ISDN), and broadband ISDN. (Formerly EL 64.2)

**EL 66 FUNDAMENTALS OF ELECTRICITY 3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: EL 100 and TM 50 or equivalents with grades of Credit or “C” or higher.
This course introduces the student to the principles of electrical power. Topics to be discussed include electrical safety, generators, motors, wiring, National Electrical Code (NEC), installation, and maintenance. (Formerly EL 19)

**EL 76 INDUSTRIAL ELECTRONIC CONTROL 3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: EL 124 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: EL 200 or equivalent.
Recommendation: None.
This is a course in the application of electronic control to industrial process control. Topics to be discussed include mechanical systems, sensors, motors, actuators, feedback control, switching circuits, relay control, power-control semiconductors and interfacing of electronic circuits to mechanical, hydraulic and pneumatic systems. (Formerly EL 46)

**EL 86 ELECTRIC MOTOR CONTROL 3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: EL 100 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course presents the principles of motor control. Topics to be discussed include safety, classifications of motors, speed control, and motor applications.

**EL 94 INTRODUCTION TO DIGITAL SIGNAL PROCESSING 3.5 UNITS**
Class hours: 3 lecture/2 lab
Prerequisite: EL 200 and EL 244 or equivalent with grades of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: EL 210 or equivalent with a grade of Credit or “C” or higher.
This course introduces the student to the concepts of digital signal processing (DSP). Topics to be covered include DSP chip architecture, interfacing, programming, digital filtering, voice recognition, and telecommunications applications. Laboratory experiments will demonstrate the application of DSP devices.

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All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
EL 96A
INTRODUCTION TO AUTOMATED
MANUFACTURING (ROBOTICS) 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisites: EL 134 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course provides an overview of the current robotics industry starting with a brief history which is followed by a review of the basic terms used in the field. The robots are classified by geometry, power source, application, path control and intelligence. The operation of different types of end effectors is covered along with robot controllers and the basic system sensors. Basic programming techniques are covered. (Formerly EL 55)

EL 96B
AUTOMATED MANUFACTURING
(ADVANCED ROBOTICS) 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: EL 96A or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is designed to prepare technicians in robotics design and research, robot applications, installations, programming, “start-up” procedures, customer service, troubleshooting and maintenance. The technician will have an understanding in integrated systems. The course covers the operation of work cells including vision systems, tactile sensing, offline programming, interfacing to external computers, and voice input and output. Use of vision and touch sensing will be emphasized. (Formerly EL 56)

EL 100
BASIC ELECTRONICS 4 UNITS
Class hours: 4 lecture
Prerequisite: None.
This is a survey course intended for non-electronics majors. It satisfies the general requirements in electronics for Industrial Arts Teacher Training at state universities. It is also an acceptable substitute for the electronics background required as a prerequisite to enter the electronics program. The course will cover both DC and AC electrical theory, magnetism, transistors, and integrated circuits. Basic concepts of electronic devices, circuits, and systems will be demonstrated. (Formerly EL 1)
Transfer Credit: CSU

EL 110
PRINCIPLES OF DC ELECTRONICS 4 UNITS
Class hours: 4 lecture
Prerequisite: None.
Corequisite: TM 50 or equivalent.
Recommendation: EL 100 or equivalent with a grade of Credit or “C” or higher.
This course covers atomic structure and the electron theory, Ohm’s and Kirchhoff’s laws for DC circuits, magnetism, inductance, capacitance, DC measurements, and DC network analysis. (Formerly EL 10)
Transfer Credit: CSU

EL 110L
DC ELECTRONICS LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisite: EL 110 or equivalent with a grade of Credit or “C” or higher or concurrent enrollment.
Corequisite: None.
Recommendation: None.
Experiments performed in this course are planned to accompany the lectures in EL 10. The student learns to use instrumentation in the measurement and analysis of DC circuits. Color code, symbols, schematics and assembly techniques are introduced. (Formerly EL 10.1)
Transfer Credit: CSU

EL 114
FUNDAMENTALS OF DIGITAL ELECTRONICS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: EL 100 or equivalent with a grade of Credit or “C” or higher and satisfactory completion of the Math Placement Process or MATH 20 or equivalent with a grade of Credit or “C” or higher.
This course is an introduction to the fundamentals of digital electronics. The material includes number systems, Boolean algebra, logic symbols, computer codes, combinational logic circuits, and programmable logic devices. (Formerly EL 14)
Transfer Credit: CSU

EL 114L
FUNDAMENTALS OF DIGITAL ELECTRONICS LAB 1 UNIT
Class hours: 3 lab
Prerequisite: None.
Corequisite: EL 114 or equivalent.
Recommendation: None.
This is a laboratory course designed to support the concepts learned in EL 114. Fundamentals of Digital Electronics. Experiments are used to verify the applications of number systems, Boolean algebra, logic symbols, and computer codes. Design projects are assigned to be constructed using integrated circuits and computer simulations. This course may be repeated for a maximum of 2 units. (Formerly EL 14.1)
Transfer Credit: CSU

EL 120
PRINCIPLES OF AC ELECTRONICS 4 UNITS
Class hours: 4 lecture
Prerequisites: EL 110 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course covers the analysis of AC circuits using both resistive and reactive components. The concept of resonance and filter circuits is introduced and network theorems are studied. (Formerly EL 20)
Transfer Credit: CSU

EL 120L
AC ELECTRONICS LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisites: EL 120 or equivalent with a grade of Credit or “C” or higher or concurrent enrollment.
Corequisite: None.
Recommendation: None.
Experiments performed in this course are planned to accompany the lectures in EL 120 (Principles of AC Electronics). The student learns to use electronic laboratory instruments in the measurement and analysis of AC circuits. (Formerly EL 20.1)
Transfer Credit: CSU

EL 124
ADVANCED DIGITAL ELECTRONICS 3 UNITS
Class hours: 3 lecture
Prerequisite: EL 114 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course is a continuation of the principles learned in EL 114. The material includes flip-flops, multivibrator circuits, sequential logic circuits, memory systems interfacing, and an introduction to microprocessors. (Formerly EL 24)
Transfer Credit: CSU
EL 124L
ADVANCED DIGITAL ELECTRONICS
LABORATORY  1 UNIT
Class hours: 3 lab
Prerequisite: EL 114L or equivalent with a
grade of Credit or “C” or higher.
Corequisite: EL 124 or equivalent.
Recommendation: None.
This is a laboratory course designed to
support the concepts learned in EL 124.
Experiments are used to verify the applica-
tions of flip-flops, multivibrator circuits,
sequential logic circuits, memory systems,
interfacing, and microprocessors. Design
projects are assigned to be constructed using
integrated circuits and computer simulati-
ons. (Formerly EL 24.1)
Transfer Credit: CSU

EL 200
SEMI-CONDUCTOR CIRCUITS  3 UNITS
Class hours: 3 lecture
Prerequisites: EL 120 or equivalent with a
grade of Credit or “C” or higher or concurrent
enrollment.
Corequisite: None.
Recommendation: EL 100 or equivalent with
a grade of Credit or “C” or higher. This course
covers the theory of operation of semi-
conductor devices and design and analysis of
the basic circuits employed in analog elec-
tronic systems. (Formerly EL 30)
Transfer Credit: CSU

EL 200L
SEMI-CONDUCTOR CIRCUITS
LABORATORY  1 UNIT
Class hours: 3 lab
Prerequisite: EL 200 or equivalent with a
grade of Credit or “C” or higher or concurrent
enrollment.
Corequisite: None.
Recommendation: None.
Experiments planned to accompany the
lectures in EL 200 covering semiconductor
diodes, transistors and transistor amplifiers
are included in this course. (Formerly EL 30.1)
Transfer Credit: CSU

EL 202
RADIO AND TV THEORY AND
SERVICING  3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: EL 200 or equivalent with a
grade of Credit or “C” or higher or concurrent
enrollment, or appropriate work experience.
Theory of superheterodyne receivers and
practice in servicing of electronic circuits
with special emphasis on commercial radio
and television receivers will be explored.
(Formerly EL 33)
Transfer Credit: CSU

EL 205
BIO-MEDICAL ELECTRONICS  4 UNITS
Class hours: 3 lecture/3 lab  (Fall only)
Prerequisite: EL 200 or equivalent with a
grade of Credit or “C” or higher or concurrent
enrollment, or appropriate work experience.
Corequisite: None.
Recommendation: None.
The source and nature of electrophysical
phenomenon, as it relates to instrumenta-
tion, will be explored. The principles of
laboratory and therapeutic equipment will
be discussed. This will be followed by a study
of the practical application of technology to the
maintenance, repair and calibration of
medical equipment. Hospital safety and the
problems peculiar to the Intensive Care Unit will also be covered.
(Formerly EL 35)
Transfer Credit: CSU

EL 210
ELECTRONIC SYSTEMS ANALYSIS  3 UNITS
Class hours: 3 lecture
Prerequisite: EL 200 or equivalent with a
grade of Credit or “C” or higher, or appropriate
work experience.
Corequisite: EL 210L.
Recommendation: None.
This course covers the principles of elec-
tronic communications with particular
emphasis on transmitters, receivers, antennas,
and transmission lines. Applications in
commercial, military and amateur equip-
ment are discussed. FCC rules and
regulations are included. (Formerly EL 40.1)
Transfer Credit: CSU

EL 212
ELECTRONIC COMMUNICATIONS  3 UNITS
Class hours: 3 lecture
Prerequisite: EL 202 or equivalent with a
grade of Credit or “C” or higher, or appro-
priate work experience.
Corequisite: EL 212L.
Recommendation: None.
This course covers the principles of elec-
tronic communications with particular
emphasis on transmitters, receivers, antennas,
and transmission lines. Applications in
commercial, military and amateur equip-
ment are included. (Formerly EL 42)
Transfer Credit: CSU

EL 212L
ELECTRONIC COMMUNICATIONS
LAB  1 UNIT
Class hours: 3 lab
Prerequisite: EL 202 or equivalent with a
grade of Credit or “C” or higher, or appro-
priate work experience.
Corequisite: EL 212.
Recommendation: None.
This course is designed to provide laboratory
experiences in communications circuits and
devices. The experiments correlate with the
lecture material in EL 212 - Electronic
Communications. (Formerly EL 42.1)
Transfer Credit: CSU

EL 215
BIO-MEDICAL INSTRUMENTS  4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: EL 200 or equivalent with a
grade of Credit or “C” or higher, or concurrent
enrollment.
This course is a study of the theory, applica-
tion, operation, calibration and troubleshooting of
Bio-Medical Electronics Instrumentation. It
will also include practice in servicing of elec-
tronics. (Formerly EL 23)
Transfer Credit: CSU
EL 220
LINEAR INTEGRATED CIRCUITS 3 UNITS
Class hours: 3 lecture
Prerequisite: EL 200 or equivalent with a grade of Credit or "C" or higher or concurrent enrollment.
Corequisite: None.
Recommendation: None.
This course is an introduction to the basics of linear circuits in integrated form. Emphasis is on the operational amplifier, how it functions in theory and practice, its wide range of applications, and its limitations. (Formerly EL 41)
Transfer Credit: CSU

EL 220L
LINEAR INTEGRATED CIRCUITS LABORATORY 1 UNIT
Class hours: 3 lab
Prerequisite: EL 210 or equivalent with a grade of Credit or "C" or higher or concurrent enrollment.
Corequisite: None.
This is a laboratory course. Experiments performed in this course are planned to accompany the lectures in EL 220 (Linear Integrated Circuits). In this course the student will construct, test and make measurements verifying common characteristics of various linear integrated circuits. (Formerly EL 41.1)
Transfer Credit: CSU

EL 221
ADVANCED RADIO AND TV SERVICING 3 UNITS
Class hours: 2 lecture, 4 lab
Prerequisite: EL 202 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is a study of the special types of circuitry employed in radio and television receivers, including deflection oscillators and amplifiers, high voltage circuits, pulse amplification, high frequency tuners, color circuitry, and multiplex circuits. (Formerly EL 43)
Transfer Credit: CSU

EL 244
INTRODUCTION TO MICROCOMPUTERS 4 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: EL 134 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is an introduction to the fundamental operations of a general purpose microcomputer. The course will include a study of the memory system, the microprocessor, and input/output circuits. The basic instruction/execute cycle will be discussed and microprocessor machine level programming will be introduced. (Formerly EL 44)
Transfer Credit: CSU

ENGR 110
ENERGY AND THE WAY WE LIVE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with grades of Credit or "C" or higher.
This introductory course describes the importance of energy in natural systems, energy resources, and utilization of energy by Man in modern economies. The potential for conservation and use of alternatives to the fossil fuels is studied. (Formerly ENGY 10)
Transfer Credit: CSU; UC

ENGR 115
ENGINEERING ELECTRIC CIRCUITS 3 UNITS
Class hours: 3 lecture
Prerequisite: PHYS 202 or equivalent with a grade of Credit or "C" or higher.
This course includes the study of the fundamental principles essential to understanding electric circuits. These include Kirchhoff's Laws, Ohm's Law, network theorems, Mesh and Nodal analysis, Thevenin and Norton equivalents, inductors and capacitors, resistor capacitor and resistor coil circuits, and sinusoidal steady-state analysis and calculations. (Formerly ENGR 15)
Transfer Credit: CSU; UC

ENGR 123
DESCRIPTIVE GEOMETRY 3 UNITS
Class hours: 6 lecture/lab
Prerequisite: MATH 140 or TM 50 and DRAF 153 or equivalent with grades of Credit or "C" or higher.
This course covers the fundamental principles of descriptive geometry. The course emphasizes applications of these principles to solutions of three dimensional engineering and design technology problems. (Formerly ENGR 23)
Transfer Credit: CSU; UC

ENGR 135
STATICS 3 UNITS
Class hours: 3 lecture(Spring only)
Prerequisite: MATH 102 and PHYS 101 or PHYS 201 or equivalent with grades of Credit or "C" or higher.
This course covers the part of the science of mechanics that deals with external force systems and equilibrium conditions on bodies. (Formerly ENGR 35)
Transfer Credit: CSU; UC

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
ENGLISH
(Liberal Arts Division)

ENGL 10 (Not degree applicable)
INTRODUCTION TO COMPUTERIZED WRITING 0 UNIT
Class hours: 2 lab
Open entry/open exit
Corequisite: Concurrent enrollment in any English or Speech class.
This is an open-entry/open-exit self-paced English course to improve students' writing skills using computers. (Formerly ENGL 99)

ENGL 20 (Not degree applicable)
BASIC WRITING 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: Satisfactory completion of the English Placement Process or ESL 200 or equivalent with a grade of Credit or “C” or higher.
This course introduces students to the writing process as a means of developing ideas into clear, correct, and effective writing. The course concentrates on short essay writing in accord with the conventions of standard English. (Formerly ENGL 50.1)

ENGL 22 (Not degree applicable)
SPELLING BASICS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with instruction in editing their own writing for standard spelling. This course is offered on a credit/no credit basis only. (Formerly ENGL 69.6/ENGL 12.1)

ENGL 30 (Not degree applicable)
GRAMMAR BASICS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with instruction in editing their own writing for standard grammar. This course is offered on a credit/no credit basis only. (Formerly ENGL 69.5/11.1)

ENGL 31 (Not degree applicable)
PUNCTUATION BASICS 1 UNIT
Class hours: 1 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with instruction in editing their own writing for standard punctuation. This course is offered on a credit/no credit basis only. (Formerly ENGL 69.6/ENGL 12.1)

ENGL 32 (Not degree applicable)
SPELLING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to help students overcome deficiencies in spelling by learning the patterns of language through a step by step instructional approach. The student learns to apply principles of spelling to groups of English words, from simple to complex. (Formerly ENGL 64)

ENGL 33 (Not degree applicable)
INDIVIDUALIZED ENGLISH 0 UNIT
Class hours: 3 lab (17 weeks)
Open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course assists students in improving and expanding writing and thinking skills needed for successful communication in their careers and/or professions. The course is taught by diagnostic-prescriptive methods, technology mediated instruction, and individualized instruction. (Formerly ENGL 66)

ENGL 50A
ENGLISH GRAMMAR 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Students will study the fundamentals of English grammar, with an emphasis on parts of speech, phrases and clauses, sentence structure, and correct usage. Class hours may be used to qualify a student for the certified shorthand reporters’ examination. (Formerly ENGL 11)

ENGL 50B
ADVANCED GRAMMAR 3 UNITS
Class hours: 3 lecture
Prerequisite: ENGL 50A or equivalent with a grade of Credit or “C” or higher.
This course further develops the student’s ability to analyze the structure of English sentences, to recognize and correct errors in usage, punctuation and grammar, and to generate sentences of varied complexity. Class hours may be used to qualify a student for the certified shorthand reporters’ examination. (Formerly ENGL 11.5)

ENGL 52
INTRODUCTION TO COLLEGE COMPOSITION 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 20 or equivalent with a grade of Credit or “C” or higher.
This course develops the students’ ability to write clearly, effectively, and correctly by guiding students through the writing process. Students write a series of compositions that integrate critical thinking, evaluative writing, and library research. (Formerly ENGL 50.2)

ENGL 53
PUNCTUATION, CAPITALIZATION AND SPELLING 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
This course gives comprehensive instruction in preparation of written materials, with particular emphasis on punctuation, capitalization, abbreviations, numbers, spelling, and manuscript preparation. Class hours may be used to qualify a student for the certified shorthand reporters' examination. (Formerly ENGL 12)

ENGL 100
FRESHMAN COMPOSITION 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
This course guides the student through the writing process to develop expository prose with an emphasis on effective organization and on correctness. (It meets transfer requirements four four-year institutions.)
(Formerly ENGL 1)
Transfer Credit: CSU; UC

ENGL 102
FRESHMAN COMPOSITION AND LITERATURE 3 UNITS
Class hours: 3 lecture
Prerequisite: ENGL 100 or equivalent with a grade of Credit or “C” or higher.
This course continues to develop and improve skills in composition and critical analysis by introducing the study of fiction, poetry, drama and film produced by an enlarged canon of authors from culturally
diverse backgrounds as the subjects for writing assignments. (Formerly ENGL 2)
Transfer Credit: CSU; UC

**ENGL 103**
CRITICAL AND ARGUMENTATIVE WRITING 3 UNITS
Class hours: 3 lecture
Prerequisite: ENGL 100 or equivalent with a grade of Credit or “C” or higher or a satisfactory completion of the Advanced Placement English Examination of the College Entrance Examination Board.
Corequisite: None.
Recommendation: None.
This course develops critical thinking, reading, and writing beyond the level achieved in English 100 (Freshman Composition). The course focuses on the development of logical reasoning and analytical and argumentative writing skills. (Formerly ENGL 3)
Transfer Credit: CSU; UC

**ENGL 106**
INTRODUCTION TO LANGUAGE STUDY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is the study of language structure and language use. This includes the historical development of language families, the universal properties of these languages, and the individual speech acts that derive from a given language. (Formerly ENGL 6)
Transfer Credit: CSU; UC

**ENGL 107**
VOCABULARY BUILDING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This is a course in vocabulary building that emphasizes the structural approach to vocabulary study. Emphasis is placed on the prefixes, roots, and suffixes as they combine to form words, and on the meanings and patterns of meanings formed by words in the context of a sentence and paragraph. (Formerly ENGL 7)
Transfer Credit: CSU

**ENGL 108**
VOCABULARY BUILDING FOR PROFESSIONALS 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
This course is designed to further an understanding of word origins, roots and affixes, with particular attention to terms used in business and the professional disciplines.

Class hours may be used to qualify a student for the certified shorthand reporters examination. (Formerly ENGL 8)
Transfer Credit: CSU

**ENGL 155**
TECHNICAL WRITING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 20 or equivalent with a grade of Credit or “C” or higher.
This course enhances students’ ability to write clear, effective, and correct technical prose. Students write a series of technical instructions, reports, manuals, and proposals that integrate critical thinking, evaluation, and research. Students will produce a letter of application and resume for technical fields. (Formerly ENGL 5)
Transfer Credit: CSU

**ENGL 221A**
LITERATURE IN THE BIBLE:
HEBREW SCRIPTURES 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
This course is a general introduction to the literature composing the Hebrew Scriptures (more familiarly known as the Old Testament) in translation. Emphasis will be on understanding the Bible as a literary document through literary analysis, including the study of biblical genres such as history, poetry, narrative, drama, and homiletic, prophetic, apocalyptic and wisdom literature. (Formerly ENGL 21.1)
Transfer Credit: CSU; UC

**ENGL 221B**
LITERATURE IN THE BIBLE:
CHRISTIAN SCRIPTURES 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
This course studies the New Testament in English in translation as a literary document. Emphasis is on understanding the literary nature of the Bible through literary analysis, including the study of literary genres such as poetry, epistolary, narrative, drama and biography. (Formerly ENGL 21.2)
Transfer Credit: CSU; UC

**ENGL 222**
CHILDREN’S LITERATURE 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
The course is designed to survey children’s literature with special emphasis on the classics. It concentrates on the fable, folktales, fairy tales and the children’s novel. (Formerly ENGL 22)
Transfer Credit: CSU; UC

**ENGL 223**
CHICANA/ O LITERATURE 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course is a study of selected representative literature of Chicano authors. Selected works will be drawn from at least three of the following genres: the novel, the short story, poetry, drama, autobiography, and the essay. (Formerly ENGL 23)
Transfer Credit: CSU; UC

**ENGL 224**
NATIVE AMERICAN LITERATURE 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course is a study of selected representative literature of Native North American Indian writers. The genres included are the novel, the short story, poetry, autobiography, and the essay. (Formerly ENGL 24)
Transfer Credit: CSU; UC

**ENGL 225**
MEXICAN LITERATURE IN TRANSLATION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
A one-semester course to survey Mexican literature in translation. The genres included will be the novel, the short story, the poem, the essay, and the song. (Formerly ENGL 25)
Transfer Credit: CSU; UC

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
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| ENGL 226    | AFRICAN AMERICAN LITERATURE                              | 3       | Class hours: 3 lecture  
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.  
Corequisite: None.  
Recommendation: None.  
This course is a study of selected or representative literature of African and African American authors, their viewpoints, styles, forms, and themes. The genres included will be the novel, the short story, drama, poetry, autobiography, essays, and oral performance. Modern and contemporary authors will be highlighted. (Formerly ENGL 224)  
Transfer Credit: CSU; UC |
| ENGL 227    | CURRENT LITERATURE                                       | 3       | Class hours: 3 lecture  
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.  
This course is a study of literature currently important or currently popular and not ordinarily studied in the regular departmental curriculum. Specific topics, such as best sellers, science fiction, campus classics, California literature, Native American literature, or modern literature, will be announced in the schedule of classes. It may be repeated with different topics for a maximum of 6 units. (Formerly ENGL 27)  
Transfer Credit: CSU; UC |
| ENGL 228    | SHAKESPEARE'S PLAYS                                      | 3       | Class hours: 3 lecture  
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.  
This course is a general introduction to Shakespeare’s plays. Representative selections from the comedies, histories, tragedies, and romances are studied. The emphasis is on discussion and analysis of Shakespeare's relevance to his world and to ours. (This is not an acting class.) (Formerly ENGL 28)  
Transfer Credit: CSU; UC |
| ENGL 229    | AUTOBIOGRAPHICAL LITERATURE/WRITING                      | 3       | Class hours: 3 lecture  
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.  
This course will advance composition skills in the special area of autobiography through journal writing and the development of a significant autobiography. Autobiographical works by important writers will be read for modeling purposes. (Formerly ENGL 29)  
Transfer Credit: CSU; UC |
| ENGL 230A   | INTRODUCTION TO AMERICAN LITERATURE                      | 3       | Class hours: 3 lecture  
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.  
This course studies the representative works of American literature from 1608-1870. Selected works will be drawn from the four major literary periods: Puritan, Enlightenment/Revolutionary, Romantic, and early Realism. (Formerly ENGL 30.1)  
Transfer Credit: CSU; UC  
**ENGL 230B** (CAN ENGL SEQ C) (CAN ENGL 14)  
INTRODUCTION TO AMERICAN LITERATURE | 3 | Class hours: 3 lecture  
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.  
This course studies the representative works of American literature from 1870-1900's. Selected works will be drawn from the four major literary periods: Realism, Naturalism, Modernism, and Postmodernism. (Formerly ENGL 30.2)  
Transfer Credit: CSU; UC |
| ENGL 231    | READINGS IN POETRY                                       | 3       | Class hours: 3 lecture  
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.  
This is a course in the novel emphasizing structure, theme and style. Outstanding Continental, English and American novels are studied. (Formerly ENGL 33)  
Transfer Credit: CSU; UC |
| ENGL 232    | READINGS IN THE DRAMA                                    | 3       | Class hours: 3 lecture  
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.  
This course studies the drama from its ancient Greek origins to its present-day expressions. It emphasizes both content and form and highlights the literary techniques specific to this genre of literature. (Formerly ENGL 35)  
Transfer Credit: CSU; UC |
| ENGL 233    | READINGS IN SHORT FICTION                                | 3       | Class hours: 3 lecture  
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.  
This course studies the structure and techniques of the short story and the novelette. Emphasis is on critical analysis of selected American, European and World short fiction throughout time, including contemporary works. (Formerly ENGL 34)  
Transfer Credit: CSU; UC |
| ENGL 234    | READINGS IN THE NOVEL                                    | 3       | Class hours: 3 lecture  
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.  
This course is a study of selected representative literature written by Americans of Asian or Pacific Island descent. The genres included are the novel, drama, short story, and poetry. Memoirs and essays may be included. (Formerly ENGL 37)  
Transfer Credit: CSU; UC |
| ENGL 235    | ASIAN AMERICAN LITERATURE                               | 3       | Class hours: 3 lecture  
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.  
This course is a study of selected representative literature written by Americans of Asian or Pacific Island descent. The genres included are the novel, drama, short story, and poetry. Memoirs and essays may be included. (Formerly ENGL 37)  
Transfer Credit: CSU; UC |
Announcement of Courses

ENGL 240 (CAN ENGL 6)
CREATIVE WRITING 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
This course provides an opportunity for students to explore their interest in literary creativity by writing original short fiction, poetry, play or screenplay, or magazine article(s). Writers will gain understanding of each literary type, have the opportunity to create in each area, and be afforded the chance to have their work critiqued in a workshop setting. This course may be taken for a maximum of 6 units. (Formerly ENGL 40)
Transfer Credit: CSU; UC

ENGL 241
SCRIPTWRITING FOR TELEVISION AND MOTION PICTURES 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
This course provides an opportunity for students to develop a screenplay for television or motion pictures. Students learn the craft of screenwriting by studying published scripts, movies, and TV shows and by writing synopses, treatments, scenes, and a production-worthy screenplay. This course may be taken for a maximum of 6 units. (Formerly ENGL 41)
Transfer Credit: CSU; UC

ENGL 246A (CAN ENGL SEQ B)(CAN ENGL 8)
SURVEY OF ENGLISH LITERATURE 3 UNITS
Class hours: 3 lecture
Prerequisite: ENGL 100 or equivalent with a grade of Credit or “C” or higher.
This course studies English literature from the Anglo-Saxon period to the Romantic Movement. Emphasis is on the various themes, forms and trends in English literature. (Formerly ENGL 46.1)
Transfer Credit: CSU; UC

ENGL 246B (CAN ENGL SEQ B)(CAN ENGL 10)
SURVEY OF ENGLISH LITERATURE 3 UNITS
Class hours: 3 lecture
Prerequisite: ENGL 100 or equivalent with a grade of Credit or “C” or higher.
This course studies English literature from the Romantic Movement to the present day. It emphasizes the various themes, forms and trends in English literature. (Formerly ENGL 46.2)
Transfer Credit: CSU; UC

ENGL 248A
MASTERPIECES OF WORLD LITERATURE 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
This course studies Western and world literature from the ancient world to the 17th century. Various themes, forms and trends are examined in an effort to understand the universal problems of mankind. (Formerly ENGL 48/ENGL 48.1)
Transfer Credit: CSU; UC

ENGL 248B
MASTERPIECES OF WORLD LITERATURE 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
This course studies Western and world literature from the 17th century to the 20th century. Various themes, forms and trends are studied in an effort to examine the universal problems of mankind. (Formerly ENGL 49/ENGL 49.2)
Transfer Credit: CSU; UC

ENGLISH AS A SECOND LANGUAGE (Liberal Arts Division)

ESL 1 (Not degree applicable)
ENGLISH AS A SECOND LANGUAGE: INTRODUCTION 5 UNITS
Class hours: 5 lecture
Prerequisite: None.
This course is designed for ESL students who wish to improve in fundamental reading and writing skills. Emphasis is on the recognition and writing of English vocabulary and grammar. The course focuses on speaking and listening skills. (Formerly ESL 63)
Transfer Credit: CSU; UC

ESL 2 (Not degree applicable)
INTERMEDIATE SKILLS FOR THE ESL STUDENT 5 UNITS
Class hours: 5 lecture/1 lab
Prerequisite: Satisfactory completion of the English As A Second Language Placement Process or ESL 1 or equivalent with a grade of Credit or “C” or higher.
This course introduces advanced English skills. Emphasis is placed on reading comprehension, writing, and listening. (Formerly ESL 62.1)
Transfer Credit: CSU; UC

ESL 3 (Not degree applicable)
ADVANCED INTERMEDIATE SKILLS FOR THE ESL STUDENT 5 UNITS
Class hours: 5 lecture/1 lab
Prerequisite: Satisfactory completion of the English As A Second Language Placement Process or ESL 2 or equivalent with a grade of Credit or “C” or higher.
This course provides advanced English skills. Emphasis is placed on reading comprehension, writing, and listening. (Formerly ESL 61.1)
Transfer Credit: CSU; UC

ESL 4 (Not degree applicable)
SHELTERED ENGLISH AS A SECOND LANGUAGE/AMERICAN HISTORY 0 UNIT
Class hours: 12 lecture/4 lab (3 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to prepare limited English-speaking ESL students. It provides advanced English skills for ESL students. (Formerly ESL 60.1)
Transfer Credit: CSU; UC

ESL 10 (Not degree applicable)
ESL SPEAKING AND LISTENING 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: None.
This course provides oral communication and listening skills. Emphasis is on fluency, correct word usage, and syntax. The course is designed for ESL students who wish to improve in fundamental reading skills. (Formerly ESL 62)
Transfer Credit: CSU; UC

ESL 11 (Not degree applicable)
ESL FUNDAMENTAL READING SKILLS 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
This course is designed for ESL students who wish to improve in fundamental reading skills. The course is designed for ESL students who wish to improve in fundamental reading skills. (Formerly ESL 61)
Transfer Credit: CSU; UC

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
ESL 12 (Not degree applicable)  
**ESL PRONUNCIATION** 1.5 UNITS  
Class hours: 3 lecture/1 lab  (9 weeks)  
Prerequisite: None.  
This course aids the students in reproducing the sounds of American English accurately. Attention focuses on the individual needs of the students. This course may be taken for a maximum of 3 units.

ESL 14 (Not degree applicable)  
**ACCENT REDUCTION** 3 UNITS  
Class hours: 3 lecture/1 lab  
Prerequisite: None.  
Corequisite: None.  
Recommendation: None.  
This is an intensive pronunciation course that includes practice with the sounds of American English in all contexts-syllables, words, sentences, and conversation and an in-depth practice of the stress and intonational patterns of American English. Enunciation (production of sounds with clarity and precision) of American English in varying contexts will be stressed. Each student will be evaluated and assisted with his/her pronunciation difficulties. This course may be taken for a maximum of 6 units.

ESL 20 (Not degree applicable)  
**ESL SPEAKING AND LISTENING** 3 UNITS  
Class hours: 3 lecture 1 lab  
Prerequisite: None.  
Recommendation: ESL 10 or equivalent with a grade of Credit or “C” or higher.  
This course is a continuation of ESL 10. Students practice oral communication and listening skills. Fluency, correct usage, and syntax are emphasized. Topics are of a more abstract nature. (Formerly ESL 4.2)

ESL 21A (Not degree applicable)  
**ESL INTERMEDIATE VOCABULARY** 1.5 UNITS  
Class hours: 3 lecture  (9 weeks)  
Prerequisite: None.  
This course is for ESL students who wish to improve vocabulary skills. Emphasis is on general and specialized vocabulary development, dictionary skills, word recognition skills, improvement of sight vocabulary, and vocabulary-in-context techniques. (Formerly ESL 21/ESL 21.1)

ESL 21B (Not degree applicable)  
**ESL ADVANCED VOCABULARY** 1.5 UNITS  
Class hours: 3 lecture  (9 weeks)  
Prerequisite: None.  
This course is for advanced ESL students who wish to improve vocabulary skills at a level beyond that of intermediate (the 2000 most common words in English). The emphasis is on general and specialized vocabulary development, advanced dictionary skills, word recognition skills, improvement of sight vocabulary, and application of advanced vocabulary in context techniques. (Formerly ESL 21.2)

ESL 22 (Not degree applicable)  
**ESL ORAL COMMUNICATION** 1.5 UNITS  
Class hours: 3 lecture/1 lab  (9 weeks)  
Prerequisite: None.  
This course identifies and improves the production of American speech sounds. Students prepare, practice and present various oral messages. Emphasis is on stress and intonation. Topics center on students’ needs and personal experiences. This course may be taken for a maximum of 3 units.

ESL 23 (Not degree applicable)  
**ESL SPELLING** 1.5 UNITS  
Class hours: 3 lecture/1 lab  (9 weeks)  
Prerequisite: None.  
This course introduces basic spelling rules and provides students with the opportunity for practice orally and in writing. Texts and supplemental materials will be used to reinforce the relationship between oral and written expression. This course may be taken for a maximum of 3 units.

ESL 31 (Not degree applicable)  
**ESL READING** 1.5 UNITS  
Class hours: 3 lecture  (9 weeks)  
Prerequisite: ESL 11 or equivalent with a grade of Credit or “C” or higher or satisfactory score on the ESL Placement Test.  
This course improves the literal, interpretive and critical comprehension skills of the students. Emphasis is on identifying main ideas and significant details, sequence of relationships, inferences of fact and tone, figurative language, and propaganda.

ESL 32 (Not degree applicable)  
**AMERICAN EXPRESSIONS AND CULTURE** 1.5 UNITS  
Class hours: 3 lecture  (9 weeks)  
Prerequisite: None.  
Students study American expressions and American social customs. Students incorporate common expressions in their conversation and writing. Social customs, such as those regarding time, dress, guest behavior, gestures, and selected public encounters, are discussed.

ESL 33 (Not degree applicable)  
**ENGLISH FOR SPECIFIC PURPOSES** 1.5 UNITS  
Class hours: 3 lecture  (9 weeks)  
Prerequisite: None.  
This course is for students who need work in oral and written English skills in their field. It provides an opportunity to become familiar with situations particular to their field. This course may be taken for a maximum of 3 units.

ESL 34 (Not degree applicable)  
**ESL STUDY SKILLS** 1.5 UNITS  
Class hours: 3 lecture  (9 weeks)  
Prerequisite: None.  
This course is for the student who plans on entering college classes and wants to improve listening skills and learning techniques. Emphasis is on methods for reading text books efficiently, taking notes, understanding textbook assignments, and preparing for examinations.

ESL 35 (Not degree applicable)  
**EDITING FOR ADVANCED GRAMMAR AND SYNTAX** 1.5 UNITS  
Class hours: 3 lecture/1 lab  (9 weeks)  
Prerequisite: None.  
Corequisite: ESL 100 or equivalent with a grade of Credit or “C” or higher or concurrent enrollment.  
This course is designed for the advanced ESL students in writing courses who need help with grammar troublespots that cause difficulties in writing. Rather than provide English grammar review, the course concentrates on rules to help the student apply general principles. It will aid in finding ways to examine and evaluate writing in terms of grammatical accuracy. This course may be taken for a maximum of 6 units.

ESL 47T (Not degree applicable)  
**ESL TUTORIAL** 0 UNIT  
Class hours: 3 lab  
Open entry/open exit  
Prerequisite: None.  
This is an open-entry/open-exit self-paced course to familiarize students with ESL related Language Center resources to improve English grammar, idiom and standard usage pursuant to independent work. (Formerly ESL 99)
### FRENCH

**ESL 100**
**ESL WRITING AND STRUCTURE 3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: Satisfactory completion of the English As A Second Language Placement Test or ESL 3 or equivalent with a grade of Credit or "C" or higher.
This course reviews syntax and sentence structure. Students write complex sentences in imitative and original essays. Written summaries are also included.
(Formerly ESL 3.1)
Transfer Credit: UC

**ESL 200**
**ESL WRITING AND STRUCTURE 3 UNITS**
Class hours: 3 lecture/1 lab
Prerequisite: Satisfactory completion of the English As A Second Language Placement Test or ESL 100 or equivalent with a grade of Credit or "C" or higher.
Students study the sentence in context. They learn to eliminate mechanical errors and faulty sentence structure from their writing. Students review grammatical structures and punctuation. They write original paragraphs based on personal experience and on ideas drawn from supplemental materials.
(Formerly ESL 4.1)
Transfer Credit: UC

### FINANCE

**SEE BUSF (Business Accounting/Finance)**

### FRENCH

(Non-Title V Associate Degree applicable/credit courses unless otherwise noted)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 101</td>
<td>ELEMENTARY FRENCH 5 UNITS</td>
<td></td>
<td>Pre requisite None.</td>
<td>Credit/&quot;C&quot; or higher</td>
</tr>
<tr>
<td>FREN 202</td>
<td>INTERMEDIATE FRENCH 4 UNITS</td>
<td></td>
<td>Pre requisite: FREN 201 or equivalent with a grade of Credit or &quot;C&quot; or higher.</td>
<td>Credit/&quot;C&quot; or higher</td>
</tr>
<tr>
<td>FREN 203</td>
<td>INTERMEDIATE FRENCH ADVANCED LEVEL 1 4 UNITS</td>
<td></td>
<td>Pre requisite: FREN 202 or equivalent with a grade of Credit or &quot;C&quot; or higher.</td>
<td>Credit/&quot;C&quot; or higher</td>
</tr>
</tbody>
</table>

### GEOGRAPHY

(Science/Engineering/Math Division)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 101</td>
<td>PHYSICAL GEOGRAPHY 3 UNITS</td>
<td></td>
<td>Pre requisite: None.</td>
<td>Credit/&quot;C&quot; or higher</td>
</tr>
<tr>
<td>FREN 281</td>
<td>BEGINNING CONVERSATIONAL FRENCH 3 UNITS</td>
<td></td>
<td>Pre requisite: FREN 102 or equivalent with a grade of Credit or &quot;C&quot; or higher.</td>
<td>Credit/&quot;C&quot; or higher</td>
</tr>
</tbody>
</table>

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Corequisite</th>
<th>Prerequisite</th>
<th>Class Hours</th>
<th>Transfer Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 102</td>
<td>NATURAL AND CULTURAL GEOGRAPHY</td>
<td>3</td>
<td>None</td>
<td>None</td>
<td>3 lecture</td>
<td>CSU; UC</td>
</tr>
<tr>
<td>GEOG 105</td>
<td>WORLD REGIONAL GEOGRAPHY</td>
<td>3</td>
<td>None</td>
<td>None</td>
<td>3 lecture</td>
<td>CSU; UC</td>
</tr>
<tr>
<td>GEOG 106</td>
<td>INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS</td>
<td>3</td>
<td>None</td>
<td>None</td>
<td>2 lecture/3 lab</td>
<td>CSU; UC</td>
</tr>
<tr>
<td>GEOG 257</td>
<td>VIETNAM: COUNTRY AND WAR</td>
<td>3</td>
<td>None</td>
<td>None</td>
<td>3 lecture</td>
<td>CSU; UC</td>
</tr>
</tbody>
</table>

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
emphasis is placed on the fossil record as evidence of organic evolution on planet earth. Laboratory will include specimen identification. Two field trips are required. (Formerly GEOL 7)
Transfer Credit: CSU; UC

GEOL 209
EARTHQUAKES AND VOLCANOES 3 UNITS
Class hours: 2.5 lecture/1.5 lab
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
Corequisite: MATH 60 or equivalent or satisfactory completion of the Math Placement Process.
Recommendation: None.
This course is an introduction to the study of earthquakes and volcanoes including how their origin is explained by the theory of plate tectonics and how new knowledge about them can be applied to the betterment of human welfare. (Formerly GEOL 9)
Transfer Credit: CSU; UC

GERMAN
(Liberal Arts Division)

GERM 101 (CAN GERM SEQ A)(CAN GERM 2)
ELEMENTARY GERMAN 5 UNITS
Class hours: 5 lecture + 1 hr. lab. arr.
Prerequisite: None.
This beginning course emphasizes listening, speaking, reading, and writing, and helps to develop an appreciation of cultural diversity through the study of differences and similarities between cultures. (Formerly GERM 1)
Transfer Credit: CSU; UC

GERM 102 (CAN GERM SEQ A)(CAN GERM 4)
ELEMENTARY GERMAN 5 UNITS
Class hours: 5 lecture + 1 hr. lab. arr.
Prerequisite: GERM 101 or equivalent with a grade of Credit or "C" or higher.
This course provides a continued review and in-depth study of grammatical concepts in the German language. Reading and interpretation of literary works by German writers, and guided and original compositions are included. This class is conducted primarily in German. (Formerly GERM 3)
Transfer Credit: CSU; UC

GERM 201 (CAN GERM SEQ B)(CAN GERM 8)
INTERMEDIATE GERMAN 4 UNITS
Class hours: 4 lecture
Prerequisite: GERM 102 or equivalent with a grade of Credit or "C" or higher.
This course provides a review and an in-depth study of grammatical concepts in the German language. Reading and interpretation of literary works by German writers, and guided and original compositions are included. This course will further develop the appreciation of cultural diversity. This class is conducted primarily in German. (Formerly GERM 4)
Transfer Credit: CSU; UC

GEOL 213
HUMAN GEOLOGY 4 UNITS
Class hours: 4 lecture
Prerequisite: GERM 102 or equivalent with a grade of Credit or "C" or higher.
This course is an introduction to the study of earthquakes and volcanoes including how their origin is explained by the theory of plate tectonics and how new knowledge about them can be applied to the betterment of human welfare. (Formerly GEOL 9)
Transfer Credit: CSU; UC

GERM 202 (CAN GERM SEQ B)(CAN GERM 10)
INTERMEDIATE GERMAN 4 UNITS
Class hours: 4 lecture
Prerequisite: GERM 201 or equivalent with a grade of Credit or "C" or higher.
This course provides a continued review and in-depth study of grammatical concepts and reading and interpretation of literary works by writers of German-speaking countries. Guided and original compositions are included. This class, conducted primarily in German, will further develop the appreciation of cultural diversity. (Formerly GERM 4)
Transfer Credit: CSU; UC

GERM 203 SCIENTIFIC GERMAN 4 UNITS
Class hours: 4 lecture
Prerequisite: GERM 202 or equivalent with a grade of Credit or "C" or higher.
This course provides a review of grammatical concepts in the German language and consists of selected intermediate readings of literary and technical German designed to meet requirements of students majoring in literature, science, mathematics and engineering. (Formerly GERM 5)
Transfer Credit: CSU; UC

GERM 204 SCIENTIFIC GERMAN 4 UNITS
Class hours: 4 lecture
Prerequisite: GERM 203 or equivalent with a grade of Credit or "C" or higher.
This course consists of selected intermediate readings of popular appeal in scientific and technical German taken from texts published recently. It includes a basic grammar review. (Formerly GERM 5)
Transfer Credit: CSU; UC

GERM 281 BEGINNING CONVERSATIONAL GERMAN 3 UNITS
Class hours: 3 lecture
Prerequisite: GERM 102 or equivalent with a grade of Credit or "C" or higher.
This course is recommended for all German majors. (Formerly GERM 8.1)
Transfer Credit: CSU; UC

GERM 282 INTERMEDIATE CONVERSATIONAL GERMAN 3 UNITS
Class hours: 3 lecture
Prerequisite: GERM 281 or equivalent with a grade of Credit or "C" or higher.
This course provides intensive oral practice in the discussion of current topics, including multi-culturalism in German-speaking countries. Emphasis is on the acquisition of special idioms and vocabulary suitable for conversation about the family, the world of work, business, sports, public transportation and ecology. This course, conducted primarily in German, is recommended for all German majors. (Formerly GERM 8.2)
Transfer Credit: CSU; UC

GERM 283 ADVANCED CONVERSATIONAL GERMAN 3 UNITS
Class hours: 3 lecture
Prerequisite: GERM 282 or equivalent with a grade of Credit or "C" or higher.
This course provides intensive oral practice in the discussion of controversial topics, expressing informed opinions regarding current affairs, the arts and political issues. Emphasis is on the acquisition of appropriate vocabulary and language patterns, and the creative development of arguments. This course, conducted in German, is recommended for all German majors. (Formerly GERM 8.3)
Transfer Credit: CSU; UC

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
Announcement of Courses

GERM 291
GERMAN FOR INTERNATIONAL COMMERCE 3 UNITS
Class hours: 3 lecture
Prerequisite: GERM 102 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: GERM 201 or equivalent with a grade of Credit or "C" or higher.
This course will further introduce students to the vocabulary used in German business and economy and will give insight into the customs used in the German business world where they differ from American customs.
(Formerly GERM 9/GERM 9.1)
Transfer Credit: CSU

GERM 292
GERMAN FOR INTERNATIONAL COMMERCE 3 UNITS
Class hours: 3 lecture
Prerequisite: GERM 102 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: GERM 201 or equivalent with a grade of Credit or "C" or higher.
This course will further introduce students to the vocabulary used in German business and economy and will give insight into the customs used in the German business world where they differ from American customs.
(Formerly GERM 69.5/GERM 9.2)
Transfer Credit: CSU

GRAPHIC DESIGN
SEE ART
(Art and Design)

HEALTH EDUCATION
(HPER/ Athletics Division)

HED 110
COMMUNITY FIRST AID AND CPR 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course introduces the skills required to provide basic life support in an emergency illness or injury. The course includes adult, infant, and child CPR and First Aid. Upon successful completion of all tests, students will be issued an American Red Cross card for Community First Aid (3 years) and CPR (1 year). (Formerly HED 9)
Transfer Credit: CSU; UC

HEALTH OCCUPATIONS
(Health Occupations Division)

HO 9 (Not degree applicable)
EMERGENCY MEDICAL TECHNICIAN I 3 UNITS
Class hours: 3 lecture
Prerequisite: Current CPR for Professional Rescuer Certification (minimum of 8 hours)
Corequisite: HO 9L.
This course teaches the emergency medical technician the basic knowledge, skills, and attitudes necessary to perform prehospital emergency care service.
Three major modules will cover basic life support, evaluation for immediate care, and specialized medical procedures. A Certificate of Completion is awarded after successful completion of the written and practical examinations. This course may be taken for a maximum of 6 units.

HO 9L (Not degree applicable)
EMERGENCY MEDICAL TECHNICIAN I LAB 2 UNITS
Class hours: 3 lab and 3 hours arranged field experience.
Prerequisite: Completion of current immunization requirements for affiliating clinical agencies. Current CPR for Professional Rescuer Certification (minimum of 8 hours).
Corequisite: HO 9.
This course is designed to teach the student the practical skills necessary to perform prehospital emergency care service. Areas include assessment skills, equipment utilization, hospital and ambulance clinical experience. This course may be taken for a maximum of 4 units. Uniforms will be required. (Formerly HO 9.1)

HO 50
EMERGENCY AND SAFETY MANAGEMENT 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
This course for allied health students will cover cardiopulmonary resuscitation and first aid techniques as specified by the American Red Cross. Topics will include one-and-two person CPR for infants, children, and adults; resuscitation with mask and bag-valve mask; and early intervention for wounds, burns, trauma and sudden illness. A Professional Rescuer CPR Card valid for one year and a Standard First Aid Certificate valid for three years will be earned with successful completion of the course. (Formerly HO 32)

HO 53
ELECTROCARDIOGRAPHY 1 UNIT
Class hours: 2 lecture/3 lab (6 weeks)
Prerequisite: None.
Corequisite: Current CPR for Professional Rescuer Certification
Recommendation: None.
This course will provide the student with knowledge and skills concerning the theoretical and procedural requirements for performing electrocardiography. This course follows the guidelines set forth by both state and national regulations. This course is not open to students who have received credit for MA 43. (Formerly HO 10)

HO 54
MEDICAL LABORATORY SKILLS 1 UNIT
Class hours: 2 lecture/3 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will provide the student with knowledge and skills concerning the theoretical and procedural requirements for performing several lab procedures. This course follows guidelines set forth by both state and national regulations including, but not limited to, the parameters of waived testing as set by CLIA (Clinical Laboratory Improvement Act of 1988). This course is not open to students who have received credit for MA 43. (Formerly HO 11)

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
Announcement of Courses

HO 55
PHLEBOTOMY PROCEDURES 1 UNIT
Class hours: 2 lecture/3 lab (6 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will provide the student with knowledge and skills concerning the theoretical and procedural requirements for performing venipuncture and capillary puncture. The student will acquire a background knowledge of blood composition, develop skills in performing basic blood testing, and learn to operate the equipment used in these procedures. The course follows guidelines set forth by both state and national regulations. This course is not open to students who have received credit for MA 43. (Formerly HO 12)

HO 56
MEDICATION CALCULATIONS 1 UNIT
Class hours: 2 lecture (9 weeks)
Prerequisite: MATH 40 or equivalent with a grade of Credit or “C” or higher or successful completion of the Math Placement process.
This course presents skills and concepts utilized to calculate drug dosage. Problem solving, application of basic algebraic concepts, formulas, proportional relationships, systems of measurement, and measurement system conversions will be included. This course may be taken for a maximum of 2 units. (Formerly NRSG 4)

HO 151
ELEMENTS OF NUTRITION 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
This course is an introduction to the basic principles of nutrition. Course content includes daily nutrient requirements, life cycle needs, food selection and meal planning for health. Weight maintenance strategies and consumer information are included. This course is designed to meet the requirement for medical assisting and culinary arts’ majors and also meets the minimum requirement for nursing majors. (Formerly HO 51)
Transfer Credit: CSU

HO 152
NORMAL AND THERAPEUTIC NUTRITION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: A&P 130 or equivalent with a grade of Credit or “C” or higher.
This course is an introduction to basic principles of normal and therapeutic nutrition. Emphasis is placed on nutritional requirements and food selection in health and disease. Course content includes life cycle needs, weight maintenance strategies and discussion of common medical disorders and their relation to diet. This course is designed to meet the requirement for dental hygiene and nursing majors. (Formerly HO 52)
Transfer Credit: CSU

HO 236
LIFE SPAN/HEALTH ISSUES 1 1 UNIT
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course presents an application of the concepts and principles of growth and development as they relate to the delivery of health care. Content includes discussion of health concerns and issues at various age levels. Emphasis will be placed upon physical, cognitive and psychosocial assessment of individuals from infancy through school-age.
Transfer Credit: CSU

HO 237
LIFE SPAN/HEALTH ISSUES 2 1 UNIT
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course presents an application of the concepts and principles of growth and development as they relate to the delivery of health care. Content includes discussion of health concerns and issues at various age levels. Emphasis will be placed upon physical, cognitive and psychosocial assessment of individuals from adolescence through older adulthood.
Transfer Credit: CSU

HISTORY
(Humanities/ Social Sciences Division)

HIST 101
AMERICAN HISTORY AND CONSTITUTION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 20 or equivalent with a grade of Credit or “C” or higher and satisfactory completion of the Reading Placement Process or READ 43 with a grade of Credit or “C” or higher.
Transfer Credit: CSU; UC

HIST 110
AFRICAN-AMERICAN HISTORY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 20 or equivalent with a grade of Credit or “C” or higher and satisfactory completion of the Reading Placement Process or READ 43 with a grade of Credit or “C” or higher.
This course is a survey of the political, legal, economic, and social position and role of African-Americans in the history of the United States. Special emphasis will be given to the contributions of African-Americans in all aspects of American culture. (Formerly HIST 35)
Transfer Credit: CSU, UC

HIST 120
HISTORY OF CALIFORNIA 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 20 or equivalent with a grade of Credit or “C” or higher and satisfactory completion of the Reading Placement Process or READ 43 with a grade of Credit or “C” or higher.
This course is an historical examination of the cultural, political, and economic forces that have shaped contemporary California. It focuses on the roles played by the diverse people who shared in its development from early Native American societies through the Spanish and Mexican periods and U. S. conquest to the present. (Formerly HIST 39)
Transfer Credit: CSU; UC

HIST 201
POLITICAL AND SOCIAL HISTORY OF THE UNITED STATES 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or “C” or higher.

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
A study of United States history tracing the development of American ideals and actions from the Pre-Revolutionary Period through the Civil War Era. Major political, social, economic, and cultural factors will be presented focusing on the roles played by the diverse peoples and cultures who shared in the development of United States history. An emphasis may be placed on one or more of these factors. (Formerly HIST 7.1)

Transfer Credit: CSU; UC

**HIST 202**  
**POLITICAL AND SOCIAL HISTORY OF THE UNITED STATES 3 UNITS**

Class hours: 3 lecture  
Prerequisite: None.  
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or “C” or higher.

A survey of cultural, diplomatic, economic, ethnic, political and social trends in recent United States history from 1877 to the present, focusing on the roles played by the diverse peoples and cultures who shared in the development of the United States. An emphasis may be placed on one or more of these factors. (Formerly HIST 7.2)

Transfer Credit: CSU; UC

**HIST 210**  
**HISTORY OF THE UNITED STATES IN THE POST WORLD WAR II ERA 3 UNITS**

Class hours: 3 lecture  
Prerequisite: 3 lecture  
Corequisite: None.  
Recommendation: Satisfactory completion of the Reading Placement Process or READ 54 or equivalent with a grade of Credit or “C” or higher and satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.

This lecture/discussion course examines and analyzes the development of the United States from 1945 to the present. Attention is given to the political, social, intellectual, cultural, and economic changes in American society. Included as areas of inquiry will be the impact of the Cold War on foreign and domestic policies and society; the effect of social protest movements on society; the interconnected influence of economic, demographic, and cultural changes on policy and society; the expansion and contraction of the social welfare state; the ways that the Vietnam conflict, emergence of multiculturalism, and the new environmentalism have shaped contemporary policy and attitudes, and the pervasive and lasting influence of mass culture, technology and media. (Formerly HIST 7.1)

Transfer Credit: CSU; UC

**HIST 220**  
**HISTORY OF THE AMERICAS 3 UNITS**

Class hours: 3 lecture  
Prerequisite: None.  
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or “C” or higher.

This course covers the histories of Latin America, Canada, and the United States as an integrated whole. Emphasis is given to the Pre-Columbian setting, Native American heritage, the European conquest and legacy, distinctive colonial institutions, and the growth of independence movements. Major political, social, economic, and cultural factors will be presented focusing on the roles played by the diverse people and cultures who shared in the development of the nations of the Western Hemisphere. (Formerly HIST 8.1)

Transfer Credit: CSU; UC

**HIST 221**  
**HISTORY OF THE AMERICAS 3 UNITS**

Class hours: 3 lecture  
Prerequisite: None.  
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or “C” or higher.

This course is a study of the histories of the United States, Canada, and the nations of the Western Hemisphere. Major political, economic, social, and cultural factors and issues are presented with emphasis given to emerging international relations within the Western Hemisphere during the nineteenth and twentieth centuries. (Formerly HIST 8.2)

Transfer Credit: CSU; UC

**HIST 230**  
**HISTORY OF MEXICO 3 UNITS**

Class hours: 3 lecture  
Prerequisite: None.  
Recommendation: Satisfactory completion of the English Placement Process or ENGL 20 or equivalent with a grade of Credit or “C” or higher and satisfactory completion of the Reading Placement Process or READ 43 with a grade of Credit or “C” or higher.

This course is an examination of the origins and evolution of the cultural, social, economic and political institutions, trends, events, issues, and leading personalities of Mexican History from the Pre-Columbian period to contemporary society. (Formerly HIST 31)

Transfer Credit: CSU; UC

**HIST 240**  
**WESTERN CIVILIZATION 3 UNITS**

Class hours: 3 lecture  
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.

History 240 is a survey of the development of Western Civilization from the pre-historic era through the mid-seventeenth century A.D. It focuses on the contributions to this development of ancient Sumer, Egypt, classical Greece, Rome, Christianity, Byzantium, Islam, the Middle Ages, the Renaissance, and the Reformations. It acquaints students with the basic institutions, personalities, documents, and writings of the Western world which have influenced contemporary events. (Formerly HIST 4.1)

Transfer Credit: CSU; UC

**HIST 241**  
**WESTERN CIVILIZATION 3 UNITS**

Class hours: 3 lecture  
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.

History 241 is a survey course in the history of modern Europe and the Western world from the mid-seventeenth century to the present. It emphasizes broad economic, social and changing political trends, with special attention given to the role of science, the arts and technology in creating the modern world. (Formerly HIST 4.2)

Transfer Credit: CSU; UC
### Announcement of Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Class Hours</th>
<th>Prerequisite(s)</th>
<th>Corequisite(s)</th>
<th>Transfer Credit: CSU; UC</th>
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</thead>
<tbody>
<tr>
<td>HIST 245</td>
<td>World Civilization from Antiquity to 1500</td>
<td>3</td>
<td>3 lecture</td>
<td>None</td>
<td>None</td>
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<tr>
<td>HIST 250</td>
<td>History of England, Great Britain and the Commonwealth</td>
<td>3</td>
<td>3 lecture</td>
<td>None</td>
<td>None</td>
<td>CSU; UC</td>
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<tr>
<td>HIST 255</td>
<td>History of Russia and the Soviet Union</td>
<td>3</td>
<td>3 lecture</td>
<td>None</td>
<td>None</td>
<td>CSU; UC</td>
</tr>
<tr>
<td>HIST 257</td>
<td>Vietnam: Country and War</td>
<td>3</td>
<td>3 lecture</td>
<td>None</td>
<td>None</td>
<td>CSU; UC</td>
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<tr>
<td>HIST 260</td>
<td>Survey of the History of Asia</td>
<td>3</td>
<td>3 lecture</td>
<td>None</td>
<td>None</td>
<td>CSU; UC</td>
</tr>
<tr>
<td>HIST 265</td>
<td>Selected Problems in Contemporary Asian History</td>
<td>3</td>
<td>3 lecture</td>
<td>None</td>
<td>None</td>
<td>CSU; UC</td>
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<tr>
<td>HIST 270</td>
<td>Special Topics in History</td>
<td>3</td>
<td>3 lecture</td>
<td>None</td>
<td>None</td>
<td>CSU; UC</td>
</tr>
<tr>
<td>HUM 100</td>
<td>The Art of Being Human</td>
<td>3</td>
<td>3 lecture</td>
<td>None</td>
<td>None</td>
<td>CSU; UC</td>
</tr>
</tbody>
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### Humanities (Fine Arts/Communications Division)

- **HUM 100** The Art of Being Human 
  - Class hours: 3 lecture
  - Prerequisite: None
  - This is an introductory humanities course which considers the great works of humanity through the ages in painting, music, architecture, sculpture, dance, literature, and philosophy as they relate to the universal problems of humankind and today’s students. Everyone will be encouraged to develop his/her own doctrine of humanity.
  - Transfer Credit: CSU; UC

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All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
HUM 103 HUMANITIES THROUGH THE ARTS 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
This course is a survey of the human condition as seen through film, drama, music, literature, painting, sculpture and architecture with an emphasis on history, techniques, meaning and evaluation of individual works of western art. (Formerly HUM 3)
Transfer Credit: CSU

(Science/ Engineering/ Math Division)

HUM 104 SCIENCE, LITERATURE AND HUMAN INSIGHT 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course is an interdisciplinary, intercultural, team-taught course in which students learn to apply the principles of comparative critical analysis in order to better understand the relationships among literature, science, and technology. Through their study of literature, students learn about human values, behavior, and motivations; through their study of scientific and technological achievements, they learn about the methods and limitations of science. Major historical and contemporary themes linking science and literature are presented for evaluation. (Formerly HUM 4)
Transfer Credit: CSU; UC

(Humanities/ Social Sciences Division)

HUM 105 ENCOUNTERS WITH LIVING FAITHS 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
This course is a study about man's religious experience based on a series of encounters with men and women of four continents who are living their faiths now. It focuses on the meaning of religion for individual people. From Protestant churches of Indianapolis to the Zen monasteries of Japan, the course is concerned with looking beyond the splendid and the exotic and toward the meaning of religion for individual people. (Formerly HUM 5)
Transfer Credit: CSU

INDUSTRIAL ARTS
(Technology Division)
(FOR ADDITIONAL COURSES SEE ELECTRONICS, WOODWORKING MANUFACTURING TECHNOLOGIES, AUTOMOTIVE REPAIR, AND PLASTICS MANUFACTURING TECHNOLOGY)

IA 20 (Not degree applicable)
A SURVEY OF AUTOMATED MANUFACTURING FOR NON-TECHNICAL PERSONNEL (Elementary Robotics) 1 UNIT
Class hours: 4 lecture (6 weeks)
Prerequisite: None
This course provides an overview of the current robotics industry, starting with a brief history and followed by a review of the basic terms used in the field. The robots are classified by geometry, power source, application, path control, and intelligence. The operation of different types of end effectors is covered, along with robot controllers and the basic system sensors. Programming techniques are covered.

JAPANESE
(Liberal Arts Division)

JAP 101 ELEMENTARY JAPANESE 5 UNITS
Class hours: 5 lecture + 1 hr. lab. arr.
Prerequisite: None.
This beginning Japanese course emphasizes listening, reading, writing, and speaking and helps to develop the appreciation of cultural diversity through the study of differences and similarities between cultures. (Formerly JAPN 1)
Transfer Credit: CSU; UC

JAP 102 ELEMENTARY JAPANESE 5 UNITS
Class hours: 5 lecture + 1 hr. lab. arr.
Prerequisite: JAP 101 or equivalent with a grade of Credit or "C" or higher.
This beginning course continues to emphasize listening, reading, and writing, and speaking and helps to continue to develop the cultural diversity through the study of differences and similarities between cultures. (Formerly JAP 2)
Transfer Credit: CSU; UC

JAP 201 INTERMEDIATE JAPANESE 5 UNITS
Class hours: 5 lecture, 1 lab
Prerequisite: JAP 102 or equivalent with a grade of Credit or "C" or higher.
This course provides a review and in-depth study of Japanese grammatical concepts. Reading and interpretation of literary works by Japanese writers and guided and original compositions are included. This course will further develop the appreciation of cultural diversity. This class is primarily conducted in Japanese. (Formerly JAPN 3)
Transfer Credit: CSU; UC

JAP 202 INTERMEDIATE JAPANESE 4 UNITS
Class hours: 4 lecture
Prerequisite: JAP 201 or equivalent with a grade of Credit or "C" or higher.
This is a course with emphasis on reading modern Japanese. It continues the review of grammatical concepts, and requires written composition and oral discussion. This course, conducted primarily in Japanese, completes the study of all aspects of the Japanese language at the intermediate level. (Formerly JAPN 4)
Transfer Credit: CSU; UC

JAP 281 BEGINNING CONVERSATIONAL JAPANESE 3 UNITS
Class hours: 3 lecture
Prerequisite: JAP 201 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course gives the student practice in speaking and understanding Japanese as used in travel, in the home, in school, and in everyday life. Emphasis is placed on vocabulary, idioms and language patterns fundamental to an active and practical use of Japanese. This course develops the appreciation of the Japanese culture. It is recommended for all Japanese majors. (Formerly JAPN 8.1)
Transfer Credit: CSU; UC

JAP 282 INTERMEDIATE CONVERSATIONAL JAPANESE 3 UNITS
Class hours: 3 lecture
Prerequisite: JAP 281 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course provides intensive oral practice in the discussion of current topics, including multiculturalism in Japanese-speaking coun-
tries. Emphasis is on the acquisition of special idioms and vocabulary suitable for conversation about the family, the world of work, business, sports, public transportation and ecology. This course, conducted primarily in Japanese, is recommended for all Japanese majors. (Formerly JAPN 8.2)
Transfer Credit: CSU; UC

JAPN 283
ADVANCED CONVERSATIONAL JAPANESE 3 UNITS
Class hours: 3 lecture
Prerequisite: JAPN 282 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course provides intensive oral practice in discussion of controversial topics and expressing informed opinions regarding current affairs, the arts, and political issues. Emphasis is on the acquisition of appropriate vocabulary and language patterns, and the creative development of arguments. This course, conducted in Japanese, is recommended for all Japanese majors. (Formerly JAPN 8.3)
Transfer Credit: CSU; UC

JOURNALISM
(Fine Arts/Communications Division)

JOUR 50L
EDITORIAL BOARD 1 UNIT
Class hours: 3 lab
Prerequisite: None.
Corequisite: JOUR 103 or JOUR 105 or JOUR 160L.
Limitation of enrollment: editors of campus media.
Recommendation: None.
This course focuses on leadership aspects using the school newspaper, the Talon Marks, and the school magazine, Wings, as practical laboratories. Enrollments are limited to those named to editor positions of these campus media. This course may be taken for a maximum of 3 units. (Formerly JOUR 59)
Transfer Credit: CSU; UC

JOUR 104
SUMMER NEWSPAPER ARTICLE WRITING 1 UNIT
Class hours: 1 lecture/3 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: JOUR 101 and ENGL 52 or equivalents with grades of Credit or "C" or higher, or concurrent enrollment.
This course focuses on media article writing using the school newspaper, the Talon Marks, as a practical laboratory during summer school sessions. Students research, write and edit articles for the school paper as they practice the skills of gathering information from a variety of sources. Students synthesize the stories and prepare them for dissemination. Ethical and legal aspects of communication are also covered. This course may be repeated for a maximum of 3 units. (Formerly JOUR 54)
Transfer Credit: CSU

JOUR 105
NEWSPAPER PRODUCTION 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: ART 188 or CIS 205 or JOUR 120 or equivalent with a grade of Credit or "C" or higher.
This course uses desktop publishing. World Wide Web publishing and photojournalistic techniques for publishing of information. The school newspaper, Talon Marks, is used as a practical laboratory. Presentation of information in a visual form is emphasized. This course is for page designers, graphic artists, cartoonists and photographers. This course may be taken for a maximum of 8 units. Credit/No Credit option available for non-journalism majors. (Formerly JOUR 55)
Transfer Credit: CSU

JOUR 106
SUMMER NEWSPAPER PRODUCTION 1 UNIT
Class hours: 1 lecture/3 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: ART 188, CIS 205, JOUR 120 or equivalents with grades of Credit or "C" or higher.
This course uses desktop publishing, World Wide Web publishing, and photojournalistic techniques for publishing information to produce the school newspaper, the Talon Marks, during the summer session. Presentation of information in a visual form is emphasized. This course is for page
designers, graphic artists, cartoonists, and photographers. This course may be repeated for a maximum of 3 units. (Formerly JOUR 56)
Transfer Credit: CSU

JOUR 110
PRINCIPLES OF PUBLIC RELATIONS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This class explores the basic theories and principles of communicating information and concepts. Emphasis is on techniques and methods, with attention given to identifying audiences, using public relations tools, planning public relations programs and campaigns, promoting favorable relations with various segments of the public, and dealing with problem solving. The effective use of public information, publicity, and advertising is covered. (Formerly JOUR 23)
Transfer Credit: CSU

JOUR 120
INTERNET FOR JOURNALISTS 2 UNITS
Class hours: 2 lecture
Prerequisite: CIS 121 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course will provide a basic introduction to resources found on the Internet and the World Wide Web. Students will access the Internet to research trends in media use of the World Wide Web and learn to create online news and journalistic web pages. This course may be taken for a maximum of 8 units. (Formerly JOUR 26)
Transfer Credit: CSU

JOUR 130
PHOTO JOURNALISM 3 UNITS
Class hours: 3 lecture
Prerequisite: PHOT 100 or equivalent with a grade of Credit or “C” or higher.
This course deals with the photographer as a journalist, focusing on theory and practice in press and publications photography, with emphasis on using the camera as a reporting and communications tool. Covered are news and feature photography and photographic essays, including composition, impact, and creativity, for newspapers, magazines, Internet and other mass communications media. Students must have access to a 35 mm camera. (Formerly JOUR 32)
Transfer Credit: CSU

JOUR 160L
COLLEGE MAGAZINE PRODUCTION 1 UNIT
Class hours: 3 lab
Prerequisite: JOUR 101 or equivalent with a grade of Credit or “C” or higher.
Corequisite: JOUR 103 or JOUR 105.
This course offers study and practical experience in planning content and layout, and in editing the college magazine, Wings. It provides a format for the application of photojournalism and feature article writing skills. This course may be taken for a maximum of 8 units. (Formerly JOUR 60)
Transfer Credit: CSU

JOUR 170
BROADCAST NEWS 1 UNIT
Class hours: 3 lab (9 weeks)
Prerequisite: Concurrent enrollment or completion of JOUR 101 with a grade of Credit or “C” or higher.
Corequisite: Concurrent enrollment or completion of JOUR 103 and/or concurrent enrollment or completion of TH 152.
Recommendation: Concurrent enrollment or completion of JOUR 103 and/or concurrent enrollment or completion of TH 152.
This nine-week course focuses on broadcast newswriting and production techniques using the college radio station, KCEB, as a practical laboratory. Students will develop and research story ideas for regular news broadcasts KCEB. Newsgathering and reporting for broadcast will be emphasized, along with ethics and legal aspects of communication. This course may be taken for a maximum of 4 units. (Formerly JOUR 70)
Transfer Credit: CSU

JOUR 201
ADVANCED REPORTING AND EDITING 3 UNITS
Class hours: 3 lecture
Prerequisite: JOUR 101 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
This course covers advanced theory and practice in newswriting and reporting with emphasis on handling of news, editing complex stories, copyreading, headline writing, opinion writing, news release writing, sports feature writing, news release writing, and writing news for World Wide Web presentation. (Formerly JOUR 21)
Transfer Credit: CSU; UC

JOUR 220
FEATURE ARTICLE WRITING 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher, and typing ability.
This course covers non-fiction writing for newspapers and magazines, including a study of story types, sources, methods, and markets. Individualized styles and approaches will be studied. (Formerly JOUR 22)
Transfer Credit: CSU

JOUR 225
MAGAZINE EDITING AND DESIGN 2 UNITS
Class hours: 2 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
This course serves as a foundation for students desiring to participate in the production of school magazines or yearbooks. It includes a study of and practice in planning and layout, copy, methods of printing, covers and binding, financing, photography, commercial art, advertising, and editing. It is recommended for majors in journalism, advertising, and commercial art. (Formerly JOUR 25)
Transfer Credit: CSU

LIBRARY

LIBR 100
INTRODUCTION TO LIBRARY RESOURCES 1 UNIT
Class hours: 1 lecture/1 lab arranged
Prerequisite: None.
This is an open-entry, open-exit, self-paced course which emphasizes the use of library methods and materials that will enable students to locate information for course-related study and research. This course is of special value to those students intending to transfer to four-year institutions. This course is to be offered on a credit/no credit basis. (Formerly LIBR 10)
Transfer Credit: CSU; UC
MACHINE MOLDMAKING FOR
PLASTICS
(Technology Division)

MMP 50
FUNDAMENTALS OF MACHINE
MOLDMAKING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course will provide the student with an understanding of the process of making molds for the plastics industry using machine tooling. The basic concepts of machine tooling, the design and construction of molds and mold materials, and machining fundamentals pertaining to standard shop practice will be included. (Formerly MMP 21)

MMP 51
INJECTION AND
EXTRUSION MOLDS 3 UNITS
Class hours: 3 lecture
Prerequisite: MMP 50 or equivalent with a grade of Credit or “C” or higher. Corequisite: None.
This is a course in the theory and application of the making of injection and extrusion molds. It will cover in-depth hot runner systems, ejector systems, slide mechanisms, and control systems. This course should be taken concurrently with machine tool classes to provide laboratory experiences. (Formerly MMP 31)

MMP 52
COMPRESSION, TRANSFER AND
VACUUM FORMING MOLDS 3 UNITS
Class hours: 3 lecture
Prerequisite: MMP 50 or equivalent with a grade of Credit or “C” or higher. Corequisite: None.
The student taking this course in conjunction with machine tool courses will be able to design, manufacture, inspect, and install for trial runs the less complicated molds used in injection, compression, transfer, extrusion and vacuum forming processes. (Formerly MMP 32)

MACHINE TOOL TECHNOLOGY
(Technology Division)

MTT 1L (Not degree applicable)
NUMERICAL CONTROL SPECIALTY 1 UNIT
Class hours: 3 lab
Prerequisite: MTT 170 or equivalent with a grade of Credit or “C” or higher.
This course is an independent study on an experimental and research basis, using CAM software or CNC programming skill and knowledge in specialized areas of the student’s choice with the approval and guidance of the department chairperson. The course may be taken for a maximum of 4 units. (Formerly CNC 46/MTT 46)

MTT 50
CNC SHOP MATH 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to teach the student how to solve typical and practical mathematical shop problems using a calculator and The Machinery’s Handbook. Particular emphasis will be placed on solving problems of ratio and proportion, measurement system conversion, plane geometry, and right triangles as applied to machine fabricated parts. (Formerly CNC 9/MTT 9)

MTT 51
CNC BLUEPRINT READING 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: MTT 50 or equivalent with a grade of Credit or “C” or higher or concurrent enrollment.
Corequisite: None.
Recommendation: None.
This course is designed to familiarize the student with blueprints and the conversion of blueprint data to workable fabrication data unique to the CNC machine shop. It will cover tool offset conversion, location, and identification of missing and pertinent coordinates, ANSI Y-14.5, visualization, and identification of attributes important to CNC programming. (Formerly CNC 15/MTT 15)

MTT 52
SUPPLEMENTAL MACHINE
SHOP STUDIES 2 UNITS
Class hours: 4 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to give the student machining knowledge of blueprint reading, metallurgy, metrology, tooling, and use of the Machinery’s Handbook. (Formerly MTT 19)

MTT 54
CNC SHOP INSPECTION 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: MTT 52 or equivalent with a grade of Credit or “C” or higher or concurrent enrollment.
Corequisite: None.
Recommendation: None.
This course is designed to give the student a complete understanding of metrology and to develop skills in using all of the instruments available in the shop for validation of part geometry. (Formerly CNC 7/MTT 7)
MTT 60
ADVANCED MACHINE TOOL CONCEPTS 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: MTT 100 or equivalent with grades of Credit or “C” or higher or equivalent.

This course is designed to extend the students’ skills in modern machine tool operation and set up as well as to augment their knowledge of conventional and automated process techniques. Coursework includes refining complex geometric inspection techniques, developing advanced skills in lathe and mill setup, materials science, and learning Computer Aided Process Planning (CAPP). (Formerly CNC 3/MTT 3)

MTT 62
FIXTURE TOOLING 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: MTT 54 and MTT 60 or equivalent with grades of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.

This course teaches planning, design, and fabrication of fixtures for the CNC shop. It includes decision making, machine planning, cutter selection, tolerancing, rest areas, clamping, blueprint interpretation, and design. (Formerly CNC 5/MTT 5)

MTT 76
CAD/CAM VIRTUAL GIBB 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: MTT 170 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.

This course prepares students to operate the Virtual Gibbs Programming System in conjunction with various multi-axis Computer Numerical Control (CNC) machinery. Students learn how to construct and import engineering geometry, to create tool paths, and to post process for specific machinery. (Formerly CNC 53/MTT 53)

MTT 80
CAD/CAM MOLD MACHINING 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: PMT 65, MTT 60, and MTT 170 or equivalent with grades of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.

This course is designed to instruct the student in the use of CNC and CAD/CAM to produce injection molds. Students will call upon design knowledge gained in the PMT 22 course and apply it to fabrication of tooling. An injection mold design from PMT 22 will be processed and fabricated. (Formerly CNC 62/MTT 62)

MTT 100
MACHINE TOOL INTRODUCTION 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.

This course is designed as a survey of machine tool technology and introduction to computerized controls. It will include the computer as a control mechanism in the modern machine shop and also stress traditional machine tool technologies. It includes set-up and operation of basic machine tools, speeds and feeds, measurements, and introduction to the theory of computer numerical control. This course is required for Computer Numerical Control majors and other designated technology programs. (Formerly CNC 1/MTT 1)
Transfer Credit: CSU

MTT 154
SHOP FLOOR COMMUNICATIONS AND POST PROCESSING 4 UNITS
Class hours: 3 lecture/3 lab
Prerequisite: None.
Corequisite: MTT 51 or equivalent with a grade of Credit or “C” or higher.

This course is designed to provide the student with the skills required to manage data flow and data translation in a computer numerical control factory environment. Course work includes data management techniques, shop floor protocols, BASIC language introduction, and post processing of cut vectors via vendor supplied programs. (Formerly CNC 54/MTT 54)
Transfer Credit: CSU

MTT 170
COMPUTER NUMERICAL CONTROL PROGRAMMING 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: MTT 50 and MTT 100 or equivalent courses with grades of Credit or “C” or higher or concurrent enrollment, or appropriate work experience.

This course includes numerical control programming as applied to machine tools including a description of control systems and the capabilities of each. Students will develop CNC machine tool programs to make manufactured parts. Computers will be used to input, develop and proof CNC programs. This course is for the student who desires to be a machine tool operator, programmer, or who will be employed in related fields. (Formerly CNC 11/MTT 11)
Transfer Credit: CSU

MTT 172
PARTS PROGRAMMING 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: MTT 170 or equivalent with a grade of Credit or “C” or higher.

This course will include manual and computer assisted programming techniques that will be applied to numerically controlled machine tools. Students will work on projects that include manuscript preparation, tape generation, and verification for numerically controlled machines with an emphasis on advanced aspects of machine control program. (Formerly CNC 21/MTT 21)
Transfer Credit: CSU

MTT 278
CAD/CAM ADVANCED 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: MTT 51 with a grade of Credit or “C” or higher or appropriate work experience.

This course advances the student's skill in the development of 3D surface models and tool paths using Mastercam. Students learn to create swept, ruled, revolved, Coons, draft, trimmed, and lofted surfaces using parametric and NURBS methodology. Modification of geometry/toolpath using parametric hooks will be emphasized. (Formerly CNC 55/MTT 55)
Transfer Credit: CSU

MANUFACTURING TECHNOLOGY
(Technology Division)

MFGT 50
HAZ-MAT 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.

This course is a survey of the knowledge and skills that allow a person to work with hazardous materials in compliance with governmental regulations while at the same time to protect human health and the environment. Specific examples will include industry specific compliance, regulations, and controls. This includes an introduction to...
Material Safety Data Sheets (MSDS) and basic materials handling as is typical in local industries. (Formerly MFGT 12/MFGT 30)

MFGT 43/44 (Not degree applicable)
MANUFACTURING TECHNOLOGY OCCUPATIONAL WORK EXPERIENCE 3-4 UNITS
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Manufacturing Technology work experience 73 or 20 hours of employment per week for Manufacturing Technology work experience 74. The employment must be in a job related to the student's educational goal. Corequisite: (1) Enrollment in the Manufacturing Technology vocational program with 7 or more units including occupational work experience.
Work experience/career internship provides the opportunity for Manufacturing Technology students to apply skills and knowledge learned in the classroom to related experiences on the job/training site. The aim of the course is to assist students in expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college, and the employer/trainers. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to the major and job skills must be completed on the job/training site. These courses may be taken for a maximum of 15-16 units. (Formerly MFGT 73/74)

MFGT 51
INTRODUCTION TO COMPUTER INTEGRATED MANUFACTURING (CIM) 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course examines the relationships between management, design, and manufacturing of a product. Students will be introduced to the multi-faceted operations of the manufacturing industry. Case studies and demonstrations will be used to explore the development and implementation of an automated factory. This course is not open to students who have received credit in BCIS 46. (Formerly MFGT 46)

MFGT 52
INTRODUCTION TO LASER CUTTING TECHNOLOGY 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
This introductory laser cutting technology class will cover a variety of subjects, starting with an explanation of the laser itself and its history. Discussions will be held on the interface of a laser with material movement system, the different types of systems in the field, and the process required to process materials. Demonstrations and visitation(s) to local industry sites are included. (Formerly MFGT 69.7/MFGT 50)

MFGT 53
STATISTICAL PROCESS CONTROL (SPC) 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: TM 50 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
This technical course is for quality assurance personnel interested in applying statistical process control concepts. Materials covered include statistical methods for use in quantitative approaches to quality assurance and reliability including basic algebraic notation and formulation, functions, graphical analysis, probability laws, measures of central tendency and dispersion, frequency distributions, sampling plans and risks, control charts, and process capability studies. (Formerly MFGT 69.14/MFGT 14)

MFGT 54
ULTRASONIC LEVEL I TESTING 1.5 UNITS
Class hours: 3.5 lecture/1 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with background knowledge in the operation of basic ultrasonic testing equipment. Skill development required in understanding and operating basic ultrasonic testing equipment for the inspection of composite and metallic components is emphasized. (Formerly MFGT 36)

MFGT 55
QUALITY CONTROL (QC) 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides basic and comprehensive details of quality control concepts for those new to or already in the manufacturing field. Areas covered include quality costs, product liability, reliability and acceptance sampling. Techniques of using production charts, graphs and tables are covered to emphasize quality improvement with manufacturing sampling. Actual case studies and current manufacturing quality issues and concerns will be studied. Related terms and methods of Quality Assurance (QA), Total Quality Management (TQM), International Standards Organization (ISO) 9000 quality standards, Statistical Process Control (SPC), just in time (JIT) as well as other quality tools will be outlined and identified. (Formerly MFGT 11)

MFGT 56
ISO 9000 QUALITY STANDARDS 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This survey course is a study of ISO 9000, the quality standard established by the International Standard Organization, as it applies to the manufacturing industry. Materials covered will include the ISO 9000 documents and selected references on the topic. Special emphasis will be placed on the advantages of implementing an ISO 9000 Quality System in an industrial manufacturing environment.

MFGT 57
TOTAL QUALITY MANAGEMENT (TQM) 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This survey course examines the nature and application in manufacturing of Total Quality Management (TQM) in today's competitive environment. Students will be introduced to basic concepts of quality and why its philosophy of continuous improvement will provide the framework for production systems. The “team” approach to all facets in quality of production within industry is examined.

MFGT 58
BENCHMARKING 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This survey course is for those interested in learning about Benchmarking as a strategic...
tool in manufacturing environment for continuous quality improvement. Topics will include a definition of Benchmarking, resources available to help in the manufacturing Benchmarking process, case studies and examples of companies that have used Benchmarking methods in production.

**MFGT 59**

**DESIGN OF EXPERIMENTS (DOE) 1.5 UNITS**

Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.

This survey course is designed for manufacturing individuals interested or actively involved in designing and conducting experiments. The course will help production and engineering personnel analyze a process and determine process variables that effect product characteristics. The development of efficient and economical test methods will cause reduction in variations of a product or process thus improving the production efficiency. Emphasis will be placed on Design of Experiments Fundamentals.

**MFGT 60**

**QUALITY ASSURANCE PRINCIPLES 1.5 UNITS**

Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.

This course is an overview of quality control systems, organizational structure, quality costs, vendor relations, acceptance sampling, and customer relations. Emphasis will be placed on the importance of adequate production requirements. (Formerly MFGT 69. 13/MFGT 10)

**MFGT 100**

**MANUFACTURING PROCESSES 3 UNITS**

Class hours: 3 lecture
Prerequisite: None.

This course provides information on modern manufacturing processes and operations including process materials currently used in industry. (Formerly IP 25/MFGT 5)

Transfer Credit: CSU

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**MATHEMATICS**

(Science/ Engineering/ Math Division)

(FOR ADDITIONAL COURSES SEE TECHNICAL MATHEMATICS)

**MATH 9T (Not degree applicable)**

**MATHEMATICS-TUTORIAL 0 UNIT**

Class hours: 2 lab
Prerequisite: Enrollment in any Mathematics course.

This course is designed to facilitate the learning of mathematical knowledge, skills, and concepts through individualized and mediated instruction. It is open to any student enrolled in any mathematics course. (Formerly MATH 99)

**MATH 20 (Not degree applicable)**

**BASIC MATHEMATICS 3 UNITS**

Class hours: 3 lecture
Prerequisite: None.

This course includes a review of the basic mathematics skills and fundamental operations as applied to whole numbers, common fractions, decimal fractions, percentage, and ratios. (Formerly MATH 50)

This class may be taken in Programmed Learning Sections. See your counselor for details.

**MATH 40 (Not degree applicable)**

**SURVEY OF MATHEMATICS 4 UNITS**

Class hours: 4 lecture
Prerequisite: MATH 20 or equivalent with a grade of Credit or “C” or higher.

This course is designed for students with a deficiency in high school algebra. Topics include: real numbers, polynomials, rational expressions, first-degree equations and inequalities, graphs of equations, linear systems of equations, exponents and radicals, and quadratic equations. (Formerly MATH 30)

**MATH 60**

**ELEMENTARY ALGEBRA 4 UNITS**

Class hours: 4 lecture
Prerequisite: MATH 40 or MATH 42 or equivalent with a grade of Credit or “C” or higher or satisfactory completion of the Math Placement Process.

This course is designed for students with a deficiency in high school algebra. Topics included are: real numbers, polynomials, rational expressions, first-degree equations and inequalities, graphs of equations, linear systems of equations, exponents and radicals, and quadratic equations. (Formerly MATH 30)

**MATH 70**

**PLANE GEOMETRY 4 UNITS**

Class hours: 4 lecture
Prerequisite: MATH 40 or equivalent with a grade of Credit or “C” or higher or satisfactory completion of the Math Placement Process.

This course covers topics in pre-algebra, informal geometry, and applied arithmetic including but not limited to percent, rates, scientific notation, tables, graphs, the real number line, an introduction to the Cartesian Coordinate system, problem solving techniques, signed numbers, simplifying and evaluating expressions and formulas, solving simple equations, numerical relationships involving lines, angles and polygons.

**MATH 42 (Not degree applicable)**

**FOUNDATIONS IN APPLIED MATHEMATICS 4 UNITS**

Class hours: 4 lecture/1 lab
Prerequisite: MATH 20 or equivalent with a grade of Credit or “C” or higher or satisfactory completion of the Math Placement Process.

Corequisite: None.
Recommendation: None.

This course explores the representation of functions and relations as graphs, formulas, and tables. The types of functions studied will include linear, quadratic, polynomial, rational, exponential, and logarithmic. These
functions will be used in solving a variety of equations, systems of equations and application problems. Other topics include the algebra of real and complex numbers, inequalities, and an introduction to conic sections. (This course is not open to students with credit in MATH 80A or MATH 80B) (Formerly MATH 23)

**MATH 80A**
**INTERMEDIATE ALGEBRA I** 3 UNITS
Class hours: 3 lecture
Prerequisite: MATH 60 or equivalent with a grade of Credit or “C” or higher. Students who have not taken MATH 60 must attain a satisfactory score on the Intermediate Algebra Readiness Test. This course is the first half of Intermediate Algebra. Topics include: the real number system, linear and quadratic equations, inequalities, exponents and polynomials, rational expressions, radical exponents and radicals, and graphing linear equations. (Formerly MATH 23.1)

**MATH 80B**
**INTERMEDIATE ALGEBRA II** 3 UNITS
Class hours: 3 lecture
Prerequisite: MATH 80A or equivalent with a grade of Credit or “C” or higher. This course is the second half of Intermediate Algebra. Topics include: systems of equations, relations and functions, exponential and logarithmic functions, conic sections, and sequences and series. (Formerly MATH 23.2)

**MATH 100**
**LIBERAL ARTS MATHEMATICS** 3 UNITS
Class hours: 3 lecture
Prerequisite: MATH 80 (or MATH 80B) and MATH 70 or equivalent with grades of Credit or “C” or higher. This is a nontechnical course surveying a variety of concepts in mathematics. Topics will include: elementary logic, algebra of sets, rational and real numbers, informal geometry, elementary combinatorics and probability, and elementary statistics. It is not open to student with credit in any transfer level math course. (Formerly MATH 10) Transfer Credit: CSU; UC

**MATH 101**
**PRECALCULUS MATHEMATICS** 4 UNITS
Class hours: 4 lecture
Prerequisite: MATH 140 or equivalent with a grade of Credit or “C” or higher. Entering students must attain a satisfactory score on the Calculus Readiness Test. This course is a critical study of the algebra of real and complex numbers which includes selected topics such as the number system, inequalities, and the binomial theorem, sets, matrices, sequences and series. Exponential, logarithmic, polynomial, and inverse functions are included. (Formerly MATH 5.1) Transfer Credit: CSU; UC

**MATH 102**
(CAN MATH SEQ B & C) (CAN MATH 18)
**ANALYTIC GEOMETRY AND CALCULUS I** 4 UNITS
Class hours: 4 lecture
Prerequisite: MATH 101 or equivalent with a grade of Credit or “C” or higher. Students who have not taken MATH 101 must attain a satisfactory score on the Calculus Readiness Test. This course is the first semester of calculus, designed to meet lower division university and four-year college requirements. Topics include are differentiation and integration of algebraic, and trigonometric functions with applications. The necessary topics of analytic geometry are presented as needed to proceed with the principles of calculus. (Formerly MATH 5.2) Transfer Credit: CSU; UC

**MATH 103**
(CAN MATH SEQ B & C) (CAN MATH 20)
**ANALYTIC GEOMETRY AND CALCULUS II** 4 UNITS
Class hours: 4 lecture
Prerequisite: MATH 102 or equivalent with a grade of Credit or “C” or higher. This course is a continuation of Math 102. Topics include analytic geometry of the plane, differentiation and integration of trigonometric, logarithmic, and exponential functions, techniques of integration with applications, sequences, series, and improper integrals. (Formerly MATH 5.3) Transfer Credit: CSU; UC

**MATH 110A**
**MATHEMATICS FOR ELEMENTARY TEACHERS** 3 UNITS
Class hours: 3 lecture
Prerequisite: MATH 10 (or MATH 80B) and MATH 70 or equivalent with grades of Credit or “C” or higher. This course includes introduction to logic, symbols, sentences and sets, real number structure including natural numbers, integers, rationals and irrationals; basic operations on the real numbers with basic laws and axioms; the division algorithm, prime factorization theorem and applications; operations with fractional and decimal notation; order of operations; systems of numeration including binary and decimal. It meets elementary education credential requirement. It is not open for credit to math majors. (Formerly MATH 6/MATH 6.1) Transfer Credit: CSU; UC

**MATH 110B**
**MATHEMATICS FOR ELEMENTARY TEACHERS** 3 UNITS
Class hours: 3 lecture
Prerequisite: MATH 110A or equivalent with a grade of Credit or “C” or higher. This course includes elements of logic and the basic concepts of informal geometry. The course is designed to develop measurement and geometric concepts of two and three dimensional spaces. It meets elementary education credential requirements. It is not open for credit to math majors. (Formerly MATH 6.2) Transfer Credit: CSU, UC

**MATH 112**
(CAN STAT 2)
**ELEMENTARY STATISTICS** 4 UNITS
Class hours: 4 lecture
Prerequisite: MATH 80 or MATH 80B or equivalent with a grade of Credit or “C” or higher or satisfactory completion of the Math Placement Process. This course provides an introduction to descriptive and inferential statistics. Topics included are mean, standard deviation, variance, probability, random variables, binomial probability distribution, normal probability distribution, central limit theorem, testing hypotheses, confidence intervals, t-distribution, chi-square distribution, F-distribution, linear regression, and linear correlation. This course is a beginning statistics course designed for all majors. A graphing calculator is required. (Formerly MATH 12) Transfer Credit: CSU; UC

**MATH 114**
**COLLEGE ALGEBRA** 4 UNITS
Class hours: 4 lecture
Prerequisite: MATH 80 or MATH 80B or equivalent with a grade of Credit or “C” or higher. This course is designed for students majoring in life or social sciences. The main topics to be covered include linear and quadratic equations and inequalities, polynomial, rational, exponential, and logarithmic functions and their graphs, systems of linear equations, matrices, sequences and series, combinatorics, and the Binomial Theorem. (Formerly MATH 17) Transfer Credit: CSU; UC
MATH 115 (CAN MATH 12)  
FINITE MATHEMATICS  4 UNITS  
Class hours: 4 lecture  
Prerequisite: MATH 80 or MATH 80B or equivalent with a grade of Credit or “C” or higher. Students who have not taken MATH 80 or MATH 80B must attain a satisfactory score on the Advanced Math Readiness Test. 
This course includes sets, matrices, system of equations and inequalities, linear programming, permutations and combinations probability and topics from statistics. Applications of various topics from business, social and behavioral sciences are included. 
(Formerly MATH 15) 
Transfer Credit: CSU; UC  

MATH 116 (CAN MATH 34)  
CALCULUS FOR MANAGERIAL, BIOLOGICAL AND SOCIAL SCIENCES  4 UNITS  
Class hours: 4 lecture  
Prerequisite: MATH 80 or MATH 80B or equivalent with a grade of Credit or “C” or higher. Students who have not taken MATH 80 or MATH 80B must attain a satisfactory score on the Advanced Math Readiness Test. 
This course is a survey of calculus designed to meet lower division university and four year college requirements for the management, biology or social science major student. Topics included are differentiation and integration of algebraic, logarithmic and exponential functions of single and multi-variables, related rates, areas, and curve sketching. This course is open to students with credit in Mathematics 102. The class does not meet the prerequisite for Mathematics 103. (Formerly MATH 16) 
Transfer Credit: CSU; UC  

MATH 140 (CAN MATH 8)  
TRIGONOMETRY  3 UNITS  
Class hours: 3 lecture  
Prerequisite: MATH 80 (or MATH 80B) and MATH 70 or equivalent with grades of Credit or “C” or higher. Students who have not taken MATH 80 or MATH 80B must attain a satisfactory score on the Advanced Math Readiness Test. 
This course includes circular functions, inverses, graphs, angles and trigonometric functions, solutions of right and oblique triangles, identities, solution of equations, and complex numbers. (Formerly MATH 21) 
This class may be taken in Programmed Learning Sections. See your counselor for details. 
Transfer Credit: CSU  

MATH 150A  
COMPUTER APPLICATIONS FOR PRECALCULUS  1 UNIT  
Class hours: 3 lab  
Prerequisite: MATH 101 or equivalent with a grade of Credit or “C” or higher, or concurrent enrollment. 
Corequisite: None. 
Recommendation: None. 
This course is an introduction to modern mathematical software commonly used in universities and industry. The topics will be specifically selected to enhance and augment MATH 101. Precalculus Mathematics course using the powerful numeric, symbolic, and graphical capabilities of the mathematical software and will better prepare students for calculus. 
(Formerly MATH 75.1) 
Transfer Credit: CSU  

MATH 170A  
COMPUTER APPLICATIONS FOR CALCULUS I  1 UNIT  
Class hours: 3 lab  
Prerequisite: MATH 102 or equivalent with a grade of Credit or “C” or higher or concurrent enrollment. 
Corequisite: None. 
Recommendation: None. 
This course is an introduction to modern mathematical software as used in most universities and in industrial applications where scientific research is commonplace. The topics will be specifically selected to enhance Calculus I using the powerful numeric, symbolic and graphical capabilities of mathematical software that is currently available. 
(Formerly MATH 75.2) 
Transfer Credit: CSU  

MATH 190A  
COMPUTER APPLICATIONS FOR CALCULUS II  1 UNIT  
Class hours: 3 lab  
Prerequisite: MATH 103 or equivalent with a grade of Credit or “C” or higher, or concurrent enrollment. 
Corequisite: None. 
Recommendation: None. 
This course is an introduction to modern mathematical software commonly used in universities and industry. The topics will be specifically selected to enhance Calculus II using the powerful numeric, symbolic, and graphical capabilities of the mathematical software. 
(Formerly MATH 75.3) 
Transfer Credit: CSU  

MATH 220  
(CAN MATH SEQ C)(CAN MATH 22)  
ANALYTIC GEOMETRY AND CALCULUS III  4 UNITS  
Class hours: 4 lecture  
Prerequisite: MATH 103 or equivalent with a grade of Credit or “C” or higher. 
This course is a continuation of MATH 103. Topics include vectors and vector calculus, solid analytic geometry, functions of two or more variables, partial derivatives and multiple integration. 
(Formerly MATH 5.4) 
Transfer Credit: CSU; UC  

MATH 240  
CALCULUS AND DIFFERENTIAL EQUATIONS  4 UNITS  
Class hours: 4 lecture 
Prerequisite: MATH 103 or equivalent with a grade of Credit or “C” or higher. 
Recommendation: MATH 220 or equivalent with a grade of Credit or “C” or higher. 
Topics in the course are standard methods of solving ordinary linear differential equations with applications. Laplace transforms including techniques of solving differential equations with Laplace transforms, matrices, and determinants including solving systems of linear equations with the Gauss elimination technique and Cramer’s Rule. This course is designed for engineering majors. 
(Formerly MATH 5.5) 
Transfer Credit: CSU; UC  

MEDICAL ASSISTANT  
(Health Occupations Division)  
MA 60  
INTRODUCTION TO MEDICAL ASSISTING  2 UNITS  
Class hours: 2 lecture  
Prerequisite: None. 
This is an introductory course to study the history of medicine and paramedical professions. Generalized and specialized careers in medical assisting, personal and professional responsibilities, medical ethics and law, communications and records are discussed. The focus is on front office responsibilities, customer service philosophy, and basic communication skills. 
(Formerly MA 40)
### MA 62
**MEDICAL INSURANCE AND LIABILITY**  
Class hours: 3 lecture.  
Prerequisite: None.  
Recommendation: MA 161 or equivalent with a grade of Credit or “C” or higher.  
This course presents principles of insurance, general health and accident insurance programs and billing procedures, government medical care programs with specialized billing procedures, role of the insurance officer, and aspects of related medical professional liability. (Formerly MA 42)

### MA 64
**MEDICAL OFFICE ASSISTING**  
Class hours: 2 lecture/3 lab  
Prerequisite: None.  
This course includes instruction in developing skills and techniques in the assisting of physical examinations, naming, care and setting-up of instruments, sterilization, and operating room procedures. (Formerly MA 44)

### MA 66
**MEDICATIONS AND SPECIALTIES**  
Class hours: 2 lecture/3 lab  
Prerequisite: None.  
This course prepares the student to prepare and administer medications, maintain narcotic control records, and assist the specialist with examinations. This course meets the requirements as set forth in the laws relating to the utilization of medical assistants within the Medical Practice Act. (Formerly MA 46)

### MA 67
**MEDICAL OFFICE ADMINISTRATION**  
Class hours: 3 lecture  
Prerequisite: MA 60, BASS 62, and BASS 3T, or equivalents with grades of Credit or “C” or higher.  
This course is designed to develop skills in administrative procedures in the medical office. Topics include telecommunications; bookkeeping, billing and collections; payroll; policy and procedure development; medical records; verbal and written communication for the medical office; and additional office management techniques. (Formerly MA 47)

### MA 68
**MEDICAL ASSISTING INTERNSHIP EXPERIENCE**  
Class hours: 1 lecture/180 variable semester hours  
Prerequisite: MA 60, 62, 64, 161, HO 53, 54 and HO 55 or equivalent with grades of Credit or “C” or higher. Valid certification for cardiopulmonary resuscitation and American Red Cross first aid training (9 hour course).  
Corequisite: MA 66 or prior completion with a grade of Credit or “C” or higher.  
This course is designed to provide opportunities for the student to intern a medical facility while receiving supervised instruction in direct patient care. (Formerly MA 48)

### MA 73/74
**MEDICAL ASSISTANT OCCUPATIONAL WORK EXPERIENCE**  
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Medical Assistant work experience 73 or 20 hours of employment per week for Medical Assistant work experience 74. The employment must be in a job related to the student’s educational goal.  
Prerequisite: None.  
Corequisite: (1) Enrollment in the Medical Assistant vocational program with 7 or more units including occupational work experience. Occupational Work Experience is a supervised employment program in an approved work station related to the student's declared major. Students meet with their instructor for a minimum of one hour per week and will receive credit for on-the-job learning experiences that are new or are an expansion of their regular responsibilities. This course may be repeated for a maximum of 8 units based on the number of hours on the job.

### MA 161
**MEDICAL TERMINOLOGY**  
Class hours: 3 lecture  
Prerequisite: None.  
This course will prepare the student in the correct use of medical terms, abbreviations, phraseology, and the understanding of word parts. It will include analyzing the terms by written and oral communication of the various systems of the body. (Formerly MA 41)  
Transfer Credit: CSU

### MET 50
**NONFERROUS HEAT TREAT**  
Class hours: 1 lecture/3 lab  
Prerequisite: None.  
Recommendation: MET 100A or equivalent with a grade of Credit or “C” or higher.  
This course will cover the effects of heat treating related to the mechanical and physical properties of non-ferrous metals. Techniques, processes and equipment used in the industrial heat treating facility; relationship of metallic phases and precipitation hardening will be emphasized. In addition theory and application of thermocouples in pyrometry, photomicrography and photomacrography of the effects of heat treatment on microstructures are included. (Formerly MET 42.2/MET 42)

### MET 50A
**HEAT TREATING FERROUS MATERIALS**  
Class hours: 3 lecture  
Prerequisite: MET 100A or equivalent with a grade of Credit or “C” or higher.  
Corequisite: None.  
Recommendation: None.  
This course will include select heat treat specifications for the processing of ferrous materials to meet ARP 1962 requirements for heat treating. The course will cover the following: MIL-Q9895, MIL-Std 1535, MIL-H-6875, AMS 2759, MIL-S-6090, and MIL-Std 12515. (Formerly MET 42.3)

### MET 51
**WELDING METALLURGY**  
Class hours: 4 lecture  
Prerequisite: None.  
Corequisite: None.  
Recommendation: WELD 100 or equivalent or employment in the metal joining industries.  
This course is an introduction to the study of metals with an emphasis on the effects of welding on metals. The course is applicable for those students seeking a career in welding inspection. The structure of matter, chemical, physical, and mechanical properties of metals, principles of alloying, solid state diffusion, plastic deformation, and heat treatment will be studied. The course will include demonstrations and exercises in the use of metallurgical testing equipment and tools found in the industry. (Formerly MET 48)
MET 52L
METALLURGY SPECIALTY LAB  0.5 UNITS
Class hours: 3 lab (9 weeks)
Prerequisite: Concurrent enrollment in or completion of MET 100A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is a lab course to complement other courses in the metallurgy curriculum. It is designed to give the student practical laboratory experience in working with ferrous and nonferrous metals. This course may be taken for a maximum of 2 units. (Formerly MET 22)

LABORATORY PROCEDURES  1 UNIT
Class hours: 2 lecture/2 lab (9 weeks)
Prerequisite: MET 100A or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course will provide instruction in the elements of laboratory procedures of metals. Instruction will include the laboratory procedures used to determine the interpretable concepts of the quality and properties of metals and their alloys, with emphasis placed on the proper use and care of laboratory equipment, hardness testers, abrasive cut-off wheels, mounting presses, tensile testers and polishing equipment used in industry. (Formerly MET 31)

MET 53
FERROUS METALLURGY  3 UNITS
Class hours: 2.5 lecture/1.5 lab
Prerequisite: MET 100 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This is the study of the entire spectrum of steel and alloy steels. Theory and application in the fields of automotive, construction, aircraft metals, manufacturing and their processes will be covered. In addition, high temperature, heat resistant, corrosion resisting, stainless steel, specialty steels and tool steel will be discussed. The course will also cover testing methods such as metallurgical processing affecting microstructure, physical and mechanical properties including selection of steel types for specific applications, toughness, hardness, strength and heat treatment.

MET 54
NONFERROUS METALLURGY  3 UNITS
Class hours: 2.5 lecture/1.5 lab
Prerequisite: MET 100A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is the study of nonferrous metals and alloys. Theory and applications in the field of automotive, corrosion, manufacturing and aircraft metals and their processes will be covered. Materials covered will include titanium, aluminum, brass, bronze, copper, zinc, tin, lead, magnesium, tantalum, tungsten, niobium, molybdenum, platinum, gold and silver. Emphasis will be placed on the study of properties, fabrication, testing, castings, forgings, powder metals and the unique applications of each material. The metallurgical characteristics and selection of nonferrous types for specific applications will be emphasized. (Formerly MET 22)

MET 55
METALLURGY OCCUPATIONAL WORK EXPERIENCE  3-4 UNITS
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Metallurgy work experience 73 or 20 hours of employment per week for Metallurgy work experience 74. The employment must be in a job related to the student's educational goal.
Corequisite: (1) Enrollment in the Metallurgy vocational program with 7 or more units including occupational work experience.

MET 100A
METALLURGY I  3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: None.
This course is an introduction to the study of metals and non-metals; structure of matter; chemical, physical and mechanical properties of metals and alloys; and non-metals including polymers, ceramics and composite materials. Principles of alloying, solid state allotropy, plastic deformation and heat treatment will also be studied. This course will also include demonstrations and laboratory practice in the use of metallurgical testing equipment commonly used in industry. (Formerly MET 10)
Transfer Credit: CSU

MET 120
NON-DESTRUCTIVE TESTING  3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: None.
This is a survey course designed to familiarize the student with nondestructive testing theory and applications. The major emphasis is on the "basic five" nondestructive testing methods: liquid penetrant, magnetic particle, radiographic, ultrasonic, and eddy current. Students will learn to use these methods and to evaluate available NDT methods as they apply to quality control. (Formerly MET 38)
Transfer Credit: CSU
MET 130A
HEAT TREATMENT OF IRON AND STEEL  2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: MET 100A or equivalent with a grade of Credit or “C” or higher.
Effects of heat treating on mechanical and physical properties of ferrous metals will be covered. Techniques, processes and equipment used in the industrial heat treating facility are included in this course. Processes and effects of specialized surface treatments, theory and application of thermocouples in pyrometry, photomicrography and photomacrography of the effects of heat treatment on microstructures are all part of lecture and lab assignments. (Formerly MET 42/MET 42.1).
Transfer Credit: CSU

MICROBIOLOGY
(Science/Engineering/Math Division)

MICR 200  (CAN BIOL 14)
PRINCIPLES AND APPLICATIONS OF MICROBIOLOGY  5 UNITS
Class hours: 3 lecture/6 lab
Prerequisite: CHEM 100 or BIOL 120 or ZOOL 120 or equivalents with grades of Credit or “C” or higher.
Through lecture and laboratory exercises, this course provides an introduction to the microbial world. Emphasis is on microbial structure, microbial genetics, host-microbe interactions, the immune response, and disease control/prevention. Current issues in acquired immuno deficiency syndrome research and recombinant deoxyribonucleic acid technology are discussed. Laboratory exercises will emphasize microbial morphology and identification through microscopic observation and biochemical testing. This course satisfies the requirements of majors in two and four-year nursing programs, dental hygiene, and is recommended for pre-professional biology majors. (Formerly MICR 1)
Transfer Credit: CSU; UC

MULTIMEDIA

SEE ART
(Art and Design)

MUSIC
(Fine Arts/Communications Division)

HISTORY AND APPRECIATION

MUS 1L  (Not degree applicable)
MUSIC LABORATORY  0 UNIT
Class hours: 1 lab arranged.
Corequisite: Enrollment in any music class.
This course is an open entry and open exit laboratory designed for students taking any music course. Students will have access to listening stations (compact disk and tape recorders), TAPMaster rhythm machines, synthesizer lab, and computer for aural skills, visual recognition of music, and musical vocabulary. May be repeated. (Formerly MUS 9)
Transfer Credit: CSU

MUS 100
MUSIC APPRECIATION  3 UNITS
Class hours: 3 lecture, plus 1 hour lab arranged.
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an introductory survey of Western Art music from the Middle Ages to the present. Emphasis is on the historical, aesthetic, and cultural contexts from which music arises. (Formerly MUS 7)
Transfer Credit: CSU; UC

MUS 102
LATINO MUSIC  3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course offers students a historical and philosophical survey of Latino music. Musical expression will be discussed in terms of folk/ethnic, popular and classical art forms. The cross-hybridization of musical styles will be addressed with respect to musical forms from Mexico, Cuba, Puerto Rico, and the Dominican Republic. The state of music among Latino populations in the United States also will be included. (Formerly MUS 97.1/MUS 3)
Transfer Credit: CSU

MUS 103
JAZZ IN AMERICA  3 UNITS
Class hours: 3 lecture, plus 1 hour lab arranged.
Prerequisite: None.
This course is an introduction to jazz, its historical background and its development in the United States. (Formerly MUS 4)
Transfer Credit: CSU; UC

MUS 104
AMERICAN POPULAR MUSIC  3 UNITS
Class hours: 3 lecture, plus 1 hour lab arranged.
Prerequisite: None.
This course is a survey of the history and characteristics of the music developed in or for general American culture and various subcultures from the Revolutionary Period to the present. It includes folk music, blues, Swing-era music, rock n’ roll, and rock. (Formerly MUS 5)
Transfer Credit: CSU; UC

MUS 104B
HISTORY OF ROCK MUSIC  3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to rock and its influence on American popular music. The students will learn how to actively engage with music by relating rock to other styles of music, relating music to text, and relating rock to its cultural context.
Transfer Credit: CSU

MUS 105
MUSIC FUNDAMENTALS  3 UNITS
Class hours: 3 lecture, plus 1 hour lab arranged.
Prerequisite: None.
This course provides the fundamentals of notation, meter, rhythm, intervals, and key signatures, so that the student can gain a sensitivity to, and understanding of, music past, present, and future. (Formerly MUS 10)
Transfer Credit: CSU; UC

MUS 106
MUSIC FUNDAMENTALS  3 UNITS
Class hours: 3 lecture, plus 1 hour lab arranged.
Prerequisite: None.
This course provides the fundamentals of notation, meter, rhythm, intervals, and key signatures, so that the student can gain a sensitivity to, and understanding of, music past, present, and future. (Formerly MUS 10)
Transfer Credit: CSU; UC

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
MUS 106  (CAN MUS 2)  
MUSIC THEORY/ 
MUSICIANSHIP I  5 UNITS  
Class hours: 5 lecture, plus 2 hours lab arranged  
Prerequisite: MUS 105 or equivalent with a grade of Credit or “C” or higher.  
Corequisite: None.  
This is a basic course in music theory and musicianship. Orientation is given in the basic elements of major and minor harmony, intervals, keys, triads, voice-leading, non-harmonic tones, and seventh chords. Sight-singing, ear-training, keyboard harmony, melodic dictation, computer music software, computer literacy for musicians, and notation software will also be studied. (Formerly MUS 11)  
Transfer Credit: CSU; UC

MUS 107  (CAN MUS 4)  
MUSIC THEORY/  
MUSICIANSHIP II  5 UNITS  
Class hours: 5 lecture, plus 2 hour lab arranged  
Prerequisite: MUS 106 or equivalent with a grade of Credit or “C” or higher.  
Corequisite: None.  
This is a course in music theory and musicianship dealing with Baroque and Classical harmony. Orientation is given in advanced four-part chorale writing, primary and secondary triads, modulation, inversion, dominant 7ths, and non-dominant seventh chords. Other topics to be covered are advanced keyboard harmony and dictation, advanced chromatic scale degrees, and chordal dictation involving secondary dominants. There will be the continuing study and usage of music software, rhythm machines, and computer-based notation programs. (Formerly MUS 12)  
Transfer Credit: CSU; UC

MUS 108  
MUSIC THEORY/ 
MUSICIANSHIP III  5 UNITS  
Class hours: 5 lecture, plus 2 hour lab arranged  
Prerequisite: MUS 107 or equivalent with a grade of Credit or “C” or higher.  
Corequisite: None.  
This is a course in music theory and musicianship dealing with Classical and Romantic harmony. Attention is given in advanced four-part chorale writing, piano style writing, secondary triads, advanced modulation, inversion, dominant 7ths, non-dominant seventh chords, ninth chords, eleventh chords, and thirteenth chords. Other topics to be covered are advanced keyboard harmony and dictation, advanced chromatic scale degrees, and chordal dictation involving secondary dominants. There will be the continuing study and usage of music software, rhythm machines, and computer-based notation programs. (Formerly MUS 14)  
Transfer Credit: CSU; UC

MUS 110  
MUSIC THEORY/ 
MUSICIANSHIP IV  5 UNITS  
Class hours: 5 lecture, plus 2 hour lab arranged  
Prerequisite: MUS 108 or equivalent with a grade of Credit or “C” or higher.  
Corequisite: None.  
This is a course in music theory and musicianship dealing with Romantic and 20th century harmony. Orientation is given in piano style writing, all chromatically altered chords, advanced modulation, inversion, non-dominant seventh chords, half and fully diminished 7th chords, whole tone harmony, and elements of late Romanticism, Impressionism and the 20th century. Other topics to be covered are advanced keyboard harmony and dictation, advanced sight-singing, advanced chordal identification, diatonic and chromatic scale degrees, and chordal dictation involving secondary dominants and chromaticism. There will be the continuing study and usage of music software, rhythm machines, and computer-based notation programs. (Formerly MUS 14)  
Transfer Credit: CSU; UC

MUS 111  
MUSIC NOTATION AND COPYING  1 UNIT  
Class hours: 1 lecture/2 lab  
Prerequisite: None.  
This course provides instruction and practical experience in the basic techniques of music notation, the making of notes, rests, symbols, and characters found in music manuscripts. It also includes the use and care of tools and equipment. (Formerly MUS 25)  
Transfer Credit: CSU

MUS 144  
ELECTRONIC SYNTHESIZER I  2 UNITS  
Class hours: 2 lecture/2 lab  
Prerequisite: None.  
This class is an introduction to MIDI, synthesizer programming, sampling, computer sequencing, drum machine technique, and computer composition. Also, the course introduces the basics of acoustics and the physical properties of sound. Compositions will be required of all students. Individual studio time is provided. This course may be taken for a maximum of 4 units. (Formerly MUS 22)  
Transfer Credit: CSU

MUS 145  
ELECTRONIC SYNTHESIZER II  1 UNIT  
Class hours: 1 lecture/2 lab, plus 4 hours arranged  
Prerequisite: MUS 144 or equivalent with a grade of Credit or “C” or higher.  
This course is a continuation of tape studio practices, digital recording, synthesizer performance, and computer based recording and processing. This course may be taken for a maximum of 2 units. (Formerly MUS 23)  
Transfer Credit: CSU

MUS 146  
RECORDING TECHNIQUES  2 UNITS  
Class hours: 1 lecture/3 lab  
Prerequisite: None.  
Recommendation: MUS 105 or equivalent with a grade of Credit or “C” or higher.  
This course introduces the student to the methods of audio recording for the performing arts. It includes the technical, as well as the artistic, aspects of recording. Emphasis will be placed on the practical use of audio equipment both in a studio situation and on location. This course may be taken for a maximum of 8 units. (Formerly MUS 24)  
Transfer Credit: CSU

APPLIED MUSIC

MUS 2  (Not degree applicable)  
COMMERCIAL MUSIC ORIENTATION  1 UNIT  
Class hours: 1 lecture/2 lab  
Prerequisite: None.  
This course provides preparation for professional and semi-professional work as a commercial musician. It includes preparation for auditions, techniques in securing employment, basic knowledge required for practicing musicians, conduct and deportment on the job, how to improve one’s skills and correcting weaknesses in an individual’s qualifications as a practicing professional or semi-professional. (Formerly MUS 48)

MUS 112  (CAN MUS 22)  
ELEMENTARY PIANO I  2.5 UNITS  
Class hours: 2 lecture/1 lab plus 1 hr. lab arr.  
Prerequisite: None.  
This course focuses on basic study technique, which will include reading, writing, listening and playing. A variety of elementary piano repertoire will be studied. Students learn to play elementary piano repertoire. (Formerly MUS 112)
understand, experience and appreciate the fundamentals of keyboard musicianship. This course is designed for students with little or no background in piano playing. This course may be taken for a maximum of 5 units. (Formerly MUS 60)
Transfer Credit: CSU; UC
MUS 113  
(CAN MUS 24)
ELEMENTARY PIANO II  2.5 UNITS  
Class hours: 2 lecture/1 lab plus 1 hr. lab arr.  
Prerequisite: MUS 112 or equivalent with a grade of Credit or “C” or higher.  
This course focuses on the continuation of basic piano, which will include reading, writing, listening and playing. A variety of piano repertoire will be studied. Further emphasis will be on understanding, experiencing and appreciating the fundamentals of keyboard musicianship. This course may be taken for a maximum of 5 units. (Formerly MUS 61)
Transfer Credit: CSU; UC

MUS 114  
INTERMEDIATE PIANO I  2.5 UNITS  
Class hours: 2 lecture/1 lab plus 1 hr. lab arr.  
Prerequisite: MUS 113 or equivalent with a grade of Credit or “C” or higher.  
This course is a continuation of piano study at the intermediate level. A variety of assigned piano repertoire will be studied. Emphasis will be on understanding, experiencing and appreciating more advanced aspects of keyboard musicianship. This course may be taken for a maximum of 5 units. (Formerly MUS 62)
Transfer Credit: CSU; UC

MUS 115  
INTERMEDIATE PIANO II  2.5 UNITS  
Class hours: 2 lecture/1 lab plus 1 hr. lab arr.  
Prerequisite: MUS 114 or equivalent with a grade of Credit or “C” or higher.  
This course is a continuation of piano study that occurred in MUS 114. A variety of assigned piano repertoire at the intermediate to advanced level will be studied. This course may be taken for a maximum of 5 units.
Transfer Credit: CSU; UC

MUS 116  
VOICE I  2.5 UNITS  
Class hours: 2 lecture/1 lab plus 1 hr. lab arr.  
Prerequisite: None.  
This course focuses on basic vocal techniques including breath management, posture, phonation, resonance, and diction. A variety of elementary vocal repertoire is introduced from different musical styles: folk, classical, musical theater, and popular songs. Students learn to use the unamplified voice to its best advantage and to interpret and perform songs suited to their individual ability. A concentration on musicianship is emphasized using ear-training techniques. This course may be taken for a maximum of 5 units. (Formerly MUS 43)
Transfer Credit: CSU; UC

MUS 117  
VOICE II  2.5 UNITS  
Class hours: 2 lecture/1 lab plus 1 hr. lab arr.  
Prerequisite: MUS 116 or equivalent with a grade of Credit or “C” or higher.  
This course focuses on a continuation of vocal techniques including breath management, posture, phonation, resonance, and diction. A variety of intermediate vocal repertoire will be introduced from different musical styles: folk, classical, musical theater, and popular songs. Student learn to use the unamplified voice to its best advantage and to interpret and perform songs suited to their individual ability. A concentration on musicianship is emphasized using ear-training techniques. This course may be taken for a maximum of 5 units. (Formerly MUS 41)
Transfer Credit: CSU; UC

MUS 118  
VOICE III  2.5 UNITS  
Class hours: 2 lecture/1 lab plus 1 hr. lab arr.  
Prerequisite: MUS 117 or equivalent with a grade of Credit or “C” or higher.  
This course emphasizes the technical foundations of singing learned in Voice I and II. The song literature is more advanced and requires an understanding of a broad range of styles as previously discussed in the earlier courses. Ear training and musicianship require specific reading and identification skills. Stylistic interpretation is focused on, as well as performance techniques. Greater involvement with microphone and recording techniques will be encouraged. This course may be taken for a maximum of 5 units. (Formerly MUS 40)
Transfer Credit: CSU; UC

MUS 119  
VOICE IV  2.5 UNITS  
Class hours: 2 lecture/1 lab plus 1 hr. lab arr.  
Prerequisite: MUS 118 or equivalent with a grade of Credit or “C” or higher.  
The course continues the study of diction, style, technique, musicianship, and interpretation that occurred in Voice III. Acting with emphasis on stage movement, characterization, and improvisational techniques are explored in greater detail. Singers will be required to perform solos, duets, and in scenes. Popular styles are required to collaborate with recording studio to create projects. This course may be taken for a maximum of 5 units. (Formerly MUS 43)
Transfer Credit: CSU; UC

MUS 120  
ELEMENTARY GUITAR I  2.5 UNITS  
Class hours: 2 lecture/1 lab plus 1 hr. lab arr.  
Prerequisite: None.  
This course provides basic instruction in classical and other styles of guitar playing at beginning level. It includes appropriate exercises to develop technical facility, material for sight reading, study of basic chords, and repertoire. The student must provide an acoustic guitar for his/her own use in the class. This course may be taken for a maximum of 5 units. (Formerly MUS 65)
Transfer Credit: CSU; UC

MUS 121  
ELEMENTARY GUITAR II  2.5 UNITS  
Class hours: 2 lecture/1 lab plus 1 hr. lab arr.  
Prerequisite: MUS 120 or equivalent with a grade of Credit or “C” or higher.  
This class refines guitar playing techniques used in elementary classical, flamenco, and other pieces. Elements of improvisation, harmonization, and playing in upper positions are included. This course may be taken for a maximum of 5 units. (Formerly MUS 66)
Transfer Credit: CSU; UC

MUS 122  
INTERMEDIATE GUITAR I  2.5 UNITS  
Class hours: 2 lecture/1 lab plus 1 hr. lab arr.  
Prerequisite: MUS 121 or equivalent with a grade of Credit or “C” or higher.  
This class includes instruction in scales, chords, and arpeggios in all keys and positions. Included are intermediate levels of improvisation, accompanying, sightreading, transposition, and the performance of folk, classical, and Flamenco styles. This course may be taken for a maximum of 5 units. (Formerly MUS 67)
Transfer Credit: CSU; UC

MUS 123  
INTERMEDIATE GUITAR II  2.5 UNITS  
Class hours: 2 lecture/1 lab plus 1 hr. lab arr.  
Prerequisite: MUS 122 or equivalent with a grade of Credit or “C” or higher.  
This class covers the mastery of the entire guitar fingerboard, a study of intermediate and advanced music in several styles, and the principles of improvisation and transposition. This course may be taken for a maximum of 5 units. (Formerly MUS 68)
Transfer Credit: CSU; UC

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
MUS 135
THE BUSINESS OF MUSIC 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course focuses on the music business as it relates to the marketplace and job opportunities. It teaches the student about the important jobs in the industry and their duties and responsibilities. Topics include the process of promotion, publicity, management, touring, recording, contracts, accounting, artist relations and development, marketing, advertising, copyrights, and related music fields. (Formerly MUS 35)
Transfer Credit: CSU; UC

MUS 142
JAZZ IMPROVISATION 1 UNIT
Class hours: 1 lecture/2 lab
Prerequisite: None.
Recommendation: Audition.
This course in basic techniques in improvisation begins with simple question-and-answer phrases and progresses to extended solos. It covers detailed and applied knowledge of chord progressions and stresses harmonic forms employed in all phases of jazz. Emphasis will be on the blues, 32-bar standards, and jazz pieces. Included are performance, analysis, listening, written improvisations, playing with records, and transcribed solo study. This course may be taken for a maximum of 4 units. (Formerly MUS 47)
Transfer Credit: CSU; UC

MUS 143
THE JAZZ AND POPULAR SINGER 3 UNITS
Class hours: 3 lecture
Prerequisite: Audition.
Corequisite: None.
Recommendation: None.
This course focuses on the study of jazz and popular singing styles with emphasis on historical elements, stylistic concepts, theoretical practices, performance procedures, and its function within the music industry. Topics include harmony and ear training for jazz and popular singers, historical analysis of significant singers of this genre, small vocal group jazz ensemble, studio recording techniques, improvisation, solo stylistization, ensemble sound concepts, and the study of popular literature. This course may be taken for a maximum of 12 units. (Formerly MUS 36)
Transfer Credit: CSU

MUS 147
BASIC APPLIED MUSIC 1 UNIT
Class hours: 1 lecture plus 6 hours arranged
Prerequisite: None.
Corequisite: Enrollment in a music-performance course related to the student's private study: MUS 124, 125, 126, 127, 129, 132, 133, 134, 138, 139, 140, or 142.
This course offers applied instruction in voice, piano, traditional band or orchestral instrument with an assigned instructor on the applied music staff. Emphasis is placed on technique and repertoire representative of various periods and composers. It includes one hour per week recital attendance and one half hour individual lesson per week. Performance for a faculty jury will be required at the end of the semester. This course may be taken for a maximum of 2 units. (Formerly MUS 30)
Transfer Credit: CSU; UC

MUS 148
PRIVATE STUDY/RECITAL I 1 UNIT
Class hours: 1 lecture plus 6 hours arranged
Prerequisite: None.
Corequisite: Enrollment in a music-performance course related to the student's private study: MUS 124, 125, 126, 127, 132, 133, 134, 138, 139, 140, or 142.
This course offers applied instruction in voice, piano, traditional band or orchestral instrument with an assigned instructor on the applied music staff. Emphasis is placed on technique and repertoire representative of various periods and composers includes one hour per week recital attendance and one half hour individual lesson per week. Performance for a faculty jury will be required at the end of the semester. This course may be taken for a maximum of 2 units. (Formerly MUS 33)
Transfer Credit: CSU; UC

MUS 150
PRIVATE STUDY/RECITAL III 1 UNIT
Class hours: 1 lecture plus 6 hours arranged
Prerequisite: None.
Corequisite: Enrollment in a music-performance course related to the student's private study: MUS 124, 125, 126, 127, 132, 133, 134, 138, 139, 140, or 142.
This course offers applied instruction in voice, piano, or traditional band or orchestral instrument with an assigned instructor on the applied music staff. Emphasis on technique and repertoire representative of various periods and composers includes one hour per week recital attendance and one half hour individual lesson per week. Performance for a faculty jury will be required at the end of the semester. This course may be taken for a maximum of 2 units. (Formerly MUS 35)
Transfer Credit: CSU; UC

MUS 151
PRIVATE STUDY/RECITAL IV 1 UNIT
Class hours: 1 lecture plus 6 hours arranged
Prerequisite: None.
Corequisite: Enrollment in a music-performance course related to the student's private study: MUS 124, 125, 126, 129, 130, 131, 132, 133, 134, 138, 139, 140, or 142.
This course offers applied instruction in voice, piano, or traditional band or orchestral instrument with an assigned instructor on the applied music staff. Emphasis on technique and advanced repertoire representative of various periods and composers includes one hour per week recital attendance and one half hour individual lesson per week. Performance for a faculty jury will be required at the end of the semester. This course may be repeated for a maximum of 2 units. (Formerly MUS 34)
Transfer Credit: CSU; UC

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<tr>
<th>Course Code</th>
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<tr>
<td>MUS 124</td>
<td>Concert Band</td>
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<td>Audition</td>
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<tr>
<td>MUS 125</td>
<td>Community Symphonic Band</td>
<td>2.5</td>
<td>2 lecture/2 lab</td>
<td>None</td>
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<tr>
<td>MUS 126</td>
<td>Pep Band</td>
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<td>2 lecture/2 lab</td>
<td>None</td>
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<tr>
<td>MUS 127</td>
<td>Orchestra</td>
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<tr>
<td>MUS 128</td>
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</tr>
<tr>
<td>MUS 129</td>
<td>Woodwind Ensemble</td>
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<td>MUS 130</td>
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<td>MUS 132</td>
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<td>MUS 133</td>
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<tr>
<td>MUS 134</td>
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transfer. Emphasis will be placed upon the development of individual musicianship through both large group and small group rehearsal. Musical compositions of a wide variety of styles will be studied. Required participation in concerts may include both on-campus and off-campus events. This course may be taken for a maximum of 10 units. (Formerly MUS 79)

Transfer Credit: CSU; UC

MUS 136
STRING ENSEMBLE 1.5 UNITS
Class hours: 1 lecture/2 lab
Prerequisite: None.
This class provides each individual student the opportunity to learn and execute the principles of string ensemble playing that only intimate chamber music can provide. Among the topics covered will be musical styles, phrasing, balance and blending techniques, intonation, rehearsal techniques, and performance experience. This course may be taken for a maximum of 6 units. (Formerly MUS 80)

Transfer Credit: CSU; UC

MUS 138
COMMUNITY CHORUS 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
This choral ensemble is designed for the student who has little or no previous vocal experience. Emphasis will be placed on the development of individual musicianship through the study of musical styles, vocal concepts and repertoire. A variety of traditional choral music ranging from renaissance to the twentieth century will be studied and performed. Required participation in concerts may include both on-campus and off-campus events. This course may be taken for a maximum of 10 units. (Formerly MUS 82)

Transfer Credit: CSU; UC

MUS 139
COLLEGE CHORUS 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
This choral ensemble is designed for the student who has little or no previous vocal experience. Emphasis will be placed upon the development of individual musicianship through the study of vocal concepts and repertoire. A variety of gospel styles ranging from traditional to contemporary will be studied and performed. Required participation in concerts may include both on-campus and off-campus events. This course may be taken for a maximum of 10 units. (Formerly MUS 83)

Transfer Credit: CSU; UC

MUS 140
POP CHOIR 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: By audition.
This choral ensemble is designed for the student who has had previous vocal experience. Emphasis will be placed upon the development of individual musicianship through the study of musical styles, vocal concepts and repertoire. A wide variety of music ranging from Broadway musicals to pop and jazz charts will be studied. Required participation in concerts may include both on-campus and off-campus events. This course may be taken for a maximum of 10 units. (Formerly MUS 89)

Transfer Credit: CSU

MUS 141
POP/ROCK ENSEMBLE 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite:Audition.
This course will provide the students an opportunity to learn and perform contemporary music with an emphasis on pop, rock, and Latin. Aspects to be considered will include style, repertoire, instrumentation, equipment, visual presentation, and management. This course may be taken for a maximum of 10 units. (Formerly MUS 91)

MUS 250
CLINICAL WORKSHOP 1 0.5 UNIT
Class hours: 4.5 lecture/13.5 lab total semester hrs
Prerequisite: By audition.
This course is designed for students entering the second year of the nursing program. Included are assessment processes and individualized planning to assist the student in attaining the necessary level of skills competence to support success in the nursing program. This course is offered on a credit/no credit basis only. This course may be taken for a maximum of 1.5 units.

NRSG 26 (Not degree applicable)
PREPARING FOR NURSING 2 UNITS
Class hours: 2 lecture
Prerequisite:None.
This course is designed for students planning to enter the nursing career. Content includes how to use time and other resources to become a successful nursing student. Overviews of nursing career options and educational pathways are presented, along with trends affecting nursing's future. Students are introduced to medical terminology and communication skills for use with a diverse student and patient population.

NRSG 27 (Not degree applicable)
CLINICAL WORKSHOP 1 0.5 UNIT
Class hours: 4.5 lecture/13.5 lab total semester hrs
Prerequisite: Current license as a Licensed Psychiatric Technician or Licensed Vocational Nurse or completion of one or more nursing core courses in an approved/accredited nursing program.
Corequisite: None.
Recommendation: None.

The purpose of this course is to provide the nursing applicant with theoretical concepts and skill demonstration and practice related to clinical competency necessary for advanced placement students entering the first year of the nursing program. Included are assessment processes and individualized planning to assist the student in attaining the necessary level of skills competence to support success in the nursing program. This course is offered on a credit/no credit basis only. This course may be taken for a maximum of 1.5 units.

NRSG 47T (Not degree applicable)
SUPERVISED NURSING - TUTORIAL 0 UNIT
Class hours: 9 lab
Open entry/open exit
Prerequisite: None.
Corequisite: Any nursing course or equivalent.

This course is designed to facilitate the learning of nursing knowledge, skills, and concepts through individualized and mediated instruction. It is open to students in the nursing program or planning to transfer into the program. This course is offered on a credit/no credit basis only. (Formerly NRSG 99)
NURSING 200
PHARMACOLOGY FOR NURSES  2 UNITS
Class hours: 2 lecture
Prerequisite: A&P 130 or equivalent with a grade of Credit or “C” or higher.
This course introduces the student to the fundamentals of pharmacology as they relate to the nursing management of drug therapy. Prototype drugs, selected from the major drug classes, are used to illustrate important drug facts. Core drug knowledge is integrated with core patient knowledge to provide a framework for nursing management in drug therapy. (Formerly HO 20, NRSG 20)
Transfer Credit: CSU

NRSG 207
MEDICAL-SURGICAL
NURSING III  5 UNITS
Class hours: 5 lecture/15 lab (9 weeks)
Prerequisites: NRSG 214 or NRSG 200 or equivalent with grades of Credit or “C” or higher.
Corequisite: HO 236 and HO 237 or equivalent with grades of Credit or “C” or higher.
The focus of this course is on increasingly complex nursing theory and clinical application of additional skills required for the care of adult medical-surgical patients in an acute care setting. The student will participate as a member of the health care team and will demonstrate in-depth application of nursing process utilizing the Roy Adaptation Model. Special emphasis is placed upon nursing intervention and the evaluation process in each of the four adaptive modes (physiologic, self-concept, role function, and interdependence.) The student must receive a “C” or better in the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 1.4)
Transfer Credit: CSU

NRSG 208
OBSTETRICAL/ PEDIATRIC
NURSING  5.5 UNITS
Class hours: 6 lecture/15 lab (9 weeks)
Prerequisite: NRSG 207 or equivalent with a grade of Credit or “C” or higher.
Corequisite: HO 236 and HO 237 or equivalent or prior completion with grades of Credit of “C” or higher.
This course consists of two modules which encompass theory and clinical application of concepts related to nursing care of families. The focus of each module is on the nursing process utilizing the Roy Adaptation Model. Content includes normal and pathophysiologic conditions of the female reproductive system during the child-bearing period; high risk conditions in the child bearing family; and acute, chronic, and catastrophic conditions of childhood and adolescence. Uniforms are required. The student must receive a “C” grade or better in the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 1.4)
Transfer Credit: CSU

NRSG 210
FUNDAMENTALS OF NURSING  2 UNITS
Class hours: 3 lecture/9 lab (6 weeks)
Prerequisite: A&P 130, MICR 200, HO 151 or HO 152, HO 236, HO 237, PSYC 100 or equivalent with grades of Credit or “C” or higher and admission to Nursing Program.
Corequisite: None.
Recommendation: None.
This course focuses on the introduction and beginning application of therapeutic communication techniques and fundamental skills required for patient care. The role of the nurse as a member of the health care team is introduced. The primary patient focus is the geriatric patient in long-term care settings. The student must receive a grade of “C” or higher in the lecture component and a satisfactory grade in clinical lab to pass the course.
Transfer Credit: CSU

NRSG 211
INTRODUCTION TO THEORETICAL FRAMEWORK  0.5 UNIT
Class hours: 1.5 lecture (6 weeks)
Prerequisite: Admission to the Nursing Program or possession of an active Licensed Psychiatric Technician license.
Corequisite: None.
Recommendation: None.
This course introduces beginning nursing students and Licensed Psychiatric Technicians to the theoretical framework used in the Cerritos College Nursing Program. The roles of the Associate Degree Nurse as Provider of Care, Manager of Care and Member of the Discipline of Nursing are surveyed. An overview of the nursing process and the Roy Adaptation Model for Nursing are presented.
Transfer Credit: CSU

NRSG 212
MEDICAL-SURGICAL
NURSING 1  3.5 UNITS
Class hours: 6 lecture/13.5 lab (9 weeks)
Prerequisite: NRSG 210 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: NRSG 211 and NRSG 213, or equivalents with grades of Credit or “C” or higher or concurrent enrollment.
This course focuses on introduction and application of the Roy Adaptation Model, nursing process and roles of the Associate Degree Nurse. Theories are emphasized as the basis for providing nursing care to culturally and ethnically diverse patients. The focus of patient care is on less acutely ill medical-surgical patients in long-term and acute settings. Basic adult physical assessment skills are introduced and applied to healthy clients with identification of normal and common abnormal findings. The student must receive a grade of “C” or higher in the lecture component and a satisfactory grade in clinical lab in order to pass the course.
Transfer Credit: CSU

NRSG 213
SURVEY OF PHARMACOLOGY  0.5 UNIT
Class hours: 1.5 lecture (6 weeks)
Prerequisite: A&P 130 or equivalent with a grade of Credit or “C” or higher. Admission to the Nursing Program.
Corequisite: None.
Recommendation: None.
This course introduces the student to the nursing management of drug therapy. Prototype drugs, selected from the major drug classes, are used to illustrate important drug facts. Core drug knowledge is integrated with core patient knowledge to provide a framework for nursing management in drug therapy.
Transfer Credit: CSU

NRSG 214
MEDICAL-SURGICAL
NURSING 2  3 UNITS
Class hours: 4 lecture/13.5 lab (6 weeks)
Prerequisite: NRSG 212 or equivalent with a grade of Credit or “C” or higher.
Corequisite: NRSG 211 and NRSG 213 or prior completion with grades of Credit or “C” or higher.
Recommendation: None.
This course focuses on the application of the Roy Model and Nursing Process for the care of patients with specific conditions. Theory and application of physical assessment of the healthy adult continues and is applied clinically to patients in acute care settings. The focus of patient care is the acutely ill patient in medical-surgical care settings. The student must receive a grade of “C” or higher in the lecture component and a satisfactory grade in clinical lab in order to pass the course.
Transfer Credit: CSU

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NRSG 215
ADVANCED PLACEMENT BRIDGE 1 UNIT
Class hours: 2 lecture (9 weeks)
Prerequisite: An active LVN license or current enrollment in a vocational or registered nursing program or completion of one or more Associate Degree Nursing or Bachelor of Science in Nursing courses with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: Completion of READ 54, ENGL 52, and MATH 60 or equivalent with grades of Credit or "C" or higher or successful completion of the college placement process. This course introduces Licensed Vocational Nurses and students transferring from other nursing programs to the theoretical framework used in the Cerritos College Nursing Program. The roles of the Associate Degree Nurse as Provider of Care, Manager of Care and Member of the Discipline of Nursing are surveyed. The Roy Adaptation Model for nursing is taught as the basis for providing nursing care. Content also includes communication theory and application, client teaching concepts, assertion theory, and critical thinking foundational skills. Assessment of prior learning is used to guide individual students in preparing for advanced placement in the nursing program. (Formerly NRSG 1.5)
Transfer Credit: CSU

NRSG 218
PSYCHOSOCIAL NURSING 3.5 UNITS
Class hours: 4 lecture/9 lab (9 weeks)
Prerequisite: NRSG 208, HO 236 and HO 237 or equivalents with grades of Credit or "C" or higher. For Option C, Students may take HO 236 and HO 237 concurrently.
The focus of this course is on the theory and clinical application of the nursing process through utilization of the Roy Adaptation Model in the care of clients in the acute psychiatric setting, substance abuse rehabilitation programs, and community living for the geron population. Emphasis will be on: maladaptive psychosocial behavior, rehabilitation and detoxification of clients who are abusing chemicals, therapeutic management of psychosocial disorders, and geron community living and preventive mental disability as alternatives to institutionalization. Uniforms may be required. The student must receive a "C" grade or better in the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 2.2)
Transfer Credit: CSU

NRSG 219
MEDICAL-SURGICAL NURSING IV 5.5 UNITS
Class hours: 6 lecture/15 lab (9 weeks)
Prerequisite: NRSG 218 and HO 236 and HO 237 or equivalents with grades of Credit or "C" or higher. For Option C, D, and E Students: Admission to the Nursing Program. For Option C Students: Completion of HO 236 and HO 237 or equivalents with grades of Credit or "C" or higher or concurrent enrollment.
The focus of this course is on the theory and application of the nursing process based on the Roy Adaptation Model in the care of the seriously ill medical-surgical patient with emphasis on the geron and patients undergoing rehabilitative therapies. Principles of leadership are introduced and applied clinically. Theories and principles of nursing care related to medical-surgical patients, introduced in previous courses, will continue to be emphasized and refined. The student must receive a "C" grade or better in the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 2.1)
Transfer Credit: CSU

NRSG 220
Effective Spring 2001
MEDICAL-SURGICAL NURSING 3 5.5 UNITS
Class hours: 6 lecture/15 lab
Prerequisite: NRSG 211, NRSG 213, NRSG 214 or equivalent with grades of Credit or "C" or higher. For Option B and E students: Admission to the Nursing Program.
Corequisite: None.
Recommendation: None.
This course focuses on increasingly complex nursing theory and clinical application of more complex skills required for care of adult medical-surgical patients in an acute care setting. Women's health disorders are also emphasized and the role of the nurse as Manager of Care is introduced. The student must receive a grade of "C" or higher in the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 2.2/NRSG 219)
Transfer Credit: CSU

NRSG 222
Effective Spring 2001
MATERNAL/CHILD NURSING 5.5 UNITS
Class hours: 6 lecture/15 lab
Prerequisite: NRSG 220 and HO 236 or equivalent with grades of Credit or "C" or higher.
Corequisite: None.
Recommendation: This course focuses on the theory and clinical application of concepts related to the nursing care of childbearing women and children. The Roy Adaptation Model and nursing process are the theoretical framework emphasized as the basis for providing nursing care. Content includes normal and pathophysiological conditions of pregnancy and acute and chronic conditions of infants, children and adolescents. Acute and community based care settings are utilized. The student must receive a "C" grade or higher in the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 2.1/NRSG 219)
Transfer Credit: CSU

NRSG 230
Effective Fall 2001
PSYCHOSOCIAL AND COMMUNITY NURSING 5 UNITS
Class hours: 6 lecture/12 lab
Prerequisite: NRSG 222 or equivalent with a grade of Credit or "C" or higher. For Option C, D, E and F students: Admission to the Nursing Program.
The focus of this course is on the theory and clinical application of the Roy Adaptation Model and concepts related to the roles of the Associate Degree Nurse in the care of clients in the community settings. These include acute and psychiatric care settings, various rehabilitation programs, hospices, schools, and other community-based settings. Continuity of care and the ADN's role in case management are stressed. The student must receive a "C" grade or better in the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 2.2/NRSG 218)
Transfer Credit: CSU

NRSG 232
Effective Fall 2001
MEDICAL-SURGICAL NURSING 4 5.5 UNITS
Class hours: 6 lecture/15 lab (9 weeks)
Prerequisite: NRSG 230 or equivalent with a grade of Credit or "C" or higher. For Option C, D, and E students: Admission to the Nursing Program.
The focus of this course is on the theory and application of the nursing process based on the Roy Adaptation Model and in the care of the seriously ill medical-surgical patient. There is continued emphasis on theories and principles of providing nursing care to medical-surgical patients and management of care, which were introduced in previous courses. The student must receive a "C" grade or better in the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 2.1/NRSG 219)
Transfer Credit: CSU
ACTIVITY 3 UNITS

NRSG 240 Effective Spring 2002

MEDICAL-SURGICAL

NURSING 5 5 UNITS

Class hours: 6 lecture/12 lab (9 weeks)
Prerequisite: NRSG 232 or equivalent with a grade of Credit or “C” or higher. For Option E and F Students: Admission to the Nursing Program.

The main focus of this course is the theory and application of the nursing process in special care areas, utilizing the Roy Adaptation Model. The nurse’s role as Manager of Care, introduced in previous courses, continues to be emphasized and refined. Course content includes: legal and ethical issues as they apply to nursing practice, community health issues, and advanced medical-surgical concepts. The student must receive a “C” grade or better in the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 2 3/NRSG 270)
Transfer Credit: CSU

NRSG 242 Effective Spring 2002

PROFESSIONAL ROLE

TRANSITION 3 UNITS

Class hours: 1.5 lecture/23 lab (6 weeks)
Prerequisite: NRSG 240 or equivalent with a grade of Credit or “C” or higher.

The focus of this course is on the role transition from student nurse to registered nurse. Preparation for and professional responsibilities in employment are discussed. The student participates as a preceptor member of the health care team and assumes responsibility for a group of patients under the direct supervision of a qualified registered nurse.

The student must receive a “C” grade or better in the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 2 4/NRSG 280)
Transfer Credit: CSU

NRSG 251

BASIC ADULT PHYSICAL ASSESSMENT 1 UNIT

Class hours: 1 lecture/3 lab (9 weeks)
Prerequisite:Current or prior enrollment in an accredited nursing program or licensure as a health care provider.
Corequisite: None.
Recommendation: None.

This course focuses on physical examination of healthy adults stressing identification of normal and common abnormal findings in diverse populations. Variations due to normal age-related changes are presented. Examination techniques and elements of assessing functional, cognitive, and fluid status are introduced. Analysis of findings with clinical application is emphasized from the perspective of the entry-level Registered Nurse. Basic physical examination is limited to selected body structures within the following organ systems: integumentary, sensory, respiratory, cardiovascular, gastrointestinal, musculoskeletal, and neurological.

This course is offered on a credit/no credit basis only. (Formerly NRSG 6)
Transfer Credit: CSU

NRSG 270

MEDICAL-SURGICAL

NURSING V 5 UNITS

Class hours: 6 lecture/12 lab (9 weeks)
Prerequisite: NRSG 219 or equivalent with a grade of Credit or “C” or higher. For Option C Students: HO 236 and HO 237 or equivalents with grades of Credit or “C” or higher. For Option E and F Students: Admission to the Nursing Program.

The main focus of this course is the theory and application of the nursing process in special care areas, utilizing the Roy Adaptation Model. Leadership principles introduced in NRSG 219 will continue to be emphasized and refined. Course content includes: legal issues as they apply to nursing practice, community health issues, and advanced medical-surgical concepts. The student must receive a “C” grade or better in the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 2 3)
Transfer Credit: CSU

NRSG 280

PROFESSIONAL ROLE

TRANSITION 3 UNITS

Class hours: 1.5 lecture/23 lab (6 weeks)
Prerequisite: NRSG 270 or equivalent with a grade of Credit or “C” or higher.

The focus of this course is on the role transition from student nurse to registered nurse. Preparation for and professional responsibilities in employment will be discussed. The student will participate as a preceptor member of the health care team and will assume responsibility for a group of patients under the direct supervision of a qualified registered nurse. Uniforms are required. The student must receive a “C” grade or better in the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 2 4)
Transfer Credit: CSU

NRSG 270

MEDICAL-SURGICAL

NURSING V 5 UNITS

Class hours: 6 lecture/12 lab (9 weeks)
Prerequisite: NRSG 219 or equivalent with a grade of Credit or “C” or higher. For Option C Students: HO 236 and HO 237 or equivalents with grades of Credit or “C” or higher. For Option E and F Students: Admission to the Nursing Program.

The main focus of this course is the theory and application of the nursing process in special care areas, utilizing the Roy Adaptation Model. Leadership principles introduced in NRSG 219 will continue to be emphasized and refined. Course content includes: legal issues as they apply to nursing practice, community health issues, and advanced medical-surgical concepts. The student must receive a “C” grade or better in the lecture component and a satisfactory grade in clinical lab in order to pass the course. (Formerly NRSG 2 3)
Transfer Credit: CSU

ORNH 1 (Not degree applicable)

LANDSCAPE-GARDENER TRAINING 3 UNITS

Class hours: 2 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.

This course provides classroom education and practical experience so students can be readily employable as landscape gardeners. Basic knowledge and skills are provided in the areas of basic horticulture, landscaping, use of power equipment, irrigation, and safety. Practical skills are taught through supervised, outside, on-the-job experiences. Fundamentals of landscaping and horticulture are taught for rapid employability. This course is offered on a credit/no credit basis only. (Formerly ORNH 10.5)

ORNH 2 (Not degree applicable)

BONSAI 1 UNIT

Class hours: 1.5 lecture/1.5 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.

Bonsai is the Japanese art of creating a perfect tree in miniature form. Basic classic Japanese styles are explained, discussed, and demonstrated in this class. The history of bonsai, use of basic tools, wiring, and plant choices are covered. Care, pruning, fertilizing, and basic watering methods are incorporated with in-class projects. This course may be taken for a maximum of 2 units. (Formerly ORNH 69.2/ ORNH 28)

ORNH 3 (Not degree applicable)

ADVANCED BONSAI 1 UNIT

Class hours: 1.5 lecture/1.5 lab (9 weeks)
Prerequisite: ORNH 2 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.

Bonsai is the Japanese art of creating a perfect tree in miniature form. This class
involves more advanced and creative styles of bonsai. Fertilizing, root pruning, maintenance, and care are stressed in this class. This course may be taken for a maximum of 2 units. (Formerly ORNH 69. 3/ORNH 29)

ORNH 4A (Not degree applicable)  
ADVANCED SPECIAL OCCASIONS  
FLORAL DESIGN III  2 UNITS  
Class hours: 1.5 lecture/1.5 lab  
Prerequisite: ORNH 61A or equivalent with a grade of Credit or “C” or higher.  
Corequisite: None.  
Recommendation: None.  
This advanced course emphasizes advanced floral techniques and upscale designs for special fall parties and holidays. A wide variety of flowers are used, and special projects are developed and implemented. This course may be taken for a maximum of 4 units. (Formerly ORNH 69. 1/ORNH 33. 3)

ORNH 4B (Not degree applicable)  
ADVANCED SPECIAL OCCASIONS  
FLORAL DESIGN IV  2 UNITS  
Class hours: 1.5 lecture/1.5 lab  
Prerequisite: ORNH 61B or equivalent with a grade of Credit or “C” or higher.  
Corequisite: None.  
Recommendation: None.  
This advanced course emphasizes advanced floral techniques and upscale designs for special fall parties and holidays. A wide variety of flowers are used, and special projects are developed and implemented. This course may be taken for a maximum of 4 units. (Formerly ORNH 33. 4)

ORNH 50  
BASIC LANDSCAPE  
IRRIGATION  1.5 UNITS  
Class hours: 2 lecture/3 lab (9 weeks)  
Prerequisite: None.  
The course will introduce students to the basic types of irrigation equipment and materials. Emphasis will be on design of residential systems, how to determine flow calculations, soil/plant water relationships, site and drainage problems. Lab projects will include actual design problems. Topics to be covered will include plumbing codes, backflow prevention, cost estimating and related subjects. (Formerly ORNH 20)

ORNH 51  
ADVANCED LANDSCAPE  
IRRIGATION  1.5 UNITS  
Class hours: 2 lecture/3 lab (9 weeks)  
Prerequisite: ORNH 50 or equivalent with a grade of Credit or “C” or higher.  
The course will cover advanced irrigation systems, equipment and materials. Emphasis will be on system design, flow calculations, large commercial site requirements and drainage. Topics to be covered include plumbing codes, fountains, pools, automatic controls, cost estimating and related subjects. (Formerly ORNH 21)

ORNH 52  
RESIDENTIAL LANDSCAPE  
DESIGN  1.5 UNITS  
Class hours: 2 lecture/3 lab (9 weeks)  
Prerequisite: ORNH 100 or equivalent with a grade of Credit or “C” or higher.  
The course covers basic residential design concepts. Emphasis is placed on low maintenance, energy saving residential landscape design. Topics to be covered will include design of entry and sidewalk areas, patios, play and service areas. (Formerly ORNH 22)

ORNH 53  
COMMERCIAL LANDSCAPE  
DESIGN  1.5 UNITS  
Class hours: 2 lecture/3 lab (9 weeks)  
Prerequisite: ORNH 100 or equivalent with a grade of Credit or “C” or higher.  
Basic commercial design concepts and elements, low maintenance plant material and turf will be presented. Emphasis will be placed on attention to traffic patterns and parking as related to the Southern California environment and lifestyles. (Formerly ORNH 23)

ORNH 54  
LANDSCAPE CONTRACTING/  
MANAGEMENT  1.5 UNITS  
Class hours: 3 lecture (9 weeks)  
Prerequisite: None.  
This course is an introduction to the landscape business. Management principles related to the industry such as hiring and training of employees, on site supervision, work scheduling and labor relations will be covered. State and local licensing regulations will be introduced. (Formerly ORNH 24)

ORNH 55  
LANDSCAPE CONTRACTING/  
OPERATIONS  1.5 UNITS  
Class hours: 3 lecture (9 weeks)  
Prerequisite: ORNH 100 or equivalent with a grade of Credit or “C” or higher.  
This course is an introduction to the operations of landscape contracting; included are basic landscape construction practices, pricing of materials, bidding and estimation, and the ordering and handling of plant materials. Landscape contracting philosophy, ethics, law and professional business practices will also be presented. (Formerly ORNH 25)

ORNH 56  
PLANT DISEASE CONCEPTS  1.5 UNITS  
Class hours: 2 lecture/3 lab (9 weeks)  
Prerequisite: ORNH 100 or equivalent with a grade of Credit or “C” or higher.  
The course covers plant disease concepts. The emphasis is placed on plant disease recognition and appropriate management practices and recognition of common plant diseases are stressed. (Formerly ORNH 26)

ORNH 57  
PLANT DISEASE MANAGEMENT  1.5 UNITS  
Class hours: 2 lecture/3 lab (9 weeks)  
Prerequisite: ORNH 56 or equivalent with a grade of Credit or “C” or higher.  
This course introduces the student to most prevalent diseases of Southern California plants. Emphasis of the class will be on the recognition of symptoms in relation to proper treatment and prevention of local plant diseases. (Formerly ORNH 27)

ORNH 58  
INTERIOR PLANTSCAPES:  
HOUSEPLANTS  2 UNITS  
Class hours: 2 lecture/1 lab  
Prerequisite: None.  
Recommendation: ORNH 100 or equivalent with a grade of Credit or “C” or higher.  
This is an introductory course in houseplants. A study will be made of factors involved in houseplant selection, care, maintenance, and proper use. Decisions involved in proper plant placement for interior horticultural use will be examined. (Formerly ORNH 30)
ORNH 59
BASIC FLORAL DESIGN 2 UNITS
Class hours: 1.5 lecture/1.5 lab
Prerequisite: None.
This course will provide the student with knowledge, skills and experience which are basic to the floral industry. The course will cover basic floral arrangements, the use of standard flowers in bud vases, simple corsages, dish gardens, holiday arrangements and novelty items. Skills learned will qualify students for entry level employment in the floral industry. (Formerly ORNH 31)

ORNH 60
ADVANCED FLORAL DESIGN 2 UNITS
Class hours: 1.5 lecture/1.5 lab
Prerequisite: ORNH 59 or equivalent with a grade of Credit or "C" or higher.
This course emphasizes advanced floral design. Non-traditional type flowers will be combined into mixed arrangements, high style, holiday arrangements, wedding and funeral projects. Dry flower arrangements, window displays, fruit and party designs will also be covered. This course may be taken for a maximum of 4 units. (Formerly ORNH 32)

ORNH 61A
SPECIAL OCCASIONS FLORAL DESIGN I 2 UNITS
Class hours: 1.5 lecture/1.5 lab
Prerequisite: ORNH 59 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course emphasizes advanced floral techniques and upscale designs for fall and winter parties and holidays. A wide variety of flowers are used, and special projects are developed and implemented. This course may be taken for a maximum of 4 units. (Formerly ORNH 33.1)

ORNH 61B
SPECIAL OCCASIONS FLORAL DESIGN II 2 UNITS
Class hours: 1.5 lecture/1.5 lab
Prerequisite: ORNH 59 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course emphasizes advanced floral designs for special occasions which occur in the spring season. A wide variety of flowers will be used in developing class and individual projects. This course may be taken for a maximum of 4 units. (Formerly ORNH 33.2)

ORNH 62A
WEDDING FLORAL DESIGN 2 UNITS
Class hours: 1.5 lecture/1.5 lab
Prerequisite: ORNH 59 or equivalent with a grade of Credit or "C" or higher.
This course emphasizes floral designs for weddings and the many floral specialties that may be used for weddings. A wide variety of flowers will be used and special projects will be developed and executed. This course may be taken for a maximum of 4 units. (Formerly ORNH 34)

ORNH 62B
WEDDING FLORAL DESIGN I 2 UNITS
Class hours: 1.5 lecture/1.5 lab
Prerequisite: ORNH 59 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course focuses on floral design for weddings. Emphasis is placed on flower arrangements for the bride and bridal party. A wide variety of flowers will be used and special projects will be developed and implemented. This course may be taken for a maximum of 4 units. (Formerly ORNH 34.1)

ORNH 62C
WEDDING FLORAL DESIGN II 2 UNITS
Class hours: 1.5 lecture/1.5 lab
Prerequisite: ORNH 59 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course focuses on floral design for weddings. Emphasis is placed on flower arrangements used in decorations for the wedding and reception. A wide variety of flowers are used and special projects are developed and implemented. This course may be taken for a maximum of 4 units. (Formerly ORNH 34.2)

ORNH 63
INTEGRATED FLORAL DESIGN 1 UNIT
Class hours: 1.5 lecture/1.5 lab (9 weeks)
Prerequisite: ORNH 59 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course emphasizes utilization and integration of a variety of floral and non-floral materials in advanced floral design. Silks, fabrics, and dried plant matter are used. This course may be taken for a maximum of 2 units. (Formerly ORNH 35)

ORNH 64
FLORAL DESIGN FOR FUNERALS 1 UNIT
Class hours: 1.5 lecture/1.5 lab
Prerequisite: ORNH 59 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course emphasizes advanced floral designs for funerals. A wide variety of flowers and related materials are used to construct assigned projects. This course may be taken for a maximum of 2 units. (Formerly ORNH 36)

ORNH 65
TREE MAINTENANCE I 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: ORNH 100 or equivalent with a grade of Credit or "C" or higher.
This course covers the basic concepts of tree growth, selection, proper planting methods and soil management. Basic tree pruning techniques, fertilization and irrigation practices will be covered. Current trends and philosophy of tree maintenance of the Southern California area will be emphasized. (Formerly ORNH 40)

ORNH 66
TREE MAINTENANCE II 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: ORNH 65 or equivalent with a grade of Credit or "C" or higher.
This course introduces fundamental safety working practices and basic safety equipment practices involved with tree maintenance. Cable and bracing techniques and wound repairing will be covered. Spraying fundamentals and integrated pest management controls and practices for Southern California trees will be covered. (Formerly ORNH 41)

ORNH 67
LANDSCAPE DESIGN RENDERING 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: ORNH 100 and ORNH 180 or equivalent with grades of Credit or "C" or higher.
This course is involved with the rendering of landscape designs with various kinds of media. Basic practices and uses of pastels, prisma and markers will be stressed on practical landscape projects. Highlighting, shading, delineating landscape plans for advanced designers of hardscapes and softscapes will also be covered. (Formerly ORNH 42)
Announcement of Courses

ORNH 68  
LANDSCAPE PLANTING DESIGN  
1.5 UNITS  
Class hours: 3 lecture (9 weeks)  
Prerequisite: ORNH 100 or equivalent with grades of Credit or “C” or higher.  
This course develops plant relationships and combinations of plants for landscapes of Southern California. Planter designs and specialty areas in landscaping themes and styles will be developed. Seasonal color changes in planting designs and choices of popular styles and themes will be investigated. Landscape designs of Southern California. (Formerly ORNH 43)

ORNH 100  
INTRODUCTION TO ORNAMENTAL HORTICULTURE  
3 UNITS  
Class hours: 3 lecture  
Prerequisite: None.  
This is an introductory course in Ornamental Horticulture. Plant structure, terms, growth, and functions, plant identification, water, soil, light, temperature, fertilizers, propagation, pruning, insects, weeds, diseases, and industry will be studied. (Formerly ORNH 10)  
Transfer Credit: CSU

ORNH 110  
SOILS  
4 UNITS  
Class hours: 3 lecture/3 lab  
Prerequisite: ORNH 100 or equivalent with a grade of Credit or “C” or higher.  
This is an introductory course in soils. Soil development, soil and water, soil properties, physical and chemical, use of fertilizer, conservation and irrigation will be presented. The effect of soils and water on living plants will be observed. (Formerly ORNH 11)  
Transfer Credit: CSU; UC

ORNH 120  
ORNAMENTAL TREES  
4 UNITS  
Class hours: 3 lecture/3 lab  
Prerequisite: ORNH 100 or equivalent with a grade of Credit or “C” or higher.  
This course includes identification of trees, growth habits, and use of trees adapted to So. California. It includes the planting, growth, fertilizing, pruning, disease and pest control. (Formerly ORNH 12)  
Transfer Credit: CSU

ORNH 130  
ORNAMENTAL SHRUBS  
4 UNITS  
Class hours: 3 lecture/3 lab  
Prerequisite: ORNH 100 or equivalent with a grade of Credit or “C” or higher.  
This is a course in identification of ornamental shrubs, their habits, culture, diseases, and problems will be studied. The use of specific shrubs in landscaping will be presented. (Formerly ORNH 13)  
Transfer Credit: CSU

ORNH 140  
PLANT PROPAGATION  
3 UNITS  
Class hours: 2 lecture/3 lab  
Prerequisite: ORNH 100 or equivalent with a grade of Credit or “C” or higher.  
This is a course in theory and practices of plant propagation—seeding, cutting, division, layering, budding, and grafting. Study will include propagation structures, environmental mediums, the root inducing materials, the light and control units. Students will be required to propagate plant material in the lab. (Formerly ORNH 14)  
Transfer Credit: CSU

ORNH 150  
TURF GRASS MANAGEMENT AND GROUNDCOVERS  
4 UNITS  
Class hours: 3 lecture/3 lab  
Prerequisite: ORNH 100 or equivalent with a grade of Credit or “C” or higher.  
This is a practical study of turf and groundcovers, covering identification, fertilization, soil problems, drainage, weed and pest control and maintenance. Included is propagation, turf equipment, turf plot study and specialized problems. (Formerly ORNH 15)  
Transfer Credit: CSU

ORNH 160  
INSECTS AND WEEDS  
4 UNITS  
Class hours: 3 lecture/3 lab  
Prerequisite: ORNH 100 or equivalent with a grade of Credit or “C” or higher.  
A course in insects and weeds as related to plant growth and culture. Identification, life cycle, plant damage and controls will be studied. (This course will help prepare for California Agriculture Pest and Weed Control Advisors license examination.) (Formerly ORNH 16)  
Transfer Credit: CSU

ORNH 180  
BASIC LANDSCAPE DESIGN  
4 UNITS  
Class hours: 3 lecture/3 lab  
Prerequisite: ORNH 100 or equivalent with a grade of Credit or “C” or higher.  
This is an introductory course in landscape design as it applies to Southern California weather, soil, environment, and plant materials. It includes basic estimating, sprinkler systems, and re-lanscaping techniques for small residences. (Formerly ORNH 18)  
Transfer Credit: CSU

ORNH 190  
NURSERY MANAGEMENT AND OPERATIONS  
3 UNITS  
Class hours: 3 lecture  
Prerequisite: ORNH 100 or equivalent with a grade of Credit or “C” or higher.  
This course presents an overview of the nursery industry. It includes topics such as wholesale marketing and shipping, soil management, propagation techniques, irrigation methods and nursery stock management. Storage facilities, inventory control and appropriate business practices specific to the nursery industry will be emphasized. (Formerly ORNH 19)  
Transfer Credit: CSU

PARALEGAL  
SEE BL  (Business Paralegal)

PHARMACY TECHNICIAN  
(Health Occupations Division)

PHAR 40L  
PHARMACY CLERK LAB  
1 UNIT  
Class hours: 1 lecture/2 lab (12 weeks)  
Prerequisite: None.  
Corequisite: PHAR 60 and PHAR 61  
Recommendation: None.  
This course is designed to provide the student with hands-on experience working with a computerized Pharmacy Management System in the retail setting. (Formerly PHAR 4)

PHAR 45  
RETAIL PRODUCTS FOR PHARMACY CLERKS  
2 UNITS  
Class hours: 3 lecture (12 weeks)  
Prerequisite: None.  
Corequisite: None.  
Recommendation: None.  
This course provides basic knowledge about Over-the-Counter (OTC) products in relation

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
to their accepted therapeutic uses. Students will understand the steps involved in safely choosing a non-prescription product. (Formerly PHAR 5)

PHAR 47
PHARMACY CLERK CLINICAL EXPERIENCE 2 UNITS
Class hours: 1 lecture/123 variable semester lab hours (6 weeks)
Prerequisite: PHAR 60 and PHAR 40L or equivalent with grades of Credit or “C” or higher. Verification of negative chest x-ray for non-reactive T.B. skin test within the last year.
Corequisite: None.
Recommendation: None.
This course is designed to provide the student with practical clerk experiences in selected outpatient community pharmacy settings working under the supervision of a registered pharmacist. (Formerly PHAR 6)

PHAR 50
PHARMACEUTICS 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: HO 56 or equivalent with a grade of Credit or “C” or higher.
Consumers will develop an understanding of disease processes, infection control, medication orders and patient profiles. Emphasis will be placed on routes of administration and product types. (Formerly PHAR 22)

PHAR 60
INTRODUCTION TO PHARMACY 1 UNIT
Class hours: 3 lecture (6 weeks)
Prerequisite: None.
Corequisite: PHAR 40L.
Recommendation: None.
This introductory course is designed to provide the student with an overview of the pharmacy profession and the role of the pharmacist, pharmacy technician and pharmacy clerk. PHAR 40L corequisite is required for Pharmacy Clerk track; no corequisite is required for Pharmacy Technician track. (Formerly PHAR 10)

PHAR 61
PHARMACY SKILLS DEVELOPMENT 1 UNIT
Class hours: 3 lecture (6 weeks)
Prerequisite: None.
Corequisite: PHAR 40L.
Recommendation: None.
This course is designed for the Pharmacy Technician/Clerk to develop those skills necessary to work in a setting dealing with patients (customers), pharmacists, and co-workers. Students will develop an understanding for the practical application of necessary etiquette, typing and computer skills. PHAR 40L corequisite is required for Pharmacy Clerk track; no corequisite is required for Pharmacy Technician track. (Formerly PHAR 3/PHAR 10.1)

PHAR 62
PHARMACY OPERATIONS I 0.5 UNIT
Class hours: 2 lecture/1 lab (6 weeks)
Prerequisite: PHAR 61 or equivalents with grades of Credit of “C” or higher. Considered necessary for Pharmacy Technician track.
Corequisite: None.
This course is designed for the student to develop those skills necessary to work in a setting dealing with patients, pharmacists, and co-workers in an inpatient setting. The student will develop an understanding of hospital distribution systems, medication order transcription and interpretation of various sections of a patient’s profile. (Formerly PHAR 11)

PHAR 63
PHARMACY OPERATIONS II 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: PHAR 62, BASS 62, and BASS 135 or equivalents with grades of Credit of “C” or higher. Corequisite: PHAR 64
This course is designed for the Pharmacy Technician major to develop proficiency in skills necessary to both hospital and community pharmacy settings. It will also introduce students to the many contemporary issues facing the pharmacy profession. Included will be use of forms, drug formularies, patient profiles, patient charts, processing of medication orders, drug manufacturing and packaging, and computers. (Formerly PHAR 13)

PHAR 64
PHARMACY OPERATIONS III 2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: PHAR 50 and PHAR 63 or equivalents with grades of Credit of “C” or higher. PHAR 63 and PHAR 64 may be taken concurrently; however, PHAR 64 cannot be taken prior to PHAR 63.
This course is designed to develop proficiency in manufacture and storage of medications, including intravenous admixtures and antineoplastic substances. It includes disease processes, infection control, manufacturing standards and pharmacy equipment. (Formerly PHAR 14)

PHAR 81
OVER-THE-COUNTER PRODUCTS 3 UNITS
Class hours: 3 lecture
Prerequisite: MA 161 or equivalent with a grade of Credit of “C” or higher.
This course provides knowledge about Over-the-Counter (OTC) products in relation to their classification and general actions to help a person select a non-prescription drug safely and rationally. (Formerly PHAR 15)

PHAR 83
PHARMACY TECHNICIAN PHARMACOLOGY I 3 UNITS
Class hours: 3 lecture
Prerequisite: MA 161 or equivalent with a grade of Credit of “C” or higher.
Recommendation: A&P 120 or equivalent with a grade of Credit of “C” or higher.
This pharmacology course covers information on drugs affecting the gastrointestinal system, vitamin and mineral balance, infectious diseases, neoplastic disorders, immunological function, hormonal function, mood and behavior and the eyes. Content includes how drugs exert their effects, adverse effects and major indications for drug use. Emphasis will be placed on routes of administration and product types. (Formerly PHAR 21)

PHAR 85
PHARMACY TECHNICIAN PHARMACOLOGY II 3 UNITS
Class hours: 3 lecture
Prerequisite: MA 161 or equivalent with a grade of Credit of “C” or higher.
Recommendation: A&P 120 or equivalent with a grade of Credit of “C” or higher.
This pharmacology course covers information on drugs affecting the respiratory, integumentary, nervous and cardiovascular systems. Content includes major indications for drug use, how drugs exert their effects, adverse effects and specific implications for consumer awareness. Drugs of abuse, at-risk populations and treatment regimens are included. Emphasis will be on routes of administration and product types. (Formerly PHAR 22)

PHAR 90
CLINICAL EXPERIENCE I 3 UNITS
Class hours: 1 lecture/120 variable semester lab hours
Prerequisite: PHAR 50, PHAR 63 and PHAR 81 or equivalents with grades of Credit or “C” or higher.
higher. Verification of negative chest x-ray or non-reactive T.B. skin test within the last year. This course is designed to provide the student with practical experiences in selected out-patient community pharmacy settings working under the supervision of a registered pharmacist. (Formerly PHAR 31)

PHAR 95
CLINICAL EXPERIENCE II 5 UNITS
Class hours: 1 lecture/200 variable semester lab hours
Prerequisite: PHAR 64, PHAR 83, and PHAR 85 or equivalent with grades of Credit or “C” or higher. Verification of negative chest x-ray or non-reactive T.B. skin test. This course is designed to provide the student with practical experiences in the classroom lab and in selected hospital pharmacy settings working with intravenous additives and sterile extemporaneous packaging areas. (Formerly PHAR 41)

PHAR 173/174
PHARMACY TECHNICIAN OCCUPATIONAL WORK EXPERIENCE 3-4 UNITS
Class hours: One (1) hour control class each week plus 15 hours of employment per week for Pharmacy Technician work experience 73 or 20 hours of employment per week for Pharmacy Technician work experience 74. The employment must be in a job related to the student's educational goal. Prerequisite: None. Corequisite: Enrollment in the Pharmacy Technician vocational program with 7 or more units including occupational work experience.

Occupational Work Experience is a supervised employment program in an approved work station related to the student’s declared major. Students meet with their instructor for a minimum of one hour per week and will receive credit for on-the-job learning experiences that are new or are an expansion of their regular responsibilities. This course may be repeated for a maximum of 8 units based on the number of hours on the job. (Formerly PHAR 73/74)

PHILOSOPHY

(Humanities/ Social Sciences Division)

PHIL 100
INTRODUCTION TO PHILOSOPHY 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.

This is a humanities course developing philosophical concepts through problems and systems of thought in selected Western philosophers such as Socrates, Plato, Aristotle, Augustine, Aquinas, Bacon, Kant, etc; it, furthermore, studies modern movements in Western culture such as dialectical materialism, pragmatism, analytic philosophy, and existentialism. (Formerly PHIL 5)

Transfer Credit: CSU; UC

PHIL 102
INTRODUCTION TO ETHICS 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 100, or ENGL 52 or equivalent with a grade of Credit or “C” or higher.

This course presents a survey of the major theories of value in the writings of some prominent philosophers of Western culture and Oriental tradition, with special attention to a critical evaluation of their relevance to educational, ethical, aesthetic, religious, and social problems of our times. (Formerly PHIL 6)

Transfer Credit: CSU; UC

PHIL 104
PHILOSOPHY OF CULTURAL DIVERSITY: CHALLENGE AND CHANGE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: ENGL 52 or equivalent with a grade of Credit or “C” or higher is strongly recommended.

This humanities course is designed to create understanding, appreciation, and tolerance of diverse cultures, particularly those of non-Western civilizations which are ethnic minority groups in American culture. Topics covered will include the nature of culture, the epistemology of cultural diversity, world views, religion, traditional values, ethnocentrism, cultural relativism, cultural pluralism, and the philosophy of liberation. (Formerly PHIL 8)

Transfer Credit: CSU; UC

PHIL 106
INTRODUCTION TO LOGIC 3 UNITS
Class hours: 3 lecture
Prerequisite: ENGL 100 or equivalent with a grade of Credit or “C” or higher.

This course gives an introduction to the basic principles of inductive and deductive reasoning, the uses of language, definition, analysis of fallacious arguments in various areas, and integration of composition and critical thinking skills. (Formerly PHIL 12)

Transfer Credit: CSU; UC

PHIL 200
WORLD RELIGIONS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or ENGL 155 or equivalent with a grade of Credit or “C” or higher is strongly recommended.

This course presents a comparative study of the major religions of the world including Hinduism, Buddhism, Taoism, Judaism, Christianity, Islam, etc. The survey pertains to their origin, historic development, primary source book, theological doctrines and value system. (Formerly PHIL 7)

Transfer Credit: CSU; UC

PHIL 201
INTRODUCTION TO TWENTIETH CENTURY PHILOSOPHY 3 UNITS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or completion of ENGL 52 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: Satisfactory completion of READ 42 or equivalent with a grade of Credit or “C” or higher.

This course is a survey of the major philosophical movements that characterize the twentieth century, including the rise of Continental, Anglo-American, Marxist, Feminist, Asian, African, and Latin American philosophies. Students will become familiar with the diversity of styles, methods and approaches twentieth century philosophers have developed in response to the problems of self, subjectivity, consciousness, alienation, anxiety, authenticity, social justice, realism, relativism and the role of meaning and language in philosophical inquiry. (Formerly PHIL 9)

Transfer Credit: CSU; UC

PHIL 202
CRITICAL THINKING AND ARGUMENTATIVE WRITING 3 UNITS
Class hours: 3 lecture
Prerequisite: ENGL 100 or equivalent with a grade of Credit or “C” or higher.

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
PHOT 100
INTRODUCTORY PHOTOGRAPHY 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
This is a beginning class in the theory and practice of photography. The lecture portion of the class will emphasize historical trends, contemporary applications, and an appreciation of photography as an art and as a craft. The lab portion will introduce the student to camera technique, film exposure, processing, darkroom techniques, lighting, and composition. (Formerly PHOT 29)
Transfer Credit: CSU; UC

PHOT 102
INTERMEDIATE PHOTOGRAPHY 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: PHOT 100 or equivalent with a grade of Credit or "C" or higher.
This is a black-and-white photography course dealing with special film processing techniques, high-contrast applications, and a continuation of principles taught in the introductory class. Introduction to large format cameras, copying techniques, lighting setups, and commercial applications of photography will be covered in the lectures and in the laboratory. (Formerly PHOT 30)
Transfer Credit: CSU

PHOT 110
INTRODUCTION TO DIGITAL PHOTOGRAPHY 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides an introduction to the basics of digital photography. Topics include use of digital cameras; scanning techniques; file compression and formatting; use of image editing software (primarily Adobe Photoshop); printing techniques; and legal, philosophical and sociological issues associated with digital photography. Emphasis is placed on constructing meaning in imagery through digital techniques. (Formerly PHOT 92)
Transfer Credit: CSU

PHOT 111
INTERMEDIATE DIGITAL PHOTOGRAPHY 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: PHOT 110 or ART 192 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course continues the instruction in digital photographic technique begun in PHOT 110, and explores digital photography as a new visual arts medium. More intensive use of tools and filters in Adobe Photoshop and other art- and photo-related software, advanced camera techniques, and scanning and output methods are included with emphasis on constructing meaning in imagery through digital processes. (Formerly PHOT 93)
Transfer Credit: CSU

PHOT 112
INTERMEDIATE COLOR PHOTOGRAPHY 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: PHOT 120 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of principles learned in the introductory color class, with more in-depth skill development and image evaluation. The student is encouraged to explore color photography through experience with materials, darkroom techniques, and development of personal vision and style. (Formerly PHOT 34)
Transfer Credit: CSU

PHOT 120
INTRODUCTION TO COLOR SLIDE PHOTOGRAPHY 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: PHOT 100 or equivalent with a grade of Credit or "C" or higher.
This course covers the use of color photographic transparency materials in photography. Topics include color theory, color exposure techniques, film types, print techniques, composition, and the history of color photography. Emphasis is on experiential field and studio work. (Formerly PHOT 28)
Transfer Credit: CSU

PHOT 122
INTERMEDIATE COLOR PHOTOGRAPHY 3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: PHOT 102 or equivalent with a grade of Credit or "C" or higher.
This course provides instruction in the basic principles of color photography with darkroom experience. Negative and positive film developing and printing techniques are investigated. Emphasis is on photography as a fine art, stressing beginning visual awareness. (Formerly PHOT 35)
Transfer Credit: CSU

PHOT 160
HISTORY OF PHOTOGRAPHY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This comprehensive course covers photography from its very beginning to the present and speculates on the future. Great photographers, old cameras and new, and a variety of photographic processes will be covered. Part of the class time will be devoted to demonstration of old cameras and processes, and to field trips to view historical cameras and photographs. (Formerly PHOT 40)
Transfer Credit: CSU; UC
PHOT 200  
ADVANCED PHOTOGRAPHY  3 UNITS  
Class hours: 2 lecture/4 lab  
Prerequisite: PHOT 102 or equivalent with a grade of Credit or "C" or higher.  
This course is designed to advance each student's knowledge and skills in film processing, printing, large-format camera, lighting, camera techniques, and a professional presentation of photographs. Each student will be expected to present a high quality portfolio at the end of the semester. Class will include black-and-white as well as color assignments. (Formerly PHOT 31)  
Transfer Credit: CSU

PHOT 220  
ADVANCED COLOR PHOTOGRAPHY  3 UNITS  
Class hours: 2 lecture/4 lab  
Prerequisite: None.  
Corequisite: None.  
Recommendation: PHOT 124 or equivalent with a grade of Credit or "C" or higher.  
This course will focus on the non-traditional use of light, color, and materials in the production of color photographic images. Topics include shooting techniques, lighting techniques, film and paper types, darkroom methods, and camera techniques. This course may be taken for a maximum of 6 units. (Formerly PHOT 42)  
Transfer Credit: CSU

PHOT 230  
PORTRAIT PHOTOGRAPHY  3 UNITS  
Class hours: 2 lecture/4 lab  
Prerequisite: PHOT 100 or equivalent with a grade of Credit or "C" or higher.  
This is a beginning course in the theory and practice of camera techniques, posing, and lighting as applied to the field of professional portraiture. Lectures will include use of professional lab services and promoting portrait photography. (Formerly PHOT 41)  
Transfer Credit: CSU

PHOT 232  
STUDIO PROBLEMS IN PHOTOGRAPHY  3 UNITS  
Class hours: 2 lecture/4 lab  
Prerequisite: PHOT 102 or equivalent with a grade of Credit or "C" or higher.  
Corequisite: None.  
Recommendation: None.  
This course examines a variety of approaches to studio problems in photography. Concept development and execution and the studio environment, including equipment and materials, studio construction, location work, and lighting and exposure techniques, will be covered. Students will concentrate on a semester long project in a specialized area of studio work. This course may be taken for a maximum of 6 units. (Formerly PHOT 44)  
Transfer Credit: CSU

PHOT 234  
PORTFOLIO DEVELOPMENT  3 UNITS  
Class hours: 2 lecture/4 lab  
Prerequisite: PHOT 102 or equivalent with a grade of Credit or "C" or higher.  
This course is designed to address the marketing aspects of photography. Preparation of portfolios, care of original photographs, photography markets, legal aspects, and gallery exhibition are the primary course topics. (Formerly PHOT 38)  
Transfer Credit: CSU

PHOT 240  
EXPERIMENTAL PHOTOGRAPHY  3 UNITS  
Class hours: 2 lecture/4 lab  
Prerequisite: PHOT 100 or equivalent with a grade of Credit or "C" or higher.  
This class is designed to explore black and white photographic materials through a non-traditional process. Topics covered include infrared film, chemical painting, toners, hand-coloring, reticulation emulsion transfers, and others. Emphasis is placed on using process as communicative content. (Formerly PHOT 36)  
Transfer Credit: CSU

PHOT 242  
NON-SILVER PHOTOGRAPHY  3 UNITS  
Class hours: 2 lecture/4 lab  
Prerequisite: PHOT 100 or equivalent with a grade of Credit or "C" or higher.  
This course explores historical and photographic processes (printing-out processes) which utilize hand-applied emulsions and large contact negatives in the production of photographic imagery. Emphasis is placed on the use of process for communicative content. (Formerly PHOT 39)  
Transfer Credit: CSU

PHOT 250  
CONTEMPORARY PHOTOGRAPHIC EXPRESSION  3 UNITS  
Class hours: 2 lecture/4 lab  
Prerequisite: PHOT 100 or equivalent with a grade of Credit or "C" or higher.  
This course is an in-depth study of the use of visual language for contemporary photographic expression. Imagery is stressed, with process used as the tool for achieving a particular expression. Students will explore photographic genres, as well as discover the uniqueness of their own approach through the creation of a personal body of work. (Formerly PHOT 37)  
Transfer Credit: CSU; UC

PHOT 252  
PHOTOGRAPHY OF THE NATURAL ENVIRONMENT  3 UNITS  
Class hours: 2 lecture/4 lab  
Prerequisite: PHOT 102 or equivalent with a grade of Credit or "C" or higher.  
Corequisite: None.  
Recommendation: None.  
This course examines the interpretation of the natural environment through the medium of photography. Environmental issues and theories of photographic approaches to the natural world are stressed. Topics include film types, exposure techniques, appropriate equipment and care, field conditions, and printing techniques. This course may be taken for a maximum of 6 units. (Formerly PHOT 46)  
Transfer Credit: CSU

PHYSICAL EDUCATION  
(HPER/ Athletics Division)

PHYSICAL EDUCATION PRE-PROFESSIONAL THEORY

PE 100  
INTRODUCTION TO PHYSICAL EDUCATION  2 UNITS  
Class hours: 2 lecture  
Prerequisite: None.  
A survey of physical education and allied fields and their significance in the school program with emphasis on the acquisition of leadership skills and knowledge in planning, organizing, presenting and evaluating activities. Career opportunities in physical education and related fields will be surveyed. (Formerly PE 1)  
Transfer Credit: CSU; UC

PE 101  
SPORTS OFFICiating FOR MEN'S ACTIVITIES I  2 UNITS  
Class hours: 2 lecture  
Prerequisite: None.  
Theory and practice are combined in a study of the organization and technique of officiating football, basketball and other athletic activities normally conducted during the fall semester. (Formerly PE 2.1)  
Transfer Credit: CSU; UC

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Announcement of Courses

PE 102
SPORTS OFFICIATING FOR MEN'S ACTIVITIES II 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
Theory and practice are combined in a study of the organization and techniques of officiating baseball, track and field, and other athletic activities normally conducted during the spring semester. (Formerly PE 2.2)
Transfer Credit: CSU; UC

PE 103
SPORTS OFFICIATING FOR WOMEN'S ACTIVITIES I 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
This course is designed to give the student a detailed study of the techniques of officiating women's athletic activities. This course prepares the student to take the authorized N. A. G. W. S. examination (written and practical) which is necessary to obtain an official rating. Sports included are Volleyball, Basketball, Field Hockey and Flag Football. (Formerly PE 3.1)
Transfer Credit: CSU; UC

PE 104
SPORTS OFFICIATING FOR WOMEN'S ACTIVITIES II 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
This course is designed to give the student a detailed study of the techniques of officiating women's athletic activities. This course prepares the student to take the authorized N. A. G. W. S. examination (written and practical) which is necessary to obtain an official rating. Sports included are softball, soccer and speed-a-way, tennis, badminton, and track and field. (Formerly PE 3.2)
Transfer Credit: CSU; UC

PE 105
STUDENT ATHLETES IN SOCIETY 2 UNITS
Class hours: 2 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with an analysis and interpretation of issues affecting student athletes in past and present societies. Physiological, sociological, and psychological aspects of student athletes as related to sport and education will be covered. Students will plan for future career opportunities. (Formerly PE 4)
Transfer Credit: CSU

PE 106
CREATIVE MOVEMENT FOR CHILDREN 2 UNITS
Class hours: 3 hrs lecture/activity
Prerequisite: None.
This course will focus on providing the elementary school teacher with insights into the psychological, sociological, and physiological development of children in pre-school through grade six, and on learning games, activities, and rhythms appropriate for the various age groups. Attention will also be given to the organization and management of physical education classes. (Formerly PE 5)
Transfer Credit: CSU

PE 107
INTRODUCTION TO ATHLETIC TRAINING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course provides instruction in the prevention, assessment, management, and reconditioning of athletic injuries. Taping and bandaging, protective padding, and modalities used for treatment will be presented. (Formerly PE 7.1)
Transfer Credit: CSU; UC

PE 255
PROGRAMS AND PRINCIPLES OF CONDITIONING 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will provide the student with basic knowledge and principles related to exercise prescription. Students will develop the skills necessary to design and implement training programs as they relate to the components of fitness. Safeguards and effectiveness for all levels of fitness will be addressed.
Transfer Credit: CSU

PE 260
ATHLETIC INJURY ASSESSMENT AND RECONDITIONING 2 UNITS
Class hours: 2 lecture
Prerequisite: PE 107 with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course allows the student to expand upon the knowledge of the mechanism, assessment and reconditioning of athletic injuries. Emphasis is placed upon injury mechanism and assessment, the phases of healing, modalities used in the healing process, and the application of exercise and exercise equipment in the reconditioning of athletic injuries.
Transfer Credit: CSU

PE 261
ATHLETIC INJURY TAPING, BANDAGING AND IMMOBILIZATION 1 UNIT
Class hours: 0.5 lecture/1.5 lab
Prerequisite: PE 107 with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course allows the student to expand upon the knowledge and skill of management, bandaging, and taping of athletic injuries. Emphasis is placed on immobilization of acute injuries, and the techniques used for preventative bandaging and taping of athletic injuries.
Transfer Credit: CSU

PHYSICAL EDUCATION
PRE-PROFESSIONAL ACTIVITIES

PE 108
PROFESSIONAL ACTIVITIES FOR MEN'S SPORTS I 3 UNITS
Class hours: 5 hrs lecture/activity
Prerequisite: None.
Emphasis will be on the theory and practice of football and basketball. The course presents the fundamental knowledge of the sports through techniques of lecture, discussion, and practice. (Formerly PE 10.1)
Transfer Credit: CSU; UC

PE 110
PROFESSIONAL ACTIVITIES FOR MEN'S SPORTS II 3 UNITS
Class hours: 5 hrs lecture/activity
Prerequisite: None.
Emphasis will be on the theory and practice of baseball and track. The course presents the fundamental knowledge of the sports through techniques of lecture, discussion, and practice. (Formerly PE 10.2)
Transfer Credit: CSU; UC

PE 111
PROFESSIONAL ACTIVITIES FOR MEN'S SPORTS III 2 UNITS
Class hours: 4 activity
Prerequisite: None.
This course is designed to offer physical education majors experience in gymnastics and tumbling. (Formerly PE 10.3)
Transfer Credit: CSU; UC

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**Announcement of Courses**

**PE 112**  
**THEORY OF FOOTBALL**  
2 UNITS  
Class hours: 2 lecture  
Prerequisite: None.  
Corequisite: None.  
Recommendation: A basic understanding of the rules used in tackle football; enrollment in PE 210 (Intercollegiate Football).  
This course gives students an understanding of how to coach and teach the skills, principles, and philosophy of offensive and defensive football. (Formerly PE 97.1/PE 10.4).  
Transfer Credit: CSU; UC

**PE 113**  
**PROFESSIONAL ACTIVITIES FOR CO-ED SPORTS I**  
3 UNITS  
Class hours: 5 hrs lecture/activity  
Prerequisite: PE 150A or equivalent with a grade of Credit or “C” or higher.  
This course is designed to present the theory and practice of water safety and life saving techniques. It leads to American Red Cross Advanced Life Saving and Water Safety Certificate. This course is recommended for all physical education, recreation, and recreation aide majors, but is open to other interested students. (Formerly PE 12.1)  
Transfer Credit: CSU; UC

**PE 114**  
**PROFESSIONAL ACTIVITIES FOR CO-ED SPORTS II**  
2 UNITS  
Class hours: 4 activity  
Prerequisite: None.  
Instruction and practice in fundamental skills necessary for successful performance including leadership, knowledge, strategy and theory of tennis and golf. Required of all physical education, recreation and recreation aide majors. (Formerly PE 12.2)  
Transfer Credit: CSU; UC

**PE 115**  
**PROFESSIONAL ACTIVITIES FOR CO-ED DANCE FUNDAMENTALS III**  
2 UNITS  
Class hours: 4 activity  
Prerequisite: None.  
This course is designed to acquaint physical education, recreation and recreation aide majors with fundamental social and folk dances. The class provides opportunities for developing the performance skills necessary as preparation for teaching, and also covers basic teaching techniques. Required of all physical education, recreation and recreation aide majors. (Formerly PE 12.4)  
Transfer Credit: CSU; UC

**PE 116**  
**PROFESSIONAL ACTIVITIES FOR MODERN DANCE**  
3 UNITS  
Class hours: 5 hrs lecture/activity  
Prerequisite: None.  
This course is designed to give prospective teachers of physical education a comprehensive background in the theory and techniques of modern dance. (Formerly PE 12.5)  
Transfer Credit: CSU; UC

**PE 117**  
**PROFESSIONAL ACTIVITIES FOR WOMEN’S SPORTS I**  
3 UNITS  
Class hours: 5 hrs lecture/activity  
Prerequisite: None.  
The course is designed to teach the theory and practice of volleyball, basketball, field hockey, and flag football. (Formerly PE 14.1)  
Transfer Credit: CSU; UC

**PE 118**  
**PROFESSIONAL ACTIVITIES FOR WOMEN’S SPORTS II**  
3 UNITS  
Class hours: 5 hrs lecture/activity  
Prerequisite: None.  
The course is designed to teach the theory and practice of softball, soccer, speed-a-way, and track and field. (Formerly PE 14.2)  
Transfer Credit: CSU; UC

**PE 119**  
**PROFESSIONAL ACTIVITIES FOR WOMEN’S SPORTS III**  
2 UNITS  
Class hours: 4 activity  
Prerequisite: None.  
The course was designed to acquaint physical education majors with tumbling and gymnastics. It provides opportunity for developing acceptable performance as preparation for techniques of teaching. (Formerly PE 14.3)  
Transfer Credit: CSU; UC

**Physical Education Activities**

All physical education activities classes may be repeated for credit. Students are urged to participate in a variety of courses which will give them a well-rounded schedule of vigorous activity combined with life-time sports which will have carry-over value. Students may take any P.E. activity class on a credit/no credit basis. It is the responsibility of the student to apply for this sometime during the first four weeks of each semester.

**PE 125**  
**WATER SAFETY INSTRUCTOR (WSI)**  
2 UNITS  
Class hours: 2 lecture/1 lab  
Prerequisite: None.  
Corequisite: None.  
Recommendation: None.  
This course is offered with the authorization of the American Red Cross to provide students with Instructor Candidate Training (ICT), along with the Water Safety Instructor (WSI). It is a comprehensive analysis of principles of movement, organizational strategies utilized in presenting aquatic activities and advanced swimming skills. It also includes an opportunity to qualify for the American Red Cross Water Safety Instructor certification. This course may be taken for a maximum of 8 units. (Formerly PE 21.2)  
Transfer Credit: CSU; UC

**PE 130**  
**STRETCHING AND RELAXATION**  
1 UNIT  
Class hours: 0.5 lecture/1.5 lab  
Prerequisite: None.  
Corequisite: None.  
Recommendation: None.  
This course emphasizes the development of flexibility in muscles and joints to prevent injury and improve posture and body align-
Announcement of Courses

PE 131
WALKING FOR FITNESS
Class hours: 2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to meet the needs of students who want basic instruction in ways to improve their cardiovascular endurance and flexibility through various aerobic activities and stretching movements and lectures in the areas of basic nutrition, body composition, posture analysis and principles of correct exercise. This course may be taken for a maximum of 2 units. (Formerly PE 30.1)
Transfer Credit: CSU; UC

PE 132A
AEROBIC ACTIVITIES
(LOW IMPACT)
Class hours: 1 lecture/2 lab
Prerequisite: None.
Corequisite: None.
This course is designed to meet the needs of students who want practical instruction in ways to improve their cardiovascular endurance and flexibility through various aerobic activities and stretching movements and lectures in the areas of basic nutrition, body composition, posture analysis and principles of correct exercise. This course may be taken for a maximum of 4 units. (Formerly PE 33.1)
Transfer Credit: CSU; UC

PE 132B
AEROBIC ACTIVITIES II
Class hours: 1 lecture/2 hours of activity
Prerequisite: PE 132A or equivalent with a grade of Credit or "C" or higher.
This course is designed to meet the needs of students who want further practical instruction in ways to improve their cardiovascular endurance and flexibility through various aerobic activities and stretching movements and lectures in the areas of basic nutrition, body composition, posture analysis and principles of correct exercise. Higher intensity and longer duration of the activity of the aerobic section is the main difference between Aerobics I and II. This course may be taken for a maximum of 4 units. (Formerly PE 33.2)
Transfer Credit: CSU; UC

PE 133
STEP AEROBICS
Class hours: 1 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed as a contemporary workout to improve each participant's strength and cardiovascular fitness level through steady-state stepping movements that will improve health. Students will be exposed to a graduated, continuous system of rhythmic stepping at various platform heights, emphasizing strength, flexibility, and endurance. The class will include proper body alignment and mechanics, basic nutrition, injury prevention, strength training, and personal assessment. This course may be taken for a maximum of 4 units. (Formerly PE 69. B/PE 33.3)
Transfer Credit: CSU; UC

PE 134
WATER AEROBICS
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This water aerobics exercise class emphasizes development of cardiorespiratory endurance, flexibility and muscle tone. No swimming skills are required. This course may be taken for a maximum of 2 units. (Formerly PE 33.4)
Transfer Credit: CSU; UC

PE 135A
CIRCUIT WEIGHT TRAINING,
BEGINNING
Class hours: 2 activity
Prerequisite: None.
This course covers the fundamentals and techniques of circuit weight training with the use of machines, barbells, dumbbells, jump ropes, and other equipment in the development of an improved level of fitness and physical condition. This course may be taken for a maximum of 2 units. (Formerly PE 31.1)
Transfer Credit: CSU; UC

PE 135B
CIRCUIT WEIGHT TRAINING,
INTERMEDIATE/ADVANCED
Class hours: 4 activity
Prerequisite: PE 135A or equivalent with a grade of Credit or "C" or higher.
This course will consist of applied theory as well as physical conditioning. Students will use three types of exercise to reach goals: Isotonic, Isometric, and Isokinetic. Individual instruction will be given along with the discussion of strengths, weaknesses, and nutritional needs of each individual. This course may be taken for a maximum of 4 units. (Formerly PE 31.4)
Transfer Credit: CSU; UC

PE 138
YOGA
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is an introduction to Yoga based on basic yoga practices and principles. Instruction will include yoga postures, guided relaxation, and breathing practices. Benefits of yoga include increased flexibility, strength, balance, and body awareness, as well as stress reduction. This course may be taken for a maximum of 4 units. (Formerly PE 30.3)
Transfer Credit: CSU; UC

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### PE 142
**FITNESS AND WELLNESS FOR OLDER ADULTS**  2 UNITS
Class hours: 1 lecture/2 lab
Prerequisite: Medical Clearance from Physician.
This course is designed for older adults and includes an exercise program consisting of mild aerobics, stretching, weight lifting, bicycle ergometer riding, water exercises and job walking. Testing is provided to determine a physical assessment of the individual for fat content, strength, and flexibility. Students establish their own training program and participate in the above activities, based on the recommended exercise prescription. Lectures provide information on nutrition, stress management, conditioning, and diet related to the special interests, and diet needs of the aging and older adults. This course may be taken for a maximum of 4 units. (Formerly PE 30.7)
Transfer Credit: CSU; UC

### PE 143
**PERSONAL FITNESS PROGRAM**  1 UNIT
Class hours: 2 lab
Prerequisite: PE 140 or PE 141 or PE 142 or equivalent with a grade of Credit or “C” or higher.
This course is designed as an exercise program consisting of aerobics, stretching, weight training, bicycle ergometer, arm ergometer, water exercise and running activities. Testing will be provided to determine physical assessment and improvement in the areas of flexibility, strength, endurance and aerobic fitness. Each student will establish and practice his or her training program based on recommended exercises. This course may be taken for a maximum of 2 units. (Formerly PE 30.8)
Transfer Credit: CSU; UC

### PE 144L
**EXERCISE PHYSIOLOGY LABORATORY TECHNIQUES**  2 UNITS
Class hours: 1 lecture/2 lab
Prerequisite: PE 140 or PE 141 or A&P 130 or A&P 200 or A&P 201 or equivalent with a grade of Credit or “C” or higher.
This course offers individuals a background in working with various instruments used in exercise testing. Discussions will include the scientific bases for the exercise tests. (Formerly PE 69.7/PE 30.9)
Transfer Credit: CSU; UC

### PE 150A
**SWIMMING, BEGINNING**  1 UNIT
Class hours: 2 activity
Prerequisite: None.
Fundamental swimming strokes, elementary diving and water safety. This course may be taken for a maximum of 2 units. (Formerly PE 20.1)
Transfer Credit: CSU; UC

### PE 150B
**SWIMMING, INTERMEDIATE/ADVANCED**  2 UNITS
Class hours: 4 activity
Prerequisite: PE 150A or equivalent with a grade of Credit or “C” or higher.
Intensive drill in backstroke, sidestroke, breaststroke and crawl. Fundamentals of diving and water polo. This course may be taken for a maximum of 4 units. (Formerly PE 20.3)
Transfer Credit: CSU; UC

### PE 151
**WRESTLING, BEGINNING**  1 UNIT
Class hours: 2 activity
Prerequisite: None.
This course is designed to provide instruction and practice in the fundamentals of wrestling. This course may be taken for a maximum of 4 units. (Formerly PE 31.8)
Transfer Credit: CSU; UC

### PE 152
**TUMBLING AND STUNTS, BEGINNING**  1 UNIT
Class hours: 2 activity
Prerequisite: None.
Emphasis will be on beginning skills necessary for basic tumbling and stunts. Instruction will be given in safety and use of equipment and an appreciation of this activity and its various forms of competition and participation. This course may be taken for a maximum of 4 units. (Formerly PE 32.1)
Transfer Credit: CSU; UC

### PE 153A
**BACKPACKING, BEGINNING**  2 UNITS
Class hours: 1 lecture/2 lab with one three-day field trip.
Prerequisite: None.
This course provides the student with the knowledge and skills necessary for all-season, off-trail backpacking. A backpack trip of at least three days at the end of the course will be required. Student will be expected to furnish their own backpacking equipment. This course may be taken for a maximum of 4 units. (Formerly PE 40.4)
Transfer Credit: CSU; UC

### PE 153B
**BACKPACKING, ADVANCED**  2 UNITS
Class hours: 1 lecture/2 lab with two 4+4 field trips on one 9 day field trip.
Prerequisite: PE 153A or equivalent with a grade of Credit or “C” or higher.
This course is designed to provide the student with advanced skills and knowledge used in extensive all-season, cross-country backpacking. Emphasis will be placed on survival and navigational skills. Two trips of 4 1/2 days (or one 9 day trip in summer session) will be required. Students will be expected to furnish their own backpacking equipment. This course may be taken for a maximum of 4 units. (Formerly PE 40.6)
Transfer Credit: CSU; UC

### PE 154A
**BADMINTON, BEGINNING**  1 UNIT
Class hours: 2 lab
Prerequisite: None.
Emphasis will be on fundamental strokes and court techniques for singles, doubles, and mixed doubles. This course may be taken for a maximum of 2 units. (Formerly PE 40.7)
Transfer Credit: CSU; UC

### PE 154B
**BADMINTON, INTERMEDIATE/ADVANCED**  2 UNITS
Class hours: 4 lab
Prerequisite: PE 154A or equivalent with a grade of Credit or “C” or higher.
This course is designed for badminton players wishing to improve skills and techniques. Emphasis will be on improving form and court strategy in offensive and defensive play. Intraclass competition will be held. This course may be taken for a maximum of 4 units. (Formerly PE 40.9)
Transfer Credit: CSU; UC

### PE 155A
**BOWLING, BEGINNING**  1 UNIT
Class hours: 2 activity
Prerequisite: None.
The fundamental theory, techniques, rules, etiquette and scoring of bowling will be emphasized. This course may be taken for a maximum of 2 units. (Formerly PE 40.13)
Transfer Credit: CSU; UC
Announcement of Courses

PE 155B
BOWLING INTERMEDIATE/ADVANCED 1 UNIT
Class hours: 2 activity
Prerequisite: PE 155A or equivalent with a grade of Credit or "C" or higher.
This course is designed to help the student improve their skill in bowling by correction of individual faults, advanced lane adjustment techniques and opportunity for league competition in the class. Additional areas of knowledge will include league organization and psychology of competition. This course may be taken for a maximum of 4 units. (Formerly PE 40.15)
Transfer Credit: CSU; UC

PE 156A
GOLF, BEGINNING 1 UNIT
Class hours: 2 activity
Prerequisite: None.
This course is designed to teach fundamental techniques, basic rules, and proper course etiquette of the game of golf. This course may be taken for a maximum of 2 units. (Formerly PE 40.16)
Transfer Credit: CSU; UC

PE 156B
GOLF, INTERMEDIATE/ADVANCED 2 UNITS
Class hours: 4 activity
Prerequisite: PE 156A or equivalent with a grade of Credit or "C" or higher.
This course is designed to present advanced techniques, rules, and etiquette of the game of golf. This course may be taken for a maximum of 4 units. (Formerly PE 40.18)
Transfer Credit: CSU; UC

PE 156C
GOLF: ADVANCED STROKE DEVELOPMENT AND COURSE PLAY 2 UNITS
Class hours: 4 lab
Prerequisite: None.
Corequisite: None.
Recommendation: PE 156A or PE 156B or equivalent with a grade of Credit or "C" or higher.
This course provides group and individualized instruction to develop and improve the more technical and advanced golf strokes. Specialized strokes include those used in sand traps, side hill and down hill lies, special consideration shots to use off the tee, and advanced putting techniques. Golf playing strategy for use on the course will be presented with emphasis on specific words and course positions in stroke play. PGA rules and etiquette will be emphasized. Students will play competitive golf in class and outside tournaments. This course may be taken for a maximum of 4 units. (Formerly PE 40.17)
Transfer Credit: CSU; UC

PE 157
HANDBALL, BEGINNING 1 UNIT
Class hours: 2 activity
Prerequisite: None.
The fundamental techniques and rules of handball will be emphasized. Games of singles, doubles, and cut-throat will be played. Both indoor and outdoor courts will be utilized. This course may be taken for a maximum of 4 units. (Formerly PE 40.19)
Transfer Credit: CSU; UC

PE 158A
RAQUETBALL, BEGINNING 1 UNIT
Class hours: 2 activity
Prerequisite: None.
The emphasis will be on fundamental strokes, techniques of playing, rules and strategy of racquetball for doubles, singles, and "cut-throat" play. This course may be taken for a maximum of 2 units. (Formerly PE 40.25)
Transfer Credit: CSU; UC

PE 158B
RAQUETBALL, INTERMEDIATE/ADVANCED 2 UNITS
Class hours: 4 activity
Prerequisite: PE 158A or equivalent with a grade of Credit or "C" or higher.
Fundamental techniques and rules of racquetball will be reviewed with major emphasis on strategies and offensive and defensive deployments in singles and doubles. This course may be taken for a maximum of 4 units. (Formerly PE 40.27)
Transfer Credit: CSU; UC

PE 159A
TENNIS, BEGINNING 1 UNIT
Class hours: 2 activity
Prerequisite: None.
Fundamental stroke and court technique for singles and doubles. This course may be taken for a maximum of 2 units. (Formerly PE 40.34)
Transfer Credit: CSU; UC

PE 159B
TENNIS, INTERMEDIATE/ADVANCED 2 UNITS
Class hours: 4 activity
Prerequisite: PE 159A or equivalent with a grade of Credit or "C" or higher.
This course is designed for those players wishing to increase skills in tennis. An emphasis will be on improvement of form, strokes, and serves. Intra-class competition will be held. This course may be taken for a maximum of 4 units. (Formerly PE 40.36)
Transfer Credit: CSU; UC

PE 160
SELF DEFENSE FOR WOMEN 1 UNIT
Class hours: 2 activity
Prerequisite: None.
A course designed to provide women with specific attitudes, knowledge and skills useful in self defense. This course may be taken for a maximum of 4 units. (Formerly PE 60.4)
Transfer Credit: CSU; UC

PE 170
WATER POLO 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: Ability to swim 200 yards under 5 minutes.
During this course, the student will learn the skills of water polo, which include physical skill development, conditioning, game strategy and terminology. This course may be taken for a maximum of 8 units. (Formerly PE 20.7)
Transfer Credit: CSU; UC

PE 171A
SOFTBALL 1 UNIT
Class hours: 2 activity
Prerequisite: None.
This course is designed to provide students with the knowledge and practical skills necessary to effectively participate in softball. This course may be taken for a maximum of 2 units. (Formerly PE 40.32)
Transfer Credit: CSU; UC

PE 171B
SOFTBALL, INTERMEDIATE/ADVANCED 2 UNITS
Class hours: 4 activity
Prerequisite: PE 171A or equivalent with a grade of Credit or "C" or higher.
This course is designed to provide students with advanced knowledge and practical skills necessary to effectively participate in FAST PITCH SOFTBALL. Emphasis will be placed on skills which will prepare the students to independently analyze their own performance. This course may be taken for a maximum of 4 units. (Formerly PE 40.33)
Transfer Credit: CSU; UC

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
### Announcement of Courses

**PE 171C**  
**SLOW-PITCH SOFTBALL**  
1 UNIT  
Class hours: 2 activity  
Prerequisite: None.  
This course is designed to provide students with the knowledge and practical skills necessary to effectively participate in slow-pitch softball. In slow-pitch softball the ball is thrown slowly, traveling in an arc. This course may be taken for a maximum of 2 units. (Formerly PE 40.31)  
Transfer Credit: CSU; UC

**PE 172A**  
**VOLLEYBALL, BEGINNING**  
1 UNIT  
Class hours: 2 activity  
Prerequisite: None.  
This course is designed to develop the students’ understanding of the basic fundamentals of volleyball by instruction and practice in setting, passing, spiking and team play. Six-player co-ed teams will play in various types of tournaments. This course may be taken for a maximum of 2 units. (Formerly PE 40.37)  
Transfer Credit: CSU; UC

**PE 172B**  
**VOLLEYBALL, INTERMEDIATE/ADVANCED**  
2 UNITS  
Class hours: 4 activity  
Prerequisite: PE 172A or equivalent with a grade of Credit or “C” or higher.  
A course designed for students wishing to improve form and court strategies in volleyball. Intra-class competition will be held. This course may be taken for a maximum of 4 units. (Formerly PE 40.39)  
Transfer Credit: CSU; UC

**PE 175A**  
**BASEBALL, BEGINNING**  
1 UNIT  
Class hours: 2 activity  
Prerequisite: None.  
This course is designed to present the fundamental techniques, rules and etiquette of the sport of baseball. This course may be taken for a maximum of 2 units. (Formerly PE 50.1)  
Transfer Credit: CSU; UC

**PE 175B**  
**BASEBALL, INTERMEDIATE/ADVANCED**  
2 UNITS  
Class hours: 4 activity  
Prerequisite: PE 175A or equivalent with a grade of Credit or “C” or higher.  
The course is designed to improve individual techniques for baseball players. Team competitive play situations will be provided in order to increase students’ skills, knowledge, and strategy. This course may be taken for a maximum of 2 units. (Formerly PE 50.13)  
Transfer Credit: CSU; UC

**PE 176A**  
**BASKETBALL**  
1 UNIT  
Class hours: 2 activity  
Prerequisite: None.  
This course is designed to teach individual techniques of offense and defense in basketball. It is recommended for physical education majors and those interested in varsity competition. This course may be taken for a maximum of 8 units. (Formerly PE 50.10)  
Transfer Credit: CSU; UC

**PE 176B**  
**BASKETBALL, ADVANCED**  
2 UNITS  
Class hours: 4 activity  
Prerequisite: PE 176A with a grade of Credit or “C” or higher.  
The course is designed to improve individual techniques for basketball players. Team competitive play situations will be provided in order to increase students’ skills, knowledge, and strategy. This course may be taken for a maximum of 4 units. (Formerly PE 50.6)  
Transfer Credit: CSU; UC

**PE 177**  
**FLAG FOOTBALL**  
1 UNIT  
Class hours: 0.5 lecture/1.5 lab  
Prerequisite: None.  
This course is designed to teach the fundamental theory and skills involved in the game of flag football. This course may be taken for a maximum of 4 units. (Formerly PE 50.10)  
Transfer Credit: CSU; UC

**PE 178**  
**FOOTBALL, INTERMEDIATE/ADVANCED**  
2 UNITS  
Class hours: 4 activity  
Prerequisite: PE 177 or equivalent with a grade of Credit or “C” or higher.  
The course is designed to teach individual techniques of offense and defense in football. It is recommended for physical education majors and those interested in varsity competition. This course may be taken for a maximum of 8 units. (Formerly PE 50.12)  
Transfer Credit: CSU; UC

**PE 179A**  
**SOCCER, BEGINNING**  
1 UNIT  
Class hours: 2 activity  
Prerequisite: None.  
This course is designed to introduce theory and practice in the fundamental skills and techniques of soccer. Proper conditioning will be stressed. This course may be taken for a maximum of 2 units. (Formerly PE 50.13)  
Transfer Credit: CSU; UC

**PE 179B**  
**SOCCER, INTERMEDIATE/ADVANCED**  
2 UNITS  
Class hours: 4 activity  
Prerequisite: PE 179A or equivalent with a grade of Credit or “C” or higher.  
Must demonstrate some knowledge of basic soccer skills. This course is designed to deal with advanced techniques, skills, and tactics for soccer players. It is recommended for those interested in varsity competition. This course may be taken for a maximum of 4 units. (Formerly PE 50.15)  
Transfer Credit: CSU; UC

**PE 180**  
**INTRODUCTION TO DANCE MOVEMENT**  
3 UNITS  
Class hours: 2 lecture/3 lab  
Prerequisite: None.  
Students will study dance movement in three basic styles: ballet, modern and jazz. For each form, proper body alignment, stretching and styling techniques will be presented in a dance class format. This includes warm-ups, progressions and dance combinations. This course may be taken for a maximum of 12 units. (Formerly PE 45)  
Transfer Credit: CSU; UC

**PE 181**  
**INTRODUCTION TO DANCE CULTURES OF THE WORLD**  
2 UNITS  
Class hours: 4 activity  
Prerequisite: None.  
Students will study dance styles representative of different cultures and nationalities. Introduction to many different dance forms will be explored, taking into consideration historical background, related folklore and how dance differs from culture to culture. This course may be taken for a maximum of 8 units. (Formerly PE 45.1)  
Transfer Credit: CSU; UC

**PE 182A**  
**DANCE, MODERN, BEGINNING**  
2 UNITS  
Class hours: 4 activity  
Prerequisite: None.  
Students will study the expressive body movements in a creative art form. Emphasis will be on developing modern dance skills and technique as well as conditioning the body by improving posture, flexibility, strength, and coordination. This course may be taken for a maximum of 8 units. (Formerly PE 45.10)  
Transfer Credit: CSU; UC

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PE 182B
DANCE, MODERN, INTERMEDIATE 2 UNITS
Class hours: 4 activity
Prerequisite: PE 182A or equivalent with a grade of Credit or "C" or higher.
Students will study intermediate level modern skills and will utilize basic movement and music principles to choreograph dance sequences. This course may be taken for a maximum of 8 units. (Formerly PE 45.13)
Transfer Credit: CSU; UC

PE 183
DANCE PRODUCTION 2 UNITS
Class hours: 4 activity
Prerequisite: None.
Students will study the elements of dance production such as choreography, lighting, design, costume design, music, and concert publicity. Students will choreograph and perform in the concert or work backstage as part of the technical crew. This course may be taken for a maximum of 8 units. (Formerly PE 45.13)
Transfer Credit: CSU; UC

PE 184
CHOREOGRAPHY 2 UNITS
Class hours: 4 lab
Prerequisite: None.
Students will study the elements of dance composition as well as learn about well-known choreographers and their work. The study will include the selection of movement appropriate to the meaning of a dance, the arrangements of movement in space, and the overall design of the dance and its staging. This course may be taken for a maximum of 4 units. (Formerly PE 45.14)
Transfer Credit: CSU; UC

PE 185
PARTNERING FOR DANCE 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
Students will study partner dancing involving groups of two or more dancers. It will serve as an introduction to the art of partnering in modern, jazz, and classical choreography. Not limited to male/female partnering, students will study choreography involving any body contact or shifting of weight from one individual to another. This course may be taken for a maximum of 4 units. (Formerly PE 45.15)
Transfer Credit: CSU; UC

PE 186A
BEGINNING BALLET 2 UNITS
Class hours: 4 activity
Prerequisite: None.
Students will study basics of ballet terminology and technique. Emphasis is on body alignment, coordination and musicality. This course may be taken for a maximum of 8 units. (Formerly PE 45.17)
Transfer Credit: CSU; UC

PE 186B
INTERMEDIATE BALLET 2 UNITS
Class hours: 4 activity
Prerequisite: PE 186A or equivalent with a grade of Credit or "C" or higher.
Students will study the advanced terminology and technique of classical ballet. This course may be taken for a maximum of 8 units. (Formerly PE 45.18)
Transfer Credit: CSU; UC

PE 187
DANCE REPERTORY 2 UNITS
Class hours: 4 lab
Prerequisite: None.
Students will study a repertory of dances in the styles of ballet, modern, jazz, ethnic, and dance theatre. The advanced student will participate in performances on campus as well as in the community. This course may be taken for a maximum of 8 units. (Formerly PE 46.4)
Transfer Credit: CSU; UC

PE 188
DANCE PERFORMANCE 2 UNITS
Class hours: 4 lab/rehearsal
Prerequisite: None.
Students will study the aspects of dance performance through participation in the semester dance concert. Emphasis is placed on improving classroom dance technique and elevating skills to a performance level. This course may be taken for a maximum of 8 units. (Formerly PE 46.1)
Transfer Credit: CSU; UC

PE 189
DANCE WORKSHOP 2 UNITS
Class hours: 4 lab
Prerequisite: None.
Students will study the technical dance skills in ballet, jazz and modern dance. The course includes exploration of the elements of composition and affords the opportunity to experiment with improvisation and set choreography. Students will work on individual and group projects and participate in the faculty dance concert. This course may be taken for a maximum of 8 units. (Formerly PE 50.2)
Transfer Credit: CSU; UC

PE 190
DANCE NOTATION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Students will study basic dance notation with in-depth work in elementary Labanotation and an introduction to Benesh and Kinesegraphy notation systems. These systems are taught by using graphs, musical scores, and stick figures or drawings. (Formerly PE 46.3)
Transfer Credit: CSU; UC

PE 191
HISTORY OF DANCE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Students will study dance history from ancient to modern times, beginning with tribal, ethnic and folk dance and on through contemporary ballet, modern and jazz dance. (Formerly PE 46.4)
Transfer Credit: CSU; UC

PE 192
DANCE AND DIGITAL TECHNOLOGY 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
The student will study how technology has historically and traditionally been used in the field of dance. Emphasis will be placed on the various technologies that currently impact the art of dance. The majority of topics in the course will be related to the art of dance.
Transfer Credit: CSU

PE 201
BASEBALL OFF-SEASON CONDITIONING 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to provide the physical training and preparation to become a competitive baseball athlete. Muscular balance for position specific needs is attained through principles ranging from interval training to resistance training. This course will improve strength, flexibility, endurance, and agility. This course may be taken for a maximum of 8 units. (Formerly PE 46.2)
Transfer Credit: CSU; UC

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Announcement of Courses

PE 207  CROSS COUNTRY CONDITIONING  1 UNIT
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course presents techniques for cross country preseason conditioning and training. This course may be taken for a maximum of 4 units. (Formerly PE 31.6)
Transfer Credit: CSU; UC

PE 211  FOOTBALL CONDITIONING (OLYMPIC WEIGHTS - POWER LIFTING)  2 UNITS
Class hours: 1 lecture/3 lab
Corequisite: None.
This course is designed to prepare students for athletic competition in football. It is an intensive power training program based on the overload principle. This course uses olympic weights in a structured program that primarily builds power. It does not use isometric or cardio-vascular training. This course may be taken for a maximum of 8 units. (Formerly PE 41.1)
Transfer Credit: CSU; UC

PE 212  FOOTBALL TRAINING AND TECHNIQUES  2 UNITS
Class hours: 4 Lab
Prerequisite: None.
Corequisite: PE 178.
This course will consist of in-season conditioning, theory of play, opponent evaluation, and goal setting for football. The student will be instructed in each of the above to develop a successful physical and mental approach to weekly contests. This course may be taken for a maximum of 4 units. (Formerly PE 50.11)
Transfer Credit: CSU; UC

PE 222  SOFTBALL PRE-SEASON CONDITIONING  1 UNIT
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
The training and preparation to become a competitive softball athlete involves more than the learning of basic skills. This course will include aerobic conditioning, strength and flexibility conditioning and agility skills. This course may be taken for a maximum of 4 units. (Formerly PE 40.42)
Transfer Credit: CSU; UC

PE 228  (Not degree applicable) TENNIS CONDITIONING  1 UNIT
Class hours: 0.5 lecture/1.5 lab
Corequisite: None.
This course will provide training and drills necessary to develop skills and knowledge to compete on a college tennis team. Physical conditioning, aerobics, strength and agility drills will be used. This course may be taken for a maximum of 4 units. (Formerly PE 40.41)

PE 234  TRACK AND FIELD CONDITIONING  1 UNIT
Class hours: 0.5 lecture/1.5 lab
Prerequisite: None.
The techniques and training of track and field events are combined in a preseason conditioning program during the fall of the year. This course may be taken for a maximum of 4 units. (Formerly PE 31.5)
Transfer Credit: CSU; UC

PE 236  VOLLEYBALL PRE-SEASON CONDITIONING  1 UNIT
Class hours: 0.5 lecture/1.5 lab
Corequisite: None.
This course is designed to cover the following three areas: 1) analysis and training of volleyball skills including specialized positions, 2) analysis of various team offensive and defensive systems, and 3) physical conditioning including jump training, strength training and aerobic conditioning. This course may be taken for a maximum of 4 units. (Formerly PE 40.40)
Transfer Credit: CSU; UC

PE 137  SONG UNIT  2 UNITS
Class hours: 6 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course is designed to develop, improve and implement the skills necessary to be an effective songleader at the community college level. This course may be taken for a maximum of 8 units. (Formerly PE 92.1)
Transfer Credit: CSU

PE 200  BASEBALL  3 UNITS
Class hours: 10 hrs per week - Daily practice
(Spring only)
Prerequisite: None.
Training for intercollegiate competition in baseball. Skill techniques, good sportsmanship, team play, and strategy will be emphasized. This course may be taken for a maximum of 12 units. (Formerly PE 72)
Transfer Credit: CSU; UC

PE 202  BASKETBALL, MEN  3 UNITS
Class hours: 10 hrs per week - Daily practice
(Fall only)
Prerequisite: None.
Training for intercollegiate competition in basketball. This course may be taken for a maximum of 12 units. (Formerly PE 73.1)
Transfer Credit: CSU; UC

PE 204  BASKETBALL, WOMEN  3 UNITS
Class hours: 10 hrs per week - Daily practice
(Fall only)
Prerequisite: None.
This course will include training for intercollegiate competition in women's basketball. It includes daily practice of two hours plus an intercollegiate game schedule. Conditioning for competition will be stressed. This course may be taken for a maximum of 12 units. (Formerly PE 73.2)
Transfer Credit: CSU; UC

PE 206  CROSS COUNTRY, MEN  3 UNITS
Class hours: 10 hrs per week - Daily practice
(Fall only)
Prerequisite: None.
This course is designed to develop the student for intercollegiate competition in cross country running. Proper warm-up exercises and conditioning will be emphasized. This course may be taken for a maximum of 12 units. (Formerly PE 74.1)
Transfer Credit: CSU; UC

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PE 208  
CROSS COUNTRY, WOMEN  3 UNITS  
Class hours: 10 hrs per week -  
Daily practice  (Fall only)  
Prerequisite: None.  
This course is designed to provide training for intercollegiate competition in cross country. This course may be taken for a maximum of 12 units. (Formerly PE 74.2)  
Transfer Credit: CSU; UC  

PE 210  
FOOTBALL, MEN  3 UNITS  
Class hours: 10 hrs per week -  
Daily practice  (Fall only)  
Prerequisite: None.  
This course is designed to provide training for intercollegiate competition in football. Individual skill techniques, good sportsmanship, team play, and strategy will be emphasized. This course may be taken for a maximum of 12 units. (Formerly PE 75)  
Transfer Credit: CSU; UC  

PE 213  
INTERCOLLEGIATE GOLF  3 UNITS  
Class hours: 10 hours activity -  
Daily Practice  (Spring only)  
Prerequisite: None.  
This class prepares students for intercollegiate competition in golf and gives them an opportunity to participate in this competition. This course may be taken for a maximum of 12 units. (Formerly PE 76)  
Transfer Credit: CSU; UC  

PE 217  
SOCCER, MEN  3 UNITS  
Class hours: 10 lab  
Prerequisite: None.  
Corequisite: None.  
Recommendation: None.  
Training for intercollegiate competition in soccer. This course may be taken for a maximum of 12 units. (Formerly PE 80.1)  
Transfer Credit: CSU; UC  

PE 219  
SOCCER, WOMEN  3 UNITS  
Class hours: 10 lab  
Prerequisite: None.  
Corequisite: None.  
Recommendation: None.  
Training for intercollegiate competition in soccer. This course may be taken for a maximum of 12 units. (Formerly PE 80.2)  
Transfer Credit: CSU; UC  

PE 221  
SOFTBALL, WOMEN  3 UNITS  
Class hours: 10 hrs per week -  
Daily practice  (Spring only)  
Prerequisite: None.  
Training for intercollegiate competition in women's softball. This course may be taken for a maximum of 12 units. (Formerly PE 81)  
Transfer Credit: CSU; UC  

PE 223  
SWIMMING, MEN  3 UNITS  
Class hours: 10 hrs per week -  
Daily practice  (Spring only)  
Prerequisite: None.  
Training for intercollegiate competition in swimming. This course may be taken for a maximum of 12 units. (Formerly PE 82.1)  
Transfer Credit: CSU; UC  

PE 225  
SWIMMING, WOMEN  3 UNITS  
Class hours: 10 hrs per week -  
Daily practice  (Spring only)  
Prerequisite: None.  
This course is designed to provide training for women in intercollegiate competitive swimming. Emphasis will be on conditioning and stroke analysis. This course may be taken for a maximum of 12 units. (Formerly PE 82.2)  
Transfer Credit: CSU; UC  

PE 227  
TENNIS, MEN  3 UNITS  
Class hours: 10 hrs per week -  
Daily practice  (Spring only)  
Prerequisite: None.  
This course is designed to provide training for intercollegiate competition in men's tennis. Conditioning, skills, techniques, court strategy, and rules of play will be emphasized. This course may be taken for a maximum of 12 units. (Formerly PE 83.1)  
Transfer Credit: CSU; UC  

PE 229  
TENNIS, WOMEN  3 UNITS  
Class hours: 10 hrs per week -  
Daily practice  (Spring only)  
Prerequisite: None.  
This course will prepare students for competition in women's tennis. Emphasis will be on conditioning and learning competitive strategy and techniques. This course may be taken for a maximum of 12 units. (Formerly PE 83.2)  
Transfer Credit: CSU; UC  

PE 231  
TRACK AND FIELD, MEN  3 UNITS  
Class hours: 10 hrs per week -  
Daily practice  (Spring only)  
Prerequisite: None.  
This course is designed to develop the student for intercollegiate competition in track and field events. Individual techniques and skills for different events will be emphasized. Proper warm-up exercises for different events will be stressed. This course may be taken for a maximum of 12 units. (Formerly PE 84.1)  
Transfer Credit: CSU; UC  

PE 233  
TRACK AND FIELD, WOMEN  3 UNITS  
Class hours: 10 hrs per week -  
Daily practice  (Spring only)  
Prerequisite: None.  
This course is designed to develop the student for intercollegiate competition in Track and Field events. Individual techniques and skills for different events will be emphasized. Proper warm-up exercises for different events will be stressed. This course may be taken for a maximum of 12 units. (Formerly PE 84.2)  
Transfer Credit: CSU; UC  

PE 235  
VOLLEYBALL, WOMEN  3 UNITS  
Class hours: 10 hrs per week -  
Daily Practice  (Fall only)  
Prerequisite: None.  
This course is designed to provide training for intercollegiate competition in women's volleyball. It involves daily practice of two hours plus an intercollegiate match schedule. Conditioning for tournament play will be stressed. This course may be taken for a maximum of 12 units. (Formerly PE 85.2)  
Transfer Credit: CSU; UC  

PE 239  
WATER POLO - MEN  3 UNITS  
Class hours: 10 hrs per week -  
Daily practice  (Fall only)  
Prerequisite: None.  
Training for intercollegiate competition in water polo. This course may be taken for a maximum of 12 units. (Formerly PE 86)  
Transfer Credit: CSU; UC  

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Announcement of Courses

PE 241  
WATER POLO - WOMEN 3 UNITS  
Class hours: 10 lab  
Prerequisite: None.  
Corequisite: None.  
Recommendation: None.  
Training for intercollegiate competition in water polo. This course may be taken for a maximum of 12 units. (Formerly PE 86.1)  
Transfer Credit: CSU; UC

PE 243  
WRESTLING 3 UNITS  
Class hours: 10 hrs per week - Daily practice  
(Fall only)  
Prerequisite: None.  
This course is designed to provide training for intercollegiate competition in wrestling. Individual skills, proper conditioning, and warm-up exercises will be emphasized. This course may be taken for a maximum of 12 units. (Formerly PE 87)  
Transfer Credit: CSU; UC

SPECIAL PHYSICAL EDUCATION ACTIVITIES

PE 120  
SEDENTARY ACTIVITIES FOR THE DISABLED 1 UNIT  
Class hours: 2 lab  
Prerequisite: None.  
This course is designed for the student who is not able to participate in virtually any physical activity course due to a disability. An individualized sedentary activity program will be tailored to the physical abilities and disabilities of the student. This course may be taken for a maximum of 4 units. (Formerly PE 95.1)  
Transfer Credit: CSU; UC

PE 121  
AEROBIC ACTIVITIES FOR THE DISABLED 1 UNIT  
Class hours: 2 lab  
Prerequisite: None.  
This course is designed to develop the general fitness level for the disabled students who may not be placed in a regular activity course. This course may be taken for a maximum of 4 units. (Formerly PE 95.2)  
Transfer Credit: CSU; UC

PE 122  
CIRCUIT WEIGHT TRAINING FOR THE DISABLED 1 UNIT  
Class hours: 2 lab  
Prerequisite: None.  
This course is designed for the student who is not able to participate in the standard circuit weight training program due to a disability. An individualized weight training program will be tailored to the physical abilities and disabilities of the student. This course may be taken for a maximum of 4 units. (Formerly PE 95.3)  
Transfer Credit: CSU; UC

PE 123  
SWIMMING FOR THE DISABLED 1 UNIT  
Class hours: 2 lab  
Prerequisite: None.  
This course is designed for the student who is unable to participate in a regular swimming course due to a disability. Improvement in basic swimming and water safety skills along with other pool activities such as hydroexercises and mobility activities will be included. This course may be taken for a maximum of 4 units. (Formerly PE 95.4)  
Transfer Credit: CSU; UC

PS 100  
PHYSICAL SCIENCE OF MODERN TECHNOLOGY 3 UNITS  
Class hours: 3 lecture  
Prerequisite: MATH 40 or equivalent with a grade of Credit or “C” or higher or satisfactory completion of the Math Placement Process.  
This is a lecture/demonstration course especially designed to develop an understanding of basic science facts and concepts for non-science majors. Study of the sciences that make our technological world possible will be stressed. (Formerly PS 20)  
Transfer Credit: CSU; UC

PTA 110  
INTRODUCTION TO PHYSICAL THERAPY 4 UNITS  
Class hours: 3 lecture, 3 lab  
(Fall only)  
Prerequisite: A&P 130 or equivalent with a grade of Credit or “C” or higher; acceptance into the Physical Therapist Assistant Program.  
This course will introduce the student to the history and ethics of physical therapy as they relate to the health care system; the development of the team approach and the philosophy of rehabilitation; the use of treatment modalities; terminology and measurement of joint motion; body mechanics and proper handling of patients; vital signs and their relationship to treatment programs. (Formerly PTA 10)  
Transfer Credit: CSU

PTA 120  
KINESIOLOGY 4 UNITS  
Class hours: 3 lecture, 3 lab  
(Fall only)  
Prerequisite: A&P 130 or equivalent with a grade of Credit or “C” or higher.  
Corequisite: PTA 110.  
This course is the study of biomechanical principles of human movement and locomotion including specific kinesiological functions of muscles and muscle groups, characteristics of normal posture and ambulation, and an introduction to the clinical manifestations of muscle dysfunction. Laboratory hours will be used for goniometry, gait observation, muscle action application, and practice. (Formerly PTA 20)  
Transfer Credit: CSU

PTA 125  
PATHOLOGY 3 UNITS  
Class hours: 3 lecture  
(Spring only)  
Prerequisite: PTA 110 or equivalent with a grade of Credit or “C” or higher; acceptance into the Physical Therapist Assistant Program.  
This course will include introduction to and instruction in observation of common pathological conditions. Emphasis will be placed on the following systems: musculoskeletal, circulatory, respiratory, gastrointestinal, and genitourinary. (Formerly PTA 25)  
Transfer Credit: CSU

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
PTA 126
CLINICAL PRACTICUM I 4 UNITS
Class hours: 221 variable semester lab hours
Prerequisite: None.
Corequisite: PTA 125.
This course is designed to give the student an initial exposure to physical therapy treatment. Students will practice application of heat and cold modalities, gait and transfer training and chart review under the direction of the physical therapist clinical instructor. The laboratory experience involves training in one or more physical therapy settings designated by the instructor. Uniforms are required. This course is offered on a credit/no credit basis only. (Formerly PTA 25.10)
Transfer Credit: CSU

PTA 128
PHYSICAL THERAPY ASPECTS OF GROWTH, DEVELOPMENT AND AGING 3 UNITS
Class hours: 3 lecture.
Prerequisite: Acceptance to the Physical Therapist Assistant program and A&P 130 or equivalent with a grade of Credit or "C" or higher.
This course will introduce the student to concepts and physical therapy treatment principles applied to the developmental process from gestation through aging. Emphasis will be placed on neurodevelopmental techniques used for abnormal development and for patients with neurologic or musculoskeletal disorders. (Formerly PTA 28)
Transfer Credit: CSU

PTA 230
THERAPEUTIC EXERCISE 4 UNITS
Class hours: 3 lecture/3 lab (Fall only)
Prerequisite: PTA 125 or equivalent with a grade of Credit or "C" or higher.
This course is for second year physical therapist assistant majors. Therapeutic exercise introduces the student to the use of exercise as a preventive and treatment mechanism for pathological conditions which influence strength, endurance and flexibility of the human body. Emphasis is placed upon design and application of exercise, developmental sequence of exercise, types of exercise, and the use of exercise equipment. Instruction includes the body's physiological response to exercise. (Formerly PTA 30)
Transfer Credit: CSU

PTA 233
PROSTHETICS AND ORTHOTICS FOR ALLIED HEALTH PROFESSIONALS 2 UNITS
Class hours: 2 lecture (Fall only)
Prerequisite: A&P 130 or equivalent with a grade of Credit or "C" or higher.
This course is an introduction to the application of Prosthetics and Orthotic devices in the rehabilitation process of disabled persons. Included in the course is a survey of commonly used devices, principles of fitting and alignment, criteria for selection of various components, instruction in donning, removing, and maintenance of prostheses and orthoses, patient education in use of devices, and development of skill in fabrication of plaster positioning splints for upper and lower extremities. (Formerly PTA 33)
Transfer Credit: CSU

PTA 235
NEUROLOGY 3 UNITS
Class hours: 3 lecture (Spring only)
Prerequisite: PTA 120 or equivalent with a grade of Credit or "C" or higher.
This course is designed to increase the student's knowledge in the anatomy and physiology of the nervous system. Information regarding the central, peripheral and autonomic systems is provided. Emphasis will be placed on the clinical manifestations of disease or injury to the nervous system as it relates to clinical problems encountered in physical therapy. (Formerly PTA 35)
Transfer Credit: CSU

PTA 236
CLINICAL PRACTICUM II 4 UNITS
Class hours: 221 variable semester lab hours
Prerequisite: PTA 126 or equivalent with a grade of Credit or "C" or higher.
Corequisite: PTA 230.
This course is designed to teach the student the necessary treatment skills for physical therapy patient care. These skills will include active, passive and resistive exercise programs, as well as continued practice in heat and cold modalities application, gait and transfer training. Students will also learn fundamental procedures for clinical education from direct teaching through evaluation of learning. Laboratory experience involves training in one or more physical therapy settings designated by the instructor. Student uniforms are required. This course is offered on a credit/no credit basis only. (Formerly PTA 36.10)
Transfer Credit: CSU

PTA 240
ACTIVITIES OF DAILY LIVING 2 UNITS
Class hours: 2 lecture
Prerequisite: PTA 230 and PTA 236 or equivalent with grades of Credit or "C" or higher.
Corequisite: PTA 246.
This course will present instruction in the functional rehabilitation of the disabled. Emphasis will be on understanding and utilization of the physical therapy evaluation for implementation of treatment programs. This course will present clinical instruction activities of daily living training techniques, wheelchair fitting, Jobst measurement and professional presentations. (Formerly PTA 40)
Transfer Credit: CSU

PTA 245
ADVANCED MODALITIES 3 UNITS
Class hours: 2 lecture/3 lab (Spring only)
Prerequisite: PTA 235 or equivalent with a grade of Credit or "C" or higher.
This course is a study of specific advanced physical therapy procedures which are employed in the physical therapy clinic and which require greater expertise in their application. (Formerly PTA 45)
Transfer Credit: CSU

PTA 246
CLINICAL AFFILIATION 4 UNITS
Class hours: 13 lab (17 wks) (Spring only)
Prerequisite: PTA 230 and PTA 236 or equivalent with grades of Credit or "C" or higher.
Corequisite: PTA 240.
This course will provide supervised instruction in activities of daily living training techniques; wheelchair fitting; types of orthotic and prosthetic devices and their proper application; and splinting and bandaging procedures in selected clinical facilities. Experiences will be in acute rehabilitation or out-patient physical therapy settings. Student uniforms are required. This course is offered on a credit/no credit basis only. (Formerly PTA 40.10)
Transfer Credit: CSU

PHYSICS
(Science/ Engineering/ Math Division)

PHYS 50
PRINCIPLES OF TECHNOLOGY 3 UNITS
Class hours: 2 lecture/2 lab/1 hr. lab arr.
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the Math Placement Process or completion of All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.

271
MATH 40 or MATH 42 or equivalent with a grade of Credit or "C" or higher.
This is an introductory course in principles of physics and its applications in a technological world. It will include applications of physical, mechanical, fluid, electrical and thermal systems. The course includes integrated labwork. (This course is not open to students with credit in PHYS 100 or higher.) (Formerly PHYS 25)

PHYS 100
ELEMENTARY PHYSICS 4 UNITS
Class hours: 3 lecture/1 quiz/2 lab
Prerequisite: MATH 140 or equivalent with a grade of Credit or "C" or higher.
This course is a general survey of the basic principles of physics. It includes mechanics, heat, sound, electricity and magnetism, light, and modern physics with emphasis on mechanics. It is designed primarily as a prerequisite to courses in Engineering Physics. (Formerly PHYS 11)
Transfer Credit: CSU; UC

PHYS 101 (CAN PHYS SEQ A)(CAN PHYS 2)
GENERAL PHYSICS 4 UNITS
Class hours: 3 lecture/1 quiz/2 lab
Prerequisite: MATH 140 or equivalent with a grade of Credit or "C" or higher.
This course is designed to give students an understanding and appreciation of the basic principles governing the everyday happenings in the physical environment. The subjects covered are mechanics, heat and sound. (Formerly PHYS 2.1)
Transfer Credit: CSU; UC

PHYS 102 (CAN PHYS SEQ A)(CAN PHYS 4)
GENERAL PHYSICS 4 UNITS
Class hours: 3 lecture/1 quiz/2 lab
(Spring only)
Prerequisite: PHYS 101 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of Phys. 101. It includes electricity and magnetism, light, and modern physics. (Formerly PHYS 2.2)
Transfer Credit: CSU; UC

PHYS 201 (CAN PHYS SEQ B)(CAN PHYS 8)
ENGINEERING PHYSICS 4 UNITS
Class hours: 3 lecture/1 quiz/2 lab
Prerequisite: PHYS 100 and MATH 102 or equivalent with grades of Credit or "C" or higher.
This is the first course in a three semester sequence designed to meet the requirements for engineering and related majors. Topics to be covered are mechanics, wave motion and sound. (Formerly PHYS 4.1)
Transfer Credit: CSU; UC

PHYS 202 (CAN PHYS SEQ B)(CAN PHYS 12)
ENGINEERING PHYSICS 4 UNITS
Class hours: 3 lecture/1 quiz/2 lab
Prerequisite: PHYS 201 or equivalent with a grade of Credit or "C" or higher.
This course emphasizes the physics of electricity and magnetism. The units of study under electricity include electrostatics, DC circuits and capacitance. Magnetism will cover magnetic fields, force on conductors, torque on coils, motional electromagnetic force and induction, self and mutual inductance, magnetic properties of matter and some basic AC theory. (Formerly PHYS 4.2)
Transfer Credit: CSU; UC

PHYS 203 (CAN PHYS SEQ B)(CAN PHYS 14)
ENGINEERING PHYSICS 4 UNITS
Class hours: 3 lecture/1 quiz/2 lab (Fall only)
Prerequisite: PHYS 201 or equivalent with a grade of Credit or "C" or higher.
This course is a study of heat, light and modern physics. The unit on heat covers such topics as thermometry, calorimetry, the gas laws, thermodynamics and kinetic theory. Optics include geometric and physical optics. Modern physics touches on selected topics such as photoelectric effects, x-ray production and nuclear effects. (Formerly PHYS 4.3)
Transfer Credit: CSU; UC

PLASTICS/COMPOSITES MANUFACTURING TECHNOLOGY

(Technology Division)

PMT 1 (Not degree applicable)
PLASTICS FUNDAMENTALS 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will introduce students to the theory and practical application of repair for plastics and composites. The study of repair techniques as well as safety in handling hand tools, power tools, and special plastic repair equipment will be covered. It will prepare students for practical hands-on training to gain experience of plastic repairs. Related technical information and demonstrations are presented concerning plastic identification, materials, and processes of repair. The PMT 63L specialty lab class is recommended to perform the hands-on training and repairs. (Formerly PMT 15)

PMT 2 (Not degree applicable)
INJECTION MOLDING FUNDAMENTALS 1.5 UNITS
Class hours: 2 lecture/3 lab (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This class introduces students to basic fundamentals of set-up and operation of injection molding equipment in the plastics and composites industry. Safe handling of all machine operations and hands on training utilizing current industry equipment is emphasized. Students receive training that enables them to apply for entry-level positions in the plastics and composites industry. The course may be taken for a maximum of 3 units. (Formerly PMT 12.9)

PMT 3 (Not degree applicable)
PLASTICS REPAIR 1 UNIT
Class hours: 2 lecture (9 weeks)
Prerequisite: None.
This course will introduce students to the theory and practical application of repair for plastics and composites. The study of repair techniques as well as safety in handling hand tools, power tools, and special plastic repair equipment will be covered. It will prepare students for practical hands-on training to gain experience of plastic repairs. Related technical information and demonstrations are presented concerning plastic identification, materials, and processes of repair. The PMT 63L specialty lab class is recommended to perform the hands-on training and repairs. (Formerly PMT 15)

PMT 4 PLASTICS III 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: PMT 4 or equivalent with a grade of Credit or "C" or higher.
This is a specialty course for the advanced plastics student or individuals employed in the plastics industry who wish to further their skills and knowledge of plastics. Laboratory experience will continue to stress major areas of specialization selected by the student, including: materials, process applications, and equipment. (Formerly PMT 31)

PMT 5 (Not degree applicable)
SURVEY OF COMPOSITES 1.5 UNITS
Class hours: 3 lecture (9 weeks)
Prerequisite: None.
This course provides an overview of manufacturing processes, processing and materials used within the composites industry. The design, construction, and fabrication of lami-
Announcement of Courses

FIBERGLASS I 2.5 UNITS
PMT 61
Class hours: 2 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course will provide students with theory and "hands-on" exposure to fabrication techniques. Areas of emphasis include structural and nonstructural (cosmetic) evaluation, material handling, surface preparation, and common types of damages encountered within the composite industry. (Formerly PMT 32)

MOLDMAKING 11 3 UNITS
PMT 52
Class hours: 3 lecture/1 lab
Prerequisite: PMT 65 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is designed to further extend both the students' skills in plastic injection moldmaking and knowledge of the latest technologies used for mold designing and mold fabrication, including the use of computer programs. Definitions of complex types of plastic injection molds, mathematical solutions of plastic part requirements, computer-generated Electrical Discharge Machining (EDM) electrodes and computer-generated template designs, and surface polishing will be covered. (Formerly PMT 32)

MOLDMAKING 11 3 UNITS
PMT 52
Class hours: 3 lecture/1 lab
Prerequisite: PMT 65 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is designed to further extend both the students' skills in plastic injection moldmaking and knowledge of the latest technologies used for mold designing and mold fabrication, including the use of computer programs. Definitions of complex types of plastic injection molds, mathematical solutions of plastic part requirements, computer-generated Electrical Discharge Machining (EDM) electrodes and computer-generated template designs, and surface polishing will be covered. (Formerly PMT 32)

MOLDMAKING 11 3 UNITS
PMT 52
Class hours: 3 lecture/1 lab
Prerequisite: PMT 65 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is designed to further extend both the students' skills in plastic injection moldmaking and knowledge of the latest technologies used for mold designing and mold fabrication, including the use of computer programs. Definitions of complex types of plastic injection molds, mathematical solutions of plastic part requirements, computer-generated Electrical Discharge Machining (EDM) electrodes and computer-generated template designs, and surface polishing will be covered. (Formerly PMT 32)

SURVEY OF PLASTICS 1.5 UNITS
PMT 58
Class hours: 2 lecture/2 lab
Prerequisite: PMT 65 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is designed to further extend both the students' skills in plastic injection moldmaking and knowledge of the latest technologies used for mold designing and mold fabrication, including the use of computer programs. Definitions of complex types of plastic injection molds, mathematical solutions of plastic part requirements, computer-generated Electrical Discharge Machining (EDM) electrodes and computer-generated template designs, and surface polishing will be covered. (Formerly PMT 32)

SURVEY OF PLASTICS 1.5 UNITS
PMT 58
Class hours: 2 lecture/2 lab
Prerequisite: PMT 65 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is designed to further extend both the students' skills in plastic injection moldmaking and knowledge of the latest technologies used for mold designing and mold fabrication, including the use of computer programs. Definitions of complex types of plastic injection molds, mathematical solutions of plastic part requirements, computer-generated Electrical Discharge Machining (EDM) electrodes and computer-generated template designs, and surface polishing will be covered. (Formerly PMT 32)

SURVEY OF PLASTICS 1.5 UNITS
PMT 58
Class hours: 2 lecture/2 lab
Prerequisite: PMT 65 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is designed to further extend both the students' skills in plastic injection moldmaking and knowledge of the latest technologies used for mold designing and mold fabrication, including the use of computer programs. Definitions of complex types of plastic injection molds, mathematical solutions of plastic part requirements, computer-generated Electrical Discharge Machining (EDM) electrodes and computer-generated template designs, and surface polishing will be covered. (Formerly PMT 32)

SURVEY OF PLASTICS 1.5 UNITS
PMT 58
Class hours: 2 lecture/2 lab
Prerequisite: PMT 65 or equivalent with a grade of Credit or "C" or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course is designed to further extend both the students' skills in plastic injection moldmaking and knowledge of the latest technologies used for mold designing and mold fabrication, including the use of computer programs. Definitions of complex types of plastic injection molds, mathematical solutions of plastic part requirements, computer-generated Electrical Discharge Machining (EDM) electrodes and computer-generated template designs, and surface polishing will be covered. (Formerly PMT 32)
is stressed. Other areas explored are mold laminating, repair, and proper use of resins and fillers. Mixing of resins and safety procedures are emphasized. This course may be taken for a maximum of 5 units. (Formerly PMT 14)

PMT 62
PLASTIC PACKAGING 2 UNITS
Class hours: 4 lecture (9 weeks)
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to the theory and practical methods of plastic packaging. Areas of concentration are on plastic materials, processing applications and equipment used in consumer and industrial packaging. Material identification and plastic material recycling are also covered. (Formerly PMT 17)

PMT 63L
SPECIALTY PLASTICS LAB 0.5 UNIT
Class hours: 3 lab (9 weeks)
Prerequisite: None.
This is a lab course to complement other courses in the Plastic/Composite curriculum. It is designed to give practical experience in working with plastics and fiberglass materials. This course may be taken for a maximum of 2 units. (Formerly PMT 19)

PMT 64
PLASTICS II 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: PMT 100 or equivalent with a grade of Credit or “C” or higher.
This is an intermediate course designed to further the student's knowledge of materials and processes. Laboratory work will stress the two major areas of specialization selected by the student from the following: Plastics Molding, Thermofoming Fabrication, Reinforced Plastics, Testing Equipment Set-Up and Maintenance, and Tooling. (Formerly PMT 21)

PMT 65
MOLDMAKING I 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: None.
This course introduces student to the fundamentals of plastic injection mold designs and fabrication. This course includes basic shop operation, demonstrations, safety and the technology of moldmaking in the plastic industry. (Formerly PMT 22)

PMT 66
HYDRAULICS AND PNEUMATICS 3 UNITS
Class hours: 2.5 lecture/1.5 lab
Prerequisite: PMT 100 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
This course will introduce the student to the fundamentals and principles of hydraulics and pneumatics as they relate to plastics and machine tool equipment. Applications of each will be explored, as well as the design of simple circuits and systems in the laboratory. (Formerly PMT 23)

PMT 67
FIBERGLASS II 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
This is a course in fiberglass/composites manufacturing technology. Areas of concentration include the processes and techniques of fiberglass composites as applied in industry. This course will place the student in production situations similar to those encountered in industry. The student may also have an opportunity to construct a project of his/her own with instructor approval. (Formerly PMT 24)

PMT 68
PLASTICS MATERIALS AND PROCESSES 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
This course is directed toward the study of plastic materials used in processing areas. Proper selection and applications of various thermosetting and thermoplastics are studied. Testing of these materials is covered as specified in the ASTM Standards, including physical properties and chemical properties. Plastic material processing that is covered includes injection molding, compression molding and extrusion. (Formerly PMT 25)

PMT 70
COMPOSITES TECHNOLOGY 2.5 UNITS
Class hours: 2 lecture/2 lab
Recommendation: PMT 67 or equivalent with a grade of Credit or “C” or higher.
This course is designed for students in the field of fiberglass/composites. Emphasis is on the lay-up, vacuum bagging, and cure processing of wet laminating techniques and preimpregnated materials. Also included are processes of resin transfer molding (RTM), filament winding, pultrusion, bonding, and fabrication of composite structures with honeycomb core materials. Laboratory experience will cover safety of handling resins, reinforcements, and related materials. (Formerly PMT 34)

PMT 71
PLASTICS IV 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: PMT 4 or equivalent with a grade of Credit or “C” or higher.
This is a specialty course for the advanced plastics student or one employed in the plastics industry. Emphasis will be placed on development of independent problem solving in the student's major area of specialization. (Formerly PMT 41)

PMT 72
TOOLING FOR PLASTICS 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
Recommendation: PMT 61 or PMT 67 or PMT 70 or equivalent with a grade of Credit or “C” or higher.
This course covers basic tooling concepts and materials for making various plastic composite molds. These include laminated, cast and high temperature plastic tools as well as plastic tooling. Design recommendations, physical properties data, repair procedures and techniques are discussed. (Formerly PMT 46)

PMT 100
PLASTICS 1 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
This course provides knowledge of materials and processes used in the field of plastic manufacturing today. An overview of plastic technology and application of production processes, as well as fabrication methods are covered. This course includes molding, forming, reinforced materials, bonding, laminating, and finishing techniques, and plastic materials identification. (Formerly PMT 1) Transfer Credit: CSU

PMT 221
MODELLING 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces students to techniques and various materials used in commercial modeling. Areas of emphasis include conventional and current trends, tools and materials, dimensional
POLITICAL SCIENCE

(Humanities/ Social Sciences Division)

POL 90
INTERNET STRATEGIES FOR CIVIC COMMUNICATION 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course, using traditional and online techniques looks at the growing use of the Internet by public agencies, government relations departments, non-profit and community-based organizations, and political/civic campaigns, and civic institutions. Students will examine the effects of Internet on society as well as the economic impact of Internet on political, public and civic institutions. Strategic issues related to aligning Internet solutions and overall institutional objectives will be addressed including Internet tools for fundraising, targeted communication, volunteer recruitment, polling, management, narrow casting and online collaboration. (Formerly POL 15)

POL 101
AMERICAN POLITICAL INSTITUTIONS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 20 or equivalent with a grade of Credit or “C” or higher and satisfactory completion of the Reading Placement Process or READ 43 or equivalent with a grade of Credit or “C” or higher.
This course is a study of national, state and local government, including the national and state constitutions. It emphasizes the rights and responsibilities of citizens and political processes and issues facing government. Emphasis will be given to practical policy formulation at all levels. (Formerly POL 5) Transfer Credit: CSU; UC

POL 100
CALIFORNIA STATE AND LOCAL GOVERNMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 20 or equivalent with a grade of Credit or “C” or higher and satisfactory completion of the Reading Placement Process or READ 43 or equivalent with a grade of Credit or “C” or higher.
This course stresses the study of California state and local government (counties, cities, and special districts) and California party politics, including the study of the California constitution, intergovernmental relations, regional governments, and urban politics and problems. This course is designed to make available to students concepts, information, and skills which will enable them to better understand the political and governmental systems in which citizens function. (Formerly POL 18) Transfer Credit: CSU

POL 201
INTRODUCTION TO POLITICAL SCIENCE AND AMERICAN GOVERNMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or “C” or higher.
This course is a study of basic concepts, theories, and principles of international politics. Emphasis shall be placed on an examination of contemporary world affairs including the importance of nationalism, imperialism, ideology, alliance systems, the rise of the developing nations and the nature of international organizations. Specific case studies shall be examined to illustrate the various principles of international relations. (Formerly POL 10) Transfer Credit: CSU; UC

POL 220
COMPARATIVE GOVERNMENT 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Satisfactory score on the English Placement Process or ENGL 52 with a grade of Credit or “C” or higher and satisfactory completion of the Reading Placement Process or READ 54 with a grade of Credit or “C” or higher.
This course includes a study of comparative systems of government, differing ideologies, and current political problems. Analyses of revolutionary forces in the 20th century are conducted for political insight and understanding. (Formerly POL 2) Transfer Credit: CSU; UC

POL 230
CONTEMPORARY POLITICAL ISSUES: MIDDLE EAST 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
A one-semester course emphasizing the basic issues in conflict between nations of the Middle East, this class will investigate, in addition to the political and economic conditions, the social and cultural contributions of the Middle Eastern nations. (Formerly POL 12) Transfer Credit: CSU; UC

PSYCHOLOGY

(Humanities/ Social Sciences Division)

PSYC 101
GENERAL INTRODUCTORY PSYCHOLOGY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course presents a general survey of psychology including development of the individual, learning, thinking, motivation, emotion, and perception. Some study is also given to the understanding and measure-
ment of individual differences, group processes, and the biology of behavior. (Formerly PSYC 1)
Transfer Credit: CSU; UC

**PSYC 103**  
**CRITICAL THINKING IN PSYCHOLOGY**  
3 UNITS  
Class hours: 3 lecture  
Prerequisite: ENGL 100 or equivalent with a grade of Credit or “C” or higher.  
Corequisite: None.  
Recommendation: None.  
This course covers the nature of critical thinking from a psychological perspective. Focusing on the nature of thinking, the course emphasizes the development of critical thinking applied to scientific inquiry. Through an interactive classroom environment that includes lecture/discussion, debates, and writing exercises, critical thinking skills such as problem solving, determining cause and effect relationships, analyzing arguments, fallacies in thinking, comparing facts with opinion, an understanding probabilities are developed. There will be an emphasis on the application of critical thinking skills to everyday issues. (Formerly PSYC 3)  
Transfer Credit: CSU; UC

**PSYC 139**  
**ISSUES IN PSYCHOLOGY**  
2 UNITS  
Class hours: 2 lecture  
Prerequisite: PSYC 101 or equivalent with a grade of Credit or “C” or higher.  
This course is an in depth survey of controversial issues in psychology highlighting interesting points of disagreement among psychologists on a theoretical as well as practical level. Topics include parapsychology, the inheritance of intelligence, biofeedback, pros and cons of psychological testing, meditation, psychosurgery, and deception in psychological experiments. (Formerly PSYC 20)  
Transfer Credit: CSU; UC

**PSYC 149**  
**PSYCHOLOGY: THE STUDY OF HUMAN BEHAVIOR**  
2 UNITS  
Class hours: 2 lecture  
Prerequisite: None.  
This course is a general introductory psychology course which will acquaint the students with basic psychological terms, concepts, principles and methodological approaches associated with the scientific study of behavior. An eclectic blend of behavioristic, Freudian and Humanistic points of view will be presented in the televised lessons. (Formerly PSYC 1)
Transfer Credit: CSU; UC

**PSYC 150**  
**PERSONAL AND SOCIAL ADJUSTMENT**  
3 UNITS  
Class hours: 3 lecture  
Prerequisite: None.  
Corequisite: None.  
Recommendation: PSYC 101 and ENGL 52 or equivalent with grades of Credit or “C” or higher.
This course is a broad survey of the psychological theories of human personality, encompassing the behavioral, psychoanalytic and humanistic points of view. The focus is the way in which each of the three views may be utilized to explain normal personality adjustment. The class is intended for college transfer students, especially Social Science majors. (Formerly PSYC 33)  
Transfer Credit: CSU; UC

**PSYC 210**  
**ELEMENTARY STATISTICS**  
(CAN PSY 6)  
4 UNITS  
Class hours: 3 lecture, 3 lab  
Prerequisite: MATH 80 or MATH 80B or equivalent with a grade of Credit or “C” or higher.
This course emphasizes the calculation and interpretation of the basic statistical measures, with major emphasis upon the meaning, limitations, and applicability of statistical procedures. It is intended for majors and minors in the behavioral sciences especially in psychology and sociology. (Formerly PSYC 4)  
Transfer Credit: CSU; UC

**PSYC 220**  
**RESEARCH METHODS**  
(CAN PSY 8)  
4 UNITS  
Class hours: 3 lecture, 3 lab  
Prerequisite: PSYC 101 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: Satisfactory score on English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
An introduction to the scientific study of psychological principles, this course is intended primarily for prospective psychology majors and other students who plan further work in psychology. Independent projects are developed, performed and reported with emphasis on laboratory and naturalistic techniques of observation and investigation. (Formerly PSYC 5)  
Transfer Credit: CSU; UC

**PSYC 241**  
**INTRODUCTION TO PSYCHOBIOLOGY**  
3 UNITS  
Class hours: 3 lecture  
Recommendation: PSYC 101 or equivalent with a grade of Credit or “C” or higher.
This course is a study of the biology of behavior, covering cells and what they do; and the structure, function, and development of the nervous and hormone systems. It also covers sensory processes, the neurological basis of motivated and emotional behavior, along with a series of specific behavioral categories, such as pain, aggression, sleep, dreaming, sexual behavior and mental illness. In addition, it explores the biological basis of the higher cerebral functions crucial to human beings as Homo sapiens, learning, memory, intelligence, thought and language. (Formerly PSYC 2)  
Transfer Credit: CSU; UC

**PSYC 251**  
**DEVELOPMENTAL PSYCHOLOGY**  
3 UNITS  
Class hours: 3 lecture  
Prerequisite: None.
An integrated study of the social, emotional, cognitive, and biological foundations of the human life cycle from conception to death will be presented in this course. Attention will also be devoted to the study of research methods and the application of research findings to ongoing developmental problems. Implications for personal and professional use will be discussed. (Formerly PSYC 11)  
Transfer Credit: CSU; UC

**PSYC 261**  
**SOCIAL PSYCHOLOGY**  
3 UNITS  
Class hours: 3 lecture  
Prerequisite: None.
This course emphasizes an introduction to methods and content of social psychology; theories of social behavior; communication; social influence; conformity; aggression; leadership; and, prejudice. Since emphasis will be given to practical applications of research findings, this elective course is recommended for students majoring in the social and behavioral sciences. (Formerly PSYC 13)  
Transfer Credit: CSU; UC

**PSYC 271**  
**ABNORMAL PSYCHOLOGY**  
3 UNITS  
Class hours: 3 lecture  
Prerequisite: None.
This course entails a detailed survey of the various types of abnormal behavior such as neurosis, psychosis, alcoholism and drug
dependence, crime, sexual deviations, and mental retardation. The different views of abnormality, its causes, treatment, and prevention are also discussed. (Formerly PSYC 14)
Transfer Credit: CSU; UC

READING

(Liberal Arts Division)

READ 5T (Not degree applicable) 0 UNIT
EDUCATIONAL TECHNOLOGY SKILLS FOR COLLEGE
Class hours: 3 lecture, open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course increases student knowledge of educational technology resources on campus, improves student use of educational technology for successful completion of technology based course assignments, and improves student confidence in utilizing educational technology. Special attention will be given to skills necessary for success in distributed education courses. (Formerly READ 60)

READ 6 (Not degree applicable) 0.5 UNITS
TUTOR TRAINING
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the Reading Placement Process or READ 42 or equivalent with a grade of Credit or “C” or higher.
This course is designed to acquaint the tutor with techniques in assisting students to gain better scholastic achievement. Those students who fail to complete nine hours of course work will not receive credit for this course. The course may be repeated for a maximum of one unit. This course is offered on a credit/no credit basis only. (Formerly READ 60)

READ 41T (Not degree applicable) 0 UNIT
INDIVIDUALIZED READING
Class hours: 3 lecture, open entry/open exit
Prerequisite: None.
This course is for students who wish to improve their reading skills outside of a structured class. Students will be tested as they enter the class, or by the reading component of the Cerritos College assessment test. Based on the scores from the test, work in any of the following areas may be assigned: phonics, vocabulary study, vocabulary in context, literal comprehension, inferential comprehension, critical reading or study-related reading. (Formerly READ 51)

READ 42 (Not degree applicable) 3 UNITS
READING ACCESS FOR COLLEGE SUCCESS
Class hours: 3 lecture
Prerequisite: None.
Recommendation: Completion of the Reading Placement Process.
This course is designed to help culturally diverse students make the transition from non-credit courses into college-credit programs. It is open to non-readers and limited readers, both native and immigrants. Visual, auditory, tactile, and kinesthetic instruction are included. Phonics, vocabulary, reading, and writing skills are stressed. (Formerly READ 69.1/READ 52)

READ 43 (Not degree applicable) 3 UNITS
BASIC READING SKILLS
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the Reading Placement Process or READ 42 or equivalent with a grade of Credit or “C” or higher.
Recommendation: None.
This course is designed for students who wish to improve basic reading skills. Coursework includes work on fundamental word analysis skills and fundamental comprehension skills. This course will be offered on a credit/no credit basis only. To receive credit for this course, students will need to demonstrate that they are reading at the tenth grade level. (Formerly READ 69)

READ 44 (Not degree applicable) 3 UNITS
EFFECTIVE STUDY METHODS FOR COLLEGE
Class hours: 3 lecture
Prerequisite: None.
The student will become aware of and experience proven learning techniques ensuring improved comprehension and retention of information from college lectures and textbooks. Skills to be emphasized include: study time management, methods for reading textbooks efficiently, note-taking techniques, understanding textbook assignments, preparation for examinations, test-taking techniques, effective listening techniques, guidelines for vocabulary development, memory techniques, the preparation of research papers and library skills. Study skills surveys will be used to help students identify and improve upon their personal study skills habits and their individual mode of learning. (Formerly READ 59)

READ 46 (Not degree applicable) 3 UNITS
VOCATIONAL/TECHNICAL READING
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course develops the ability to acquire and improve reading skills necessary for success in the students’ occupational lives. All of the instructional activities in this course will strengthen specific technology course curriculum: reading comprehension, vocabulary development, word attack, and study-reading strategies that will prepare students for reading in the workplace. (Formerly READ 56)

READ 54 (Not degree applicable) 3 UNITS
ADVANCED READING
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the Reading Placement Process or READ 43 or equivalent with a grade of Credit or “C” or higher.
This course is designed to improve literal, interpretive, critical comprehension, and vocabulary skills. Emphasis will be on structured vocabulary development and college-level reading skills.

READ 100 (Not degree applicable) 3 UNITS
SPEED READING METHODS AND APPLICATIONS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to increase reading speed and comprehension in college-level material. Emphasis is placed on developing an improved reading method through learning rapid reading techniques, gaining flexibility in adjusting reading speed to suit purpose for reading and difficulty of the material, overcoming habits of regression and subvocalization, recognizing and using basic writing structures and literary elements as aids to comprehension in depth, and mastering speed study techniques and speed research techniques. All methods and techniques are applied to various types of college-level reading materials. (Formerly READ 6)
Transfer Credit: CSU

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
SECRETARIAL (ADMINISTRATIVE, LEGAL, MEDICAL)
SEE BASS
(Business Administrative Support Systems)

SIGN LANGUAGE
(Liberal Arts Division)

SL 48 (Not degree applicable) INTERMEDIATE II SIGN LANGUAGE 2 UNITS
Class hours: 2 lecture, 1 lab
Prerequisite: SL 51 or equivalent with a grade of Credit or "C" or higher.
This course is designed for the student at the intermediate sign language level. This course also provides students with a more extensive sign vocabulary, increased skills in sign language and more fluency in signing. Issues on deaf culture will be discussed. This course may be taken for a maximum of 4 units. (Formerly SL 52)

SL 50 BEGINNING SIGN LANGUAGE 2 UNITS
Class hours: 2 lecture, 1 lab
Prerequisite: None.
The focus of this introductory course is to develop specific skills in sign language for anyone needing to communicate with individuals who have hearing disabilities. The course is designed for those with no signing ability as well as those who have already mastered basic signs, finger spelling and reading signs. This course may be taken for a maximum of 4 units.

SL 51 INTERMEDIATE SIGN LANGUAGE 2 UNITS
Class hours: 2 lecture, 1 lab
Prerequisite: SL 50 or equivalent with a grade of Credit or "C" or higher.
The focus of this course is to increase specific skills in sign language and build vocabulary to further communicate with individuals who have hearing disabilities. This course may be taken for a maximum of 4 units.

SOCIOLOGY
(Humanities/ Social Sciences Division)

SOC 101 INTRODUCTORY SOCIOLOGY PRINCIPLES 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Sociology 1 represents an introductory survey of the fundamental theories, philosophies and problems associated with the study of sociology in a pluralistic society. A multicultural approach is used throughout in the analysis of human relationships through a study of major concepts. Institutions and their functions, personality development, social interaction, social change, collective behavior, the environment, war and peace are major themes for this course. (Formerly SOC 1)
Transfer Credit: CSU; UC

SOC 110 MARRIAGE AND THE FAMILY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Sociology 110 represents an introductory survey of the sociological, psychological and biological factors involved in love, marital and family relationships. Using a multicultural approach, consideration is given to the complex issues of dating, courting, mate selection, alternatives to marriage, conflict, communication, sex roles, child-bearing and child-rearing. (Formerly SOC 15)
Transfer Credit: CSU; UC

SOC 120 INTRODUCTION TO HUMAN SEXUALITY 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
Sociology 120 represents an introductory survey of the behavioral, biological, historical, religious, and socio-cultural aspects of human sexuality in a pluralistic society. A multicultural approach is used throughout in the study of the anatomy and physiology of sexual function, treatment of dysfunction, psychosexual development and the relationship between sexuality, changing social/cultural standards and contemporary values. Sex across the life span, pregnancy, birth control, sexually transmitted diseases, the AIDS crisis, homosexuality, sexual assault, incest, and child molestation are among the topics covered. (Formerly SOC 10)
Transfer Credit: CSU; UC
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Class Hours</th>
<th>Prerequisites</th>
<th>Corequisites</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 201</td>
<td>SOCIAL PROBLEMS</td>
<td>3</td>
<td>3 lecture</td>
<td>None</td>
<td>None</td>
<td>Recommendation: SOC 101 or equivalent with a grade of Credit or “C” or higher.</td>
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<td>Sociology 201 represents a study of undesirable socially constructed social problems. Special emphasis is on the range of phenomena considered social problems which may include war, overpopulation, poverty, street crime, white-collar crime, racial/ethnic conflict, mental illness, the environment, health care, international terrorism, government regulation, drug abuse, ageism, unemployment, hopelessness, the decline of the family, child abuse, urban decay, pornography, overcrowded prisons, campus unrest, sex discrimination, abortion, alienated youth, and AIDS. (Formerly SOC 2)</td>
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<tr>
<td>SOC 210</td>
<td>AMERICAN MINORITY RELATIONS</td>
<td>3</td>
<td>3 lecture</td>
<td>None</td>
<td>None</td>
<td>Transfer Credit: CSU; UC</td>
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<tr>
<td>SOC 220</td>
<td>INTRODUCTION TO HUMAN SERVICES</td>
<td>3</td>
<td>3 lecture</td>
<td>None</td>
<td>None</td>
<td>Recommendation: SOC 101 or equivalent with a grade of Credit or “C” or higher.</td>
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<td>Sociology 220 represents an introduction to the purposes, historical context and organizational structure of human services. Emphasis is threefold: the development of human services and related careers in response to situations of individuals or groups who need assistance to live better lives (purpose); the recent history of human services dating from the early 1960s, which is marked by an increased awareness that many people need different kinds of assistance; and the purposes of the organizations that deliver services to clients. (Formerly SOC 20)</td>
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<td>SOC 225</td>
<td>CONTEMPORARY SOCIAL ISSUES</td>
<td>3</td>
<td>3 lecture</td>
<td>None</td>
<td>None</td>
<td>Transfer Credit: CSU</td>
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<tr>
<td>SOC 228</td>
<td>SOCIOLOGY OF CULTURAL DIVERSITY: CHALLENGE AND CHANGE</td>
<td>3</td>
<td>3 lecture</td>
<td>None</td>
<td>None</td>
<td>Transfer Credit: CSU; UC</td>
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<tr>
<td>SOC 230</td>
<td>JUVENILE DELINQUENCY</td>
<td>3</td>
<td>3 lecture</td>
<td>None</td>
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<tr>
<td>SOC 250</td>
<td>SOCIOLOGY OF AGING</td>
<td>3</td>
<td>3 lecture</td>
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<td>None</td>
<td>Transfer Credit: CSU</td>
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<tr>
<td>SPAN 101</td>
<td>ELEMENTARY SPANISH</td>
<td>5</td>
<td>5 lecture, 1 hr. lab arr.</td>
<td>None</td>
<td>None</td>
<td>Transfer Credit: CSU; UC</td>
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<tr>
<td>SPAN 102</td>
<td>ELEMENTARY SPANISH</td>
<td>5</td>
<td>5 lecture, 1 hr. lab arr.</td>
<td>None</td>
<td>None</td>
<td>Transfer Credit: CSU; UC</td>
</tr>
</tbody>
</table>

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SPAN 103A
ELEMENARY SPANISH FOR TEACHER PREPARATION I 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This beginning course in Spanish language for teacher preparation emphasizes listening, speaking, reading, and writing, and helps to develop an appreciation of cultural diversity through the study of differences and similarities between cultures. (Formerly SPAN 16)
Transfer Credit: CSU

SPAN 103B
ELEMENARY SPANISH FOR TEACHER PREPARATION 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: SPAN 103A or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is a continuation of the study of basic Spanish language principles for teacher preparation with an emphasis on oral and written communication. It further develops an appreciation of cultural diversity through the study of differences and similarities between cultures. (Formerly SPAN 17)
Transfer Credit: CSU

SPAN 111
ELEMENTARY SPANISH FOR SPANISH SPEAKERS 5 UNITS
Class hours: 5 lecture, 1 lab
Prerequisite: None.
This beginning course corresponding to SPAN 101 is designed for students already able to understand and speak the language as used in everyday situations. Emphasis is on listening, speaking, reading, writing and special problems with structures and vocabulary. (Formerly SPAN 1.1)
Transfer Credit: CSU; UC

SPAN 112
ELEMENTARY SPANISH FOR SPANISH SPEAKERS 5 UNITS
Class hours: 5 lecture, 1 lab
Prerequisite: SPAN 101 or SPAN 111 or SPAN 103B or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of SPAN 111 or SPAN 101 designed for the native speaker. It corresponds to SPAN 102 with an emphasis on oral and written communication. This course is designed for students that already speak, understand and have studied Spanish. It helps develop the appreciation of cultural diversity through the study of differences and similarities between the diverse Latin-American and Spanish cultures. (Formerly SPAN 2.1)
Transfer Credit: CSU; UC

SPAN 201
INTERMEDIATE SPANISH 5 UNITS
Class hours: 5 lecture/1 hour lab arranged
Prerequisite: SPAN 102 or SPAN 112 or equivalent with a grade of Credit or "C" or higher.
This course provides a review and in-depth study of important grammatical concepts. Reading and interpretation of literary works by Hispanic writers and guided and original compositions are included. This course will further develop the appreciation of cultural diversity. The class is conducted primarily in Spanish. (Formerly SPAN 3)
Transfer Credit: CSU; UC

SPAN 202
INTERMEDIATE SPANISH 4 UNITS
Class hours: 4 lecture
Prerequisite: SPAN 201 or equivalent with a grade of Credit or "C" or higher.
This course provides a review and in-depth study of grammatical concepts. Reading and interpretation of literary works by Latin American and Spanish writers, and guided and original compositions are included. This course provides further practice in the discussion and presentation of current cultural topics through literature. This class, conducted primarily in Spanish, will further develop the appreciation of cultural diversity and is recommended for all Spanish majors. (Formerly SPAN 4)
Transfer Credit: CSU; UC

SPAN 205
ADVANCED SPANISH COMPOSITION 3 UNITS
Class hours: 3 lecture
Prerequisite: SPAN 201 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is a continuation of the development of Spanish composition skills and applied grammar. Compositions are assigned to develop specific writing skills and improve critical judgment. This course will further develop the appreciation of cultural diversity. The class is conducted primarily in Spanish. (Formerly SPAN 3.5)
Transfer Credit: CSU; UC

SPAN 206
HISPANIC LITERATURE IN THE MEDIA 3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: SPAN 201 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course will examine the translation of various literary genres from different periods of Hispanic literature, both Peninsular and Latin American, into various audio/visual media. An exploration of how literature and audio/visual media create, shape, reinforce, and/or change culture and impact its images, stereotypes, and archetypes will be examined. Theoretical approaches to the adaptation of literature into other media will be studied.  (Formerly SPAN 6)
Transfer Credit: CSU; UC

SPAN 210
HIGHLIGHTS OF HISPANIC CULTURE 3 UNITS
Class hours: 3 lecture
Prerequisite: SPAN 102 or SPAN 112 or equivalent with a grade of Credit or "C" or higher.
This course traces the principal currents of Hispanic culture through Europe and the New World. Using a thematic approach, it traces the historic, political and economic development of the Spanish speaking people, and presents the highlights of Hispanic achievements from the standpoint of civilization and culture. This course, conducted primarily in Spanish, is recommended for Spanish majors. (Formerly SPAN 10)
Transfer Credit: CSU; UC

SPAN 213
LIVING SPANISH GRAMMAR AND WRITTEN COMMUNICATION 2 UNITS
(An intermediate course)
Class hours: 2 lecture
Prerequisite: SPAN 102 or SPAN 112 or equivalent with a grade of Credit or "C" or higher.
Study of fundamental grammatical principles and sentence structures with drills and translations. (Special emphasis on uses of the Imperfect and the Preterite and the phonetic rules of the accent.) Writing of short paragraphs blending creativity with grammatical correctness. An excellent review course for all students. Recommended for Spanish majors. (Formerly SPAN 13)
Transfer Credit: CSU; UC
SPAN 214
LIVING SPANISH GRAMMAR AND WRITTEN COMMUNICATION 2 UNITS
(An intermediate course)
Class hours: 2 lecture
Prerequisite: SPAN 102 or SPAN 112 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of individual emphasis on vocabulary and sentence structure with drills and translations. (Special emphasis on uses of the Subjective and the phonetic rules of the accent.) Writing of short compositions blending creativity with grammatical correctness. An excellent review course for all students. Recommended for Spanish majors. (Formerly SPAN 14) Transfer Credit: UC

SPAN 223
SPANISH FOR HEALTH AND MEDICAL CAREERS 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This Spanish course for health and medical personnel is designed for students who plan to use Spanish as a communication tool in their field of specialization. A major emphasis is on vocabulary and situational dialogues closely related to health and medical careers. (Formerly SPAN 23) Transfer Credit: CSU

SPAN 245
INTRODUCTION TO CHICANO/MEXICAN AMERICAN CULTURE 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
A study of the culture of the Chicano/Mexican American student. Analyzes the family, religious institutions, contributions, advancements and problems of the Chicano in the United States and aids him in achieving self-identification and an understanding of his relationship to his own community. Develops insight into the special nature of Chicano culture for those outside that culture. Conducted in English and open to all students. (Formerly SPAN 45) Transfer Credit: CSU

SPAN 281
BEGINNING CONVERSATIONAL SPANISH 3 UNITS
Class hours: 3 lecture
Prerequisite: SPAN 102 or equivalent with a grade of Credit or "C" or higher.
This course gives the student practice in understanding and speaking Spanish as used in the home, school, business, travel and everyday life. Emphasis is placed on vocabulary, idioms, and language patterns fundamental to an active and practical use of Spanish. This course, recommended for all Spanish majors, develops the appreciation of cultural diversity. (Formerly SPAN 8.1) Transfer Credit: CSU; UC

SPAN 282
INTERMEDIATE CONVERSATIONAL SPANISH 3 UNITS
Class hours: 3 lecture
Prerequisite: SPAN 281 or equivalent with a grade of Credit or "C" or higher.
This course provides intensive practice in the discussion of current topics including multiculturalism. Emphasis is on the acquisition of special idioms and vocabulary suitable to conversation about the family, the world of work, business, sports and pastimes, popular culture, travel and ecology. This course, conducted primarily in Spanish, is recommended for all Spanish majors. (Formerly SPAN 8.2) Transfer Credit: CSU; UC

SPAN 283
ADVANCED CONVERSATIONAL SPANISH 3 UNITS
Class hours: 3 lecture
Prerequisite: SPAN 282 or equivalent with a grade of Credit or "C" or higher.
This course consists of in-depth oral discussion of cultural topics, including modern family life, the job market, advertising in the business world, pastimes and amusements, economy versus ecology, the world of travel and multiculturalism. Emphasis is on the acquisition of appropriate vocabulary and language patterns, and the creative development of arguments. This course, conducted in Spanish, is recommended for all Spanish majors. (Formerly SPAN 8.3) Transfer Credit: CSU; UC

SPECIAL STUDIES

SS 69
SPECIAL STUDIES 0-5 UNITS
Class hours: Variable
Prerequisite: Varies according to topic.
Corequisite: Varies according to topic.
Recommendation: Varies according to topic.
This course will provide students the opportunity to explore topics in a particular discipline not offered in a regular departmental curriculum. Material will vary by discipline and from semester to semester. Topics are selected according to student and instructor interest. These courses are not offered each semester.

SS 109
SPECIAL STUDIES 0-5 UNITS
Class hours: Variable
Prerequisite: Varies according to topic.
Corequisite: Varies according to topic.
Recommendation: Varies according to topic.
This course will provide students the opportunity to explore topics in a particular discipline not offered in a regular departmental curriculum. Material will vary by discipline and from semester to semester. Topics are selected according to student and instructor interest. These courses are not offered each semester.

Speech (Liberal Arts Division)

SPCH 30
COMMUNICATION DISORDERS 1 UNIT
(Not degree applicable)
Class hours: 3 lecture/lab
Prerequisite: None.
This course is designed for students with a communication difficulty. Speech-Language Hearing problems such as articulation, stuttering, voice disorders, regional or foreign dialects, language impairments due to a hearing loss are dealt with by individual or small group therapy. This course may be taken for a maximum of 4 units. The course is to be offered on a credit/no credit basis. (Formerly SPCH 50.1)

SPCH 31
COMMUNICATION DISORDERS 1 UNIT
(Not degree applicable)
Class hours: 3 lecture/lab
Prerequisite: 4 units of SPCH 30 or equivalent with a grade of Credit or "C" or higher.
This course is a continuation of individual

All courses on this page are Title V Associate Degree applicable credit courses unless otherwise noted.
and/or small group therapy for students with a communication difficulty such as articulation, stuttering, voice disorders, regional or foreign dialects, language usage, and speech and language impairments due to hearing loss. It is a continuation of SPCH 30 for students who require further instruction. This course may be taken for a maximum of 4 units. This course is offered on a Credit/No Credit basis. (Formerly SPCH 50.2)

**SPCH 32** (Not degree applicable)
**COMMUNICATION DISORDERS 0 UNIT**
Class hours: 3 lecture
Open entry/open exit
Prerequisite: None.
Limitation on enrollment: consultation by a certified speech pathologist. This course is for those students who have speech, hearing, language difficulties such as articulation problems, stuttering, voice disorders, regional or foreign dialects, and speech impairments due to hearing difficulties. This course provides individual or small group therapy. Students may enter the clinic at any time during the semester. (Formerly SPCH 50.3)

**SPCH 45** (Not degree applicable)
**SPEECH-COMMUNICATION FOR CAREERS 1 UNIT**
Class hours: 1 lecture, 1 lab
Open entry/open exit
Prerequisite: None.
This course is a practicum in speech-communication within a career or occupational role. Theory will serve as a basis for the practical application of communication principles. Effective interaction with superiors, co-workers and the public is stressed. (Formerly SPCH 56)

**SPCH 46T** (Not degree applicable)
**INDIVIDUALIZED SPEECH 0 UNIT**
Class hours: 3 lab (17 weeks)
Open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course explores topics in speech communications that are necessary for successful communication interactions to occur in college or community settings and, in the workplace. This course may not be taught every semester. (Formerly SPCH 66)

**SPCH 60**
**INTRODUCTION TO COMMUNICATION 3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
This course is designed for students who need an introductory course in oral communication. It will aid them in conversation, small group interaction, identification of speaking purposes, supporting ideas, and listening skills. Videotape is used as an evaluative tool.

**SPCH 100**
**FUNDAMENTALS OF ORAL COMMUNICATION 3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent or SPCH 60 or equivalent with a grade of Credit or “C” or higher.
This survey course is an overview of the diversity of human communication. The student develops an understanding of the communication process, the basic elements of improving interpersonal communication, and how to reduce communication apprehension. Also included are leadership and participation in small groups, interviewing, and speech preparation. This course includes oral presentations, and videotaping is used as an instructional tool. (Formerly SPCH 1)
Transfer Credit: CSU; UC

**SPCH 110**
**INTERCULTURAL COMMUNICATION 3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Corequisite: None.
Recommendation: READ 54 or ENGL 52 or equivalent with a grade of Credit or “C” or higher or satisfactory completion of the English Placement process.
This course presents theories and principles of communication with an emphasis on application of concepts relevant to intercultural communication. It has a culture general approach focusing on variables which influence the communication process. Assignments and activities involve students in the analysis of different communication patterns across cultures and the exploration and practice of methods, skills and techniques for improving intercultural communication.
(Formerly SPCH 11)
Transfer Credit: CSU; UC

**SPCH 120**
**FUNDAMENTALS OF INTERPERSONAL COMMUNICATION 3 UNITS**
Class hours: 3 lecture
Prerequisite: None.
Recommendation: None.
The interpersonal communication course is an overview of theory and research on human communication. The course is designed with the opportunity to improve students communication skills in a variety of communication contexts. This course includes skill practices, oral presentations, and videotaping as instructional tools. (Formerly SPCH 12)
Transfer Credit: CSU; UC

**SPCH 130**
**FUNDAMENTALS OF SPEAKING 3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent or SPCH 60 or equivalent with a grade of Credit or “C” or higher.
This course focuses on the student's communication of ideas and concepts in various audience settings with emphasis on message organization, supporting amplifying materials, and analysis of audience diversity. Videotape is used as an evaluative tool. (Formerly SPCH 2)
Transfer Credit: CSU; UC

**SPCH 132**
**FUNDAMENTALS OF SMALL GROUP COMMUNICATION 3 UNITS**
Class hours: 3 lecture and evaluation
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
As an introduction to the fundamentals of group discussion, this course focuses on the individual's communication in a small group setting; leadership in groups; group communication norms and processes with emphasis on problem solving and conflict reduction techniques. Videotape is used as an evaluative tool. (Formerly SPCH 7)
Transfer Credit: CSU; UC

**SPCH 140**
**ORAL INTERPRETATION OF LITERATURE 3 UNITS**
Class hours: 3 lecture
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent or SPCH 60 or equivalent with a grade of Credit or “C” or higher.
This course focuses on the analysis and interpretation of both prose and verse literature,
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including study of voice production, structure and content of literature, and techniques of effective oral communication of meaning from the printed page. (Formerly SPCH 4.1)
Transfer Credit: CSU; UC

**SPCH 145**
**STORYTELLING** 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is an introduction to the history of storytelling and the techniques of listening, preparation, and the presentation of stories to various age groups and in various settings. Students acquaint themselves with various literary genres—folk tales, sagas, epics, legends, myths, poetry, and drama. Videotape is used as an evaluative tool. (Formerly SPCH 10)
Transfer Credit: CSU

**SPCH 160**
**PARLIAMENTARY PROCEDURE** 1 UNIT
Class hours: 2 lecture  (9 weeks)
Prerequisite: None.
This course entails an examination of principles, practices and procedures in formal deliberation. Emphasis is placed on parliamentary law. (Formerly SPCH 6.1)
Transfer Credit: CSU

**SPCH 165**
**GROUP PROCEDURE** 1 UNIT
Class hours: 2 lecture  (9 weeks)
Prerequisite: SPCH 160 or equivalent with a grade of Credit or "C" or higher.
This course addresses leadership functions, techniques of cooperative problem solving, types of organizations, creating new organizations, and informal deliberation. (Formerly SPCH 6.2)
Transfer Credit: CSU

**SPCH 229**
**SPEECH AND LANGUAGE DEVELOPMENT IN CHILDREN** 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to provide the student with materials and experience which will give a better understanding of a child's speech and language development. It is recommended for students majoring in elementary education, preschool and special education, speech pathology, and for teaching assistants. (Formerly SPCH 9)
Transfer Credit: CSU

**SPCH 235**
**FUNDAMENTALS OF ARGUMENTATION AND PERSUASION** 3 UNITS
Class hours: 3 lecture and evaluation
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course focuses on the fundamentals of argumentation and persuasion as used in communication in contemporary society. The student will apply various types of argument and reasoning in an attempt to solve current problems as well as studying how and why people are persuaded. Videotape is used as an evaluative tool. (Formerly SPCH 8)
Transfer Credit: CSU; UC

**SPCH 236**
**BEGINNING FORENSICS WORKSHOP** 1 UNIT
Class hours: 1 lecture/2 lab
Open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course provides students with opportunities to acquire basic oral communication, organizational, and research skills while gaining self-confidence and reducing speaking anxiety. Workshop includes competition at intercollegiate speech and debate tournaments. This course is recommended for all Speech majors. This course may be repeated for a maximum of 4 units. (Formerly SPCH 5.1)
Transfer Credit: CSU

**SPCH 237**
**INTERMEDIATE FORENSICS WORKSHOP** 1 UNIT
Class hours: 1 lecture/2 lab
Open entry/open exit
Prerequisite: None.
Corequisite: SPCH 236.
Recommendation: None.
This course provides students with numerous opportunities to improve oral communication, organizational, and research skills while developing self-confidence and reducing speaking anxiety. Workshop includes competition at intercollegiate speech and debate tournaments, and may also include on-campus and/or community speaking opportunities. Emphasis is on student competition and events development. This course is recommended for all Speech majors. This course may be repeated for a maximum of 4 units. (Formerly SPCH 5.2)
Transfer Credit: CSU

**SPCH 238**
**ADVANCED FORENSICS WORKSHOP** 1 UNIT
Class hours: 1 lecture/2 lab
Open entry/open exit
Prerequisite: None.
Corequisite: SPCH 236 and SPCH 237
Recommendation: None.
This course provides students with numerous opportunities to compete in multiple events at intercollegiate speech and debate tournaments, and also includes on-campus and/or community speaking opportunities. Intensive improvement of oral communication, organizational, and research skills is emphasized, along with commitment to participate in multiple facets of the program. This course, recommended for all Speech majors, develops scholarship, leadership, a strong team ethic, and an appreciation for the academic competitive experience. This course may be repeated for a maximum of 4 units. (Formerly SPCH 5.3)
Transfer Credit: CSU

**SPCH 239**
**FORENSICS WORKSHOP** 2 UNITS
Class hours: 1 lecture, 3 lab
Prerequisite: None.
Any person anxious to develop verbal confidence is encouraged to enroll in the Forensic Workshop. Workshop includes speaking opportunities before audiences at Intercollegiate speech tournaments and community organizations such as Kiwanis, Lions, Rotary, etc. This course may be taken for a maximum of 8 units. (Formerly SPCH 5)
Transfer Credit: CSU

**SPCH 240**
**ORAL INTERPRETATION: READERS' THEATRE** 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course offers further study of oral interpretation principles emphasizing dramatic literature through preparation and performance of a Readers' Theater production. Videotape is used as an evaluative tool. (Formerly SPCH 4.2)
Transfer Credit: CSU; UC

**SPCH 271**
**VOICE AND ARTICULATION** 3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to help the student learn how voice and speech are produced by a study of anatomy and physiology of the speech and hearing mechanism and to learn

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how to use these mechanisms effectively and efficiently for oral communication. Students will learn phonetic transcription skills using the International Phonetic Alphabet (IPA) to assist their work on their own communication skills emphasizing precise articulation. Distinctive features of loudness, rate, pitch variation, vocal variety and controlled respiratory patterns will also be studied. (Formerly SPCH 271)

SLP 120

PHONETICS LAB 1 UNIT
Class hours: 3 lab
Prerequisite: SLP 100 or equivalent with a grade of Credit or “C” or higher.
Corequisite: Concurrent enrollment in or completion of SPCH 271.
Recommendation: None.
This is a skills lab designed to provide the student with practice in phonetic transcription skills. Students will transcribe normal and disordered speech using the International Phonetic Alphabet (IPA) for broad transcription. Linguistic variations and regional dialects will be addressed. This course may be taken for a maximum of three units.
Transfer Credit: CSU

SLP 125

CHILDHOOD DISORDERS AND TREATMENT 5 UNITS
Class hours: 4 lecture/3 lab
Prerequisite: SLP 100 and SLP 110 or equivalents with grades of Credit or “C” or higher.
Corequisite: None.
Recommendation: A&P 120 or equivalent with grade of Credit of “C” or higher.
This course focuses on screening procedures and treatment interventions used for speech, language and hearing disorders in children in educational and healthcare settings. The student will learn to use observational checklists, administer screening assessment tests and complete related therapeutic protocol forms.
Transfer Credit: CSU

SLP 230

ADAPTIVE COMMUNICATION TECHNOLOGY 1.5 UNITS
Class hours: 1.5 lecture/0.5 lab
Prerequisite: Completion of SLP 100 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course introduces the student to the needs of non-oral children and adults, as well as the preparation, use and maintenance of selected adaptive communication equipment. Emphasis is placed on the collaborative use of assistive equipment for speech, language and hearing disorders.
Transfer Credit: CSU

SLP 235

ADULT DISORDERS AND TREATMENT 5 UNITS
Class hours: 4 lecture/3 lab
Prerequisite: SLP 125 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course is a continuation of SLP 125 and includes an introduction to the different clinical settings in which the speech-language pathology assistant may work. The course focuses on screening procedures and treatment interventions used for speech, language, and hearing disorders in adults.
Transfer Credit: CSU

SLP 240

CHILDHOOD FIELD EXPERIENCE 2.5 UNITS
Class hours: 1 lecture/12 lab (9 weeks)
Prerequisite: SLP 120, SLP 125, and SPCH 229 or equivalent with grades of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
The field experience will provide the student with the opportunity to perform speech-language pathology assistant responsibilities with children under appropriate supervision.
Transfer Credit: CSU

SLP 245

ADULT FIELD EXPERIENCE 2.5 UNITS
Class hours: 1 lecture/12 lab (9 weeks)
Prerequisite: SLP 235, SLP 240, and SPCH 229 or equivalent with grades of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
The field experience will provide the student with the opportunity to perform speech-language pathology assistant responsibilities with adults under appropriate supervision.
Transfer Credit: CSU

TECHNICAL MATHEMATICS

(For Additional Courses See Mathematics)

TM 50

TECHNICAL MATHEMATICS 3 UNITS
Class hours: 3 lecture
Prerequisite: MATH 40 or equivalent with a grade of Credit or “C” or higher or satisfactory completion of the Math Placement Process.
Corequisite: None.
Recommendation: None.
This course is an introduction to the principles of algebra, geometry, and basic trigonometry as needed by students planning to work in any area of technology. Topics are covered which have particular emphasis on equations and formulas found in the shop areas and drafting labs. Calculations of area, volume and layout are stressed. Conversions

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between English and metric measurements are introduced. The students will learn to solve right angle trigonometry problems and will learn how to find solutions to oblique triangles using the law of sines and the law of cosines. (Formerly TM 1.2)

**TM 54**
**MATHEMATICS FOR COMPUTER TECHNOLOGY**
4 UNITS
Class hours: 4 lecture
Prerequisite: MATH 40 or equivalent with a grade of Credit or “C” or higher or satisfactory completion of the Math Placement Process.
This course will cover basic arithmetic processes using binary, octal and hexadecimal numbering systems. Systems of binary code such as BCD and ASCII will be introduced. There is an extensive coverage of Boolean algebra postulates, simplification techniques and applications as used in both computer software and hardware design. BASIC, a computer language, will be used to emphasize applications in technology. (Formerly TM 14)

**THEATRE ARTS**
(Fine Arts/Communications Division)

**TH 101**
**INTRODUCTION TO THE THEATRE**
3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This broad survey of the entire theatre field focuses on modern theatre practice and theory. Some historical background is provided. Topics include stage lighting and design, acting and directing, properties and costume, theatre architecture, make-up, career opportunities, and playwriting. (Formerly TH 1)
Transfer Credit: CSU; UC

**TH 102**
**HISTORY OF THE CLASSICAL THEATRE**
3 UNITS
Class hours: 3 lecture
Prerequisite: None
This course is designed to introduce the student to the history and literature of the theatre from ancient times to the Renaissance. The role of theatre in human affairs will be explored, and particular attention will be given to the way theatre shapes—and is shaped by—the cultural, intellectual, and political forces of its time. (Formerly TH 2)
Transfer Credit: CSU; UC

**TH 103**
**HISTORY OF THE MODERN THEATRE**
3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course is designed to introduce the student to the history and literature of the theatre from French Classicism to the 20th Century. The role of theatre in human affairs will be explored, and particular attention will be given to the way theatre shapes—and is shaped by—the cultural, intellectual, and political forces of its time. (Formerly TH 3)
Transfer Credit: CSU; UC

**TH 104**
**HISTORY AND APPRECIATION OF MUSICAL THEATRE**
3 UNITS
Class hours: 3 lecture
Prerequisite: None.
This course introduces the student to the history and literature of the musical theatre from mid-19th century to present day. The course will explore the stylistic distinctions found in the musical as well as its social and cultural significance. Emphasis is placed on the contributions and influence of the individual writer, composer, or lyricist. (Formerly TH 4)
Transfer Credit: CSU; UC

**TH 105**
**INTRODUCTION TO MUSICAL THEATRE TECHNIQUES**
3 UNITS
Class hours: 2 lecture/2 lab, plus 2 hrs arr.
Prerequisite: None.
This course introduces the student to performance and audition techniques for musical theatre. Emphasis is placed on character development through scene study and song analysis, as well as vocal production and psychomotor awareness exercises. This course may be taken for a maximum of 12 units. (Formerly TH 5)
Transfer Credit: CSU; UC

**TH 108**
**IMPROVISATION FOR THE THEATRE**
3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
In this course, students will learn how to act without a script. The focus will be on improvisational performance, but students will also learn how improvisation is used in actor training and as a tool for rehearsing traditional plays. Class members will participate in exercises designed to free their natural ability in all acting situations. This course may be taken for a maximum of 7 units. (Formerly TH 9)
Transfer Credit: CSU; UC

**TH 110**
**FUNDAMENTALS OF ACTING**
3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: None.
This course is an introduction to acting methods and exercises. It is appropriate for the beginner, but it also lays a strong foundation for students who would like to pursue a career in acting. Students will perform regularly on stage, and will learn to analyze scenes and monologues. This course may be taken for a maximum of 7 units. (Formerly TH 10)
Transfer Credit: CSU; UC

**TH 111**
**INTERMEDIATE ACTING TO CHARACTERIZATION**
3.5-UNITS
Class hours: 3 lecture/2 lab
Prerequisite: TH 110 or equivalent with a grade of Credit or “C” or higher.
This is an advanced course in acting methods and practices, with particular focus upon creating exciting, believable characters. Students will learn to find elements from their own lives to use in characterization, and then to explore cultures and walks of life other than their own. (Formerly TH 11)
Transfer Credit: CSU; UC

**TH 114**
**VOICE FOR ACTING**
2 UNITS
Class hours: 2 lecture/1 lab
Prerequisite: None.
This course presents vocal techniques to free and develop the actor's voice. It includes exercises in relaxation, physical awareness, and proper breathing, as well as in the development of diction, range and projection as required for theatrical performance. (Formerly TH 14)
Transfer Credit: CSU; UC

**TH 115**
**STAGE MOVEMENT AND COMBAT**
3 UNITS
Class hours: 3 lecture/1 lab
Prerequisite: None.
This is an introduction to basic stage movement and combat for the actor. Emphasis will be placed on physical and spatial awareness, using movement creatively in characterization, and developing confidence in the physical self. Various stage combat techniques will be covered so that students can fully choreograph their own stage fights. This course may be taken for a maximum of 6 units. (Formerly TH 15)
Transfer Credit: CSU; UC

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### TH 117
**STAND-UP COMEDY**
3 UNITS  
Class hours: 3 lecture/2 lab  
Prerequisite: None.  
Corequisite: None.  
Recommendation: None.  
This is a complete course in stand-up comedy from material development to performance. The student will create a comic persona, write several routines, and perform these routines at venues both on- and off-campus. Field trips to local comedy clubs will be arranged. This course may be taken for a maximum of 6 units. (Formerly TH 17)

### TH 120
**THEATRE STAGECRAFT**  
(CAN DRAM 12)
3 UNITS  
Class hours: 2 lecture/3 lab  
Prerequisite: None.  
This course introduces the student to the principles and basic techniques of theatrical scenery construction. The class will be involved in scene shop procedures and practices, safe tool usage, materials selection, and fabrication methods. (Formerly TH 20)  
Transfer Credit: CSU; UC

### TH 123
**STAGE MAKE-UP**  
(CAN DRAM 14)
3 UNITS  
Class hours: 2 lecture/3 lab  
Prerequisite: None.  
This course provides instruction in techniques of theatrical make-up. Crew assignments in college productions are required. This course may be taken for a maximum of 6 units. (Formerly TH 23)  
Transfer Credit: CSU; UC

### TH 130A
**REHEARSAL AND PERFORMANCE I**  
1 UNIT  
Class hours: 0.5 lecture/2.5 lab  
Prerequisite: By audition.  
Corequisite: None.  
Recommendation: None.  
Students in this course will rehearse and perform a major theatrical production. Students should contact the Theatre Department for a schedule of audition dates. This particular course is for those cast in “minor” roles. The course may be taken for a maximum of 4 units. (Formerly TH 30.1)  
Transfer Credit: CSU; UC

### TH 130B
**REHEARSAL AND PERFORMANCE II**  
2 UNITS  
Class hours: 1 lecture/4 lab  
Prerequisite: By audition.  
Corequisite: None.  
Recommendation: None.  
Students in this course will rehearse and perform a major theatrical production. Students should contact the Theatre Department for a schedule of audition dates. This particular course is for those cast in “supporting” roles. The course may be taken for a maximum of 8 units. (Formerly TH 30.2)  
Transfer Credit: CSU; UC

### TH 130C
**REHEARSAL AND PERFORMANCE III**  
3 UNITS  
Class hours: 1 lecture/7 lab  
Prerequisite: By audition.  
Students in this course will rehearse and perform a major theatrical production. Students should contact the Theatre Department for a schedule of audition dates. This particular course is for those cast in “major” roles. The course may be taken for a maximum of 12 units. (Formerly TH 30/TH 30.3)  
Transfer Credit: CSU; UC

### TH 131A
**THEATRE PRODUCTION I**  
1 UNIT  
Class hours: 0.5 lecture/2.5 lab  
Prerequisite: None.  
Corequisite: None.  
Recommendation: None.  
This course introduces the student to backstage crew skills and duties in connection with the mounting of college plays. The student will be assigned to such running or preparation crews as scenery, lighting, costumes, sound, props, makeup or house management for lab hours. This course may be taken for a maximum of 4 units. (Formerly TH 31.1)  
Transfer Credit: CSU; UC

### TH 131B
**THEATRE PRODUCTION II**  
2 UNITS  
Class hours: 1 lecture/5 lab  
Prerequisite: None.  
This course introduces the student to technical theatre work in connection with the mounting of college plays. Emphasis is on the design and preparation of scenery, lighting, costume, sound, props, and makeup. Students may also be assigned to a running crew for some of their lab hours. This course may be taken for a maximum of 8 units. (Formerly TH 31/TH 31.2)  
Transfer Credit: CSU; UC

### TH 135
**SHOWCASE**  
1 UNIT  
Class hours: 1 lecture  
Prerequisite: None.  
This course will offer weekly programs dealing with all aspects of theatre. Included will be guest speakers from the industry, special presentations by faculty, and showcases of student work. This course may be taken for a maximum of 4 units. (Formerly TH 35)  
Transfer Credit: CSU; UC

### TH 136
**COMMUNITY THEATRE PRODUCTION**  
2 UNITS  
Class hours: 1.5 lecture/1.5 lab  
Prerequisite: None.  
In this course students prepare one-act plays, “story theatre” programs, or improvisational performances, which are taken on tour and performed for community organizations and schools. This course may be taken for a maximum of 8 units. (Formerly TH 36)  
Transfer Credit: CSU

### TH 140
**THEATRE DANCE—BEGINNING JAZZ FREESTYLE**  
2 UNITS  
Class hours: 4 activity  
Prerequisite: None.  
This course is an introduction to jazz dance styles and techniques. Emphasis is on mastering the fundamental skills basic to jazz dance technique and artistic performance. This course may be taken for a maximum of 4 units. (Formerly TH 40)  
Transfer Credit: CSU; UC

### TH 141
**THEATRE DANCE—INTERMEDIATE JAZZ FREESTYLE**  
2 UNITS  
Class hours: 4 activity  
Prerequisite: TH 140 or equivalent with a grade of Credit or “C” or higher.  
This course is a continuation of the development of jazz dance techniques and style begun in TH 140. Emphasis is on mastery of more complicated jazz dance combination patterns and their performance. This course may be taken for a maximum of 4 units. (Formerly TH 41)  
Transfer Credit: CSU; UC

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TH 142  
THEATRE DANCE—BEGINNING TAP  2 UNITS  
Class hours: 4 activity  
Prerequisite: None.  
This course is an introduction to basic tap dance techniques and styles. Emphasis is on mastery of basic tap dance steps, rhythms, combination patterns and their performance. This course may be taken for a maximum of 4 units. (Formerly TH 42)  
Transfer Credit: CSU; UC

TH 143  
THEATRE DANCE—INTERMEDIATE TAP  2 UNITS  
Class hours: 4 activity  
Prerequisite: TH 142 or equivalent with a grade of Credit or “C” or higher.  
This course is a continuation of the development of tap dance techniques and style begun in TH 142. Emphasis is on mastery of more complicated tap dance steps, rhythms, combination patterns and their performance. This course may be taken for a maximum of 4 units. (Formerly TH 43)  
Transfer Credit: CSU; UC

TH 144  
MUSICAL THEATRE WORKSHOP  3 UNITS  
Class hours: 2 lecture/14 lab  (9 weeks)  
Prerequisite: By audition.  
This course involves participation in a major Theatre Department musical production. Activities include singing, dancing, acting, and playing of musical instruments. This course may be taken for a maximum of 6 units. (Formerly TH 44)  
Transfer Credit: CSU; UC

TH 145  
COSTUME PRODUCTION FOR DANCE  1 UNIT  
Class hours: 1 lecture/3 lab  (9 weeks)  
Prerequisite: None.  
This course introduces the student to the fabrication of costume elements including patterning, machine sewing, hand sewing, dyeing, and decoration for dance. This course may be taken for a maximum of 4 units. (Formerly TH 45)  
Transfer Credit: CSU; UC

TH 150  
APPRECIATION AND HISTORY OF THE MOTION PICTURE  3 UNITS  
Class hours: 3 lecture  
Prerequisite: None.  
This course examines the art of motion pictures and their impact upon society. It includes the viewing and critical analysis of feature films in various thematic categories. (Formerly TH 50)  
Transfer Credit: CSU; UC

TH 151  
MOTION PICTURES, RADIO AND TELEVISION  3 UNITS  
Class hours: 3 lecture  
Prerequisite: None.  
This is a broad survey of the history, theory, and production techniques of motion pictures, radio, and television, with emphasis on the form, content, and social impact of each. Students will participate in at least one field trip to a motion picture, radio, or television studio. (Formerly TH 51)  
Transfer Credit: CSU

TH 152  
INTRODUCTION TO BROADCASTING  3 UNITS  
Class hours: 3 lecture  
Prerequisite: None.  
An introduction to the basic phases of radio and television broadcasting. This course covers historical, legal, and practical aspects of broadcasting. Students will learn microphone and camera techniques, the use of audio and video tape, studio procedure, and stage staffing as well. Field trips to radio and television facilities are included. (Formerly TH 52)  
Transfer Credit: CSU

TH 153  
MOTION PICTURE PRODUCTION  3 UNITS  
Class hours: 2 lecture/4 lab  
Prerequisite: None.  
This is an introductory course in the elements of motion picture production. Students create short films in the Super 8 mm. format. (Formerly TH 53)  
Transfer Credit: CSU

TH 154  
VIDEO PRODUCTION  3 UNITS  
Class hours: 1 lecture/5 lab  
Prerequisite: None.  
This class provides practice in basic video production and editing. The focus will be on field video production and off-line digital editing. Students will create video projects, work in teams, and learn about producing, directing, camera operation, and post-production of video. This course may be taken for a maximum of 12 units. (Formerly TH 56)  
Transfer Credit: CSU

TH 155  
MULTICULTURAL FILM  3 UNITS  
Class hours: 3 lecture/2 lab  
Prerequisite: None.  
Recommendation: None.  
This is a survey course on the art and social impact of the film director. Through a series of collective film screenings, lectures, and discussions, students will analyze individual filmmakers. This course may be taken for a maximum of 6 units. (Formerly TH 59)  
Transfer Credit: CSU; UC

TH 156  
GREAT FILM DIRECTORS  3 UNITS  
Class hours: 3 lecture/1 lab  
Prerequisite: None.  
Corequisite: None.  
Recommendation: None.  
This is a survey course on the art and social impact of the film director. Through a series of collective film screenings, lectures, and discussions, students will analyze individual filmmakers. This course may be taken for a maximum of 6 units. (Formerly TH 60)  
Transfer Credit: CSU

TH 157  
SCENE STUDY  3.5 UNITS  
Class hours: 3 lecture/2 lab  
Prerequisite: TH 110 or equivalent with a grade of Credit or “C” or higher.  
Corequisite: None.  
Recommendation: None.  
This is a study and practice of production and departments involved in radio broadcasting. Students make actual broadcasts and recordings and are responsible for staffing and some programming of the campus radio station WPMD, 1700 AM. This course may be taken for a maximum of 12 units. (Formerly TH 55)  
Transfer Credit: CSU

TH 158  
THEATRE DANCE—ADVANCED TAP  2 UNITS  
Class hours: 4 activity  
Prerequisite: TH 143 or equivalent with a grade of Credit or “C” or higher.  
This course is the advanced level of tap dance techniques and style begun in TH 143. Emphasis is on mastery of more complicated tap dance steps, rhythms, combination patterns and their performance. This course may be taken for a maximum of 4 units. (Formerly TH 46)  
Transfer Credit: CSU; UC

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TH 213
HISTORICAL STYLES
OF ACTING  3.5 UNITS
Class hours: 3 lecture/2 lab
Prerequisite: TH 110 or equivalent with a grade of Credit or "C" or higher.
In this course students will learn acting methods and styles needed to perform in plays written before the 19th century. These may include plays from ancient Greece, Commedia dell'Arte, Shakespeare and his contemporaries, the Spanish Golden Age, English Restoration, French neoclassicism, Moliere, and 18th century authors of various nationalities. Students will also explore vocal production, movement patterns, costumes, and social modes and manners for each period. Courses taken for a maximum of 6 units. (Formerly TH 13)
Transfer Credit: CSU; UC

TH 216
ACTING FOR THE CAMERA  3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: TH 110 or equivalent with a grade of Credit or "C" or higher.
Corequisite: None.
Recommendation: None.
This course is designed for the experienced acting student to adapt stage acting techniques for the motion picture and television camera. Emphasis will be placed on gaining an understanding of camera shots, angles, the shooting process, auditioning and actor behavior in front of the camera. This course may be repeated for a maximum of 6 units. (Formerly TH 16)
Transfer Credit: CSU

TH 221
COSTUMING FOR THE STAGE  3 UNITS
Class hours: 2 lecture/3 lab
Prerequisite: None.
This course introduces the student to the principles and methods of costume crafts for stage purposes. Although design and construction are accentuated, the approach to costuming for the stage is underscored by an historical perspective. This course may be taken for a maximum of 6 units. (Formerly TH 21)
Transfer Credit: CSU; UC

TH 222
STAGE LIGHTING  3 UNITS
Class hours: 2 lecture/3 lab
Prerequisite: None.
This course introduces the student to the theory and practice of modern stage lighting. Emphasis is placed on the design and function of lighting equipment and control systems, as well as color theory, the historical perspective, and hands-on experience. (Formerly TH 22)
Transfer Credit: CSU; UC

TH 226
INTRODUCTION TO SCENIC DESIGN  2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
This course introduces the student to the basic principles and techniques of scenic design for the theatre. The class will be involved in the conceptualization, analysis, and actual exploration of the design process. Emphasis will be placed on the development of the individual's design capabilities and a knowledge of contemporary design approaches. (Formerly TH 26)
Transfer Credit: CSU; UC

TH 254
ADVANCED MOTION PICTURE PRODUCTION  3 UNITS
Class hours: 2 lecture/4 lab
Prerequisite: TH 153 or equivalent with a grade of Credit or "C" or higher.
This is an advanced course in the elements and practice of motion picture production in super 8mm film. Students create and direct advanced motion picture projects. (Formerly TH 54)
Transfer Credit: CSU

TH 258
WRITING FOR MOVIES AND TELEVISION  3 UNITS
Class hours: 3 lecture
Prerequisite: ENGL 52 or equivalent with a grade of Credit or "C" or higher.
This course teaches the principles and practice of short-form writing for motion pictures and television. Feature length and television. Feature length and short screenplays will be developed in class. Dramatic and television programs will be analyzed and evaluated for their story structure. This course may be taken for a maximum of 6 units. (Formerly TH 58)
Transfer Credit: CSU

TPYING/ KEYBOARDING
SEE BASS (Business Administrative Support Systems)
Announcement of Courses

**WELD 52**
**PIPE WELDING FUNDAMENTALS 4 UNITS**  
Class hours: 2 lecture/6 lab  
Prerequisite: WELD 210L or equivalent with a grade of Credit or “C” or higher or current Los Angeles City or AWS certification for structural steel.

This advanced welding course is designed to utilize previously acquired welding skills and techniques on ferrous pipe in the rotated and fixed positions. Emphasis is placed on the welding of open groove pipe joints using the shielded metal arc welding (SMAW) process. Subjects covered will include joint preparation, alignment techniques, pre-heat and inter-pass temperatures, and post-heat requirements. Pipe flanges and fittings will be identified as to alloy content and applicable welding procedures. (Formerly WELD 40)

**WELD 53**
**PIPE LAYOUT 2 UNITS**  
Class hours: 1 lecture/3 lab  
Prerequisite: WELD 120 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.

This advanced welding course emphasizes practical techniques of pipe layout, terminology, use of layout tools, fittings, offset tie-ins, and rolled offset tie-in of parallel pipelines. Instruction in more advanced layout techniques will cover layout of calculated fittings involving pipelines of unequal sizes and compound offset tie-in fittings. (Formerly WELD 41)

**WELD 54L**
**ADVANCED PIPE WELDING 2 UNITS**  
Class hours: 6 lab  
Prerequisite: WELD 52 or equivalent with a grade of Credit or “C” or higher.

This is a course designed to refine the student’s previously acquired pipe welding skills and prepare the student to pass a certification test in pipe welding. Emphasis is placed on welding ferrous pipe in the horizontal fixed (5G) and 45 degree inclined (6G) positions, using the shielded metal arc (SMAW), gas metal arc (GMAW), and gas tungsten arc (GTAW) welding processes. This course may be taken for a maximum of 4 units. (Formerly WELD 43)

**WELD 55**
**MAINTENANCE WELDING 2 UNITS**  
Class hours: 1 lecture/3 lab  
Prerequisite: WELD 100 or WELD 110 and WELD 120 or equivalent with grades of Credit or “C” or higher, or appropriate work experience.

Corequisite: None.  
Recommendation: None.  
This advanced course develops the techniques of maintenance welding including terminology, metal identification, heat treating, and welding of dissimilar metals. Emphasis is placed on following welding procedures as they relate to the job. (Formerly WELD 48)

**WELD 100**
**WELDING FUNDAMENTALS 2 UNITS**  
Class hours: 1 lecture/3 lab  
Prerequisite: None.

This is an introductory course designed to familiarize the student with the welding trade. Emphasis is placed on technical and practical applications of shielded metal arc, oxy-acetylene, gas metal arc, and gas tungsten arc welding processes as well as safety, weld testing, and the effects of welding heat on metals. (Formerly WELD 10)  
Transfer Credit: CSU

**WELD 110**
**OXYACETYLENE WELDING 4 UNITS**  
Class hours: 2 lecture/6 lab  
Prerequisite: None.

This is an introductory course with emphasis on welding, brazing, braze welding, and flame cutting using the oxy-acetylene process for metals. (Formerly WELD 12)  
Transfer Credit: CSU

**WELD 120**
**BEGINNING ARC WELDING 4 UNITS**  
Class hours: 2 lecture/6 lab  
Prerequisite: None.

Corequisite: None.  
Recommendation: WELD 100 or WELD 110 or equivalent with a grade of Credit or “C” or higher or concurrent enrollment, or appropriate work experience.

This is a course designed for the beginning student welder covering the technical and practical aspects of the shielded metal arc welding (SMAW), gas metal arc welding (GMAW), flux cored arc welding (FCAW) and submerged arc welding (SAW) processes. Welding may be done in all positions on carbon steels. Emphasis is also placed on the operation of manual and semi-automatic oxyacetylene flame cutting equipment. (Formerly WELD 14)  
Transfer Credit: CSU

**WELD 130**
**GAS TUNGSTEN ARC WELDING FUNDAMENTALS 4 UNITS**  
Class hours: 2 lecture/6 lab  
Prerequisite: None.

Corequisite: None.  
Recommendation: WELD 100 or WELD 120 or equivalent with a grade of Credit or “C” or higher or concurrent enrollment, or appropriate work experience.

This is a course designed to provide the student with technical and practical welding skills on ferrous and non-ferrous metals, using the gas tungsten arc welding process (GTAW) commonly known as TIG. Related classroom instruction covers technical data pertaining to this welding process. (Formerly WELD 25)  
Transfer Credit: CSU

**WELD 170**
**STRUCTURAL FABRICATION 2 UNITS**  
Class hours: 2 lecture/6 lab  
Prerequisite: WELD 100 or WELD 120 or equivalent with a grade of Credit or “C” or higher.

Corequisite: None.  
Recommendation: WELD 50 or equivalent with a grade of Credit or “C” or higher.  
This is a course designed to develop welding skills and structural fabrication techniques on real or simulated metal construction projects. Emphasis will be on the safe operation of fabricating equipment as applied to structural steel components. (Formerly WELD 17)  
Transfer Credit: CSU

**WELD 200**
**INTERMEDIATE ARC WELDING 4 UNITS**  
Class hours: 2 lecture/6 lab  
Prerequisite: WELD 120 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.

Corequisite: None.  
Recommendation: None.

This is a course designed to refine the student’s previously acquired welding skills and prepare the student to pass welding certification tests. Emphasis is placed on welding in the vertical and overhead positions and the welding of alloy steels with compatible filler metals using the shielded metal arc (SMAW), gas metal arc (GMAW), flux cored arc (FCAW), and submerged arc (SAW) welding processes. Related classroom instruction is given in the technical data pertaining to these processes. (Formerly WELD 20)  
Transfer Credit: CSU

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
WELD 210L
ADVANCED ARC WELDING 2 UNITS
Class hours: 6 lab
Prerequisite: WELD 200 or equivalent with a grade of Credit or “C” or higher.
This advanced welding course is designed to prepare the student welder for structural steel welding certifications using the SMAW (Shielded Metal Arc Welding) and FCAW (Flux Cored Arc Welding) processes. This course may be taken for a maximum of 4 units. (Formerly WELD 30)
Transfer Credit: CSU

WELD 220
CERTIFICATION AND LICENSING FOR WELDERS 2 UNITS
Class hours: 2 lecture
Prerequisite: WELD 200 or equivalent with a grade of Credit or “C” or higher or concurrent enrollment, or appropriate work experience. Corequisite: None. Recommendation: None.
This is a technical course for the advanced welding student. Material covered will include data on all approved modern welding processes, welding filler metals, approved weld joint design, and welding procedures. Special emphasis will be placed on welding symbols and American Welding Society (AWS) Structural Code specifications leading to Los Angeles City and AWS welding certifications. (Formerly WELD 33)
Transfer Credit: CSU

WELD 240
ADVANCED GAS TUNGSTEN ARC WELDING LABORATORY 2 UNITS
Class hours: 6 lab
Prerequisite: WELD 130 or equivalent with a grade of Credit or “C” or higher.
This is an advanced welding course using the gas tungsten arc welding (GTAW) process. This course is designed to further develop the skills of the student in this process. Special emphasis is placed on the welding of ferrous and non-ferrous metals in the vertical position. This course may be taken for a maximum of 4 units. (Formerly WELD 38)
Transfer Credit: CSU

WELD 250L
GAS TUNGSTEN ARC WELDING SPECIALTY LAB 2 UNITS
Class hours: 6 lab
Prerequisite: WELD 240 or equivalent with a grade of Credit or “C” or higher.
This advanced course is designed to further increase the manipulative skills and technical knowledge of the student welder using the gas tungsten arc welding (GTAW) process on .020” to .030” thickness metals as well as welding the root bead on high pressure pipe. All welding samples will comply with standards set by the American Welding Society or industry. This course may be taken for a maximum of 4 units. (Formerly WELD 46)
Transfer Credit: CSU

WOODWORKING MANUFACTURING TECHNOLOGIES
(Technology Division)

WMT 1 (Not degree applicable)
OPEN ENTRY/EXIT WOODWORKING 0 UNIT
Class hours: 3 hrs. arr.
Open entry/open exit
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This open entry/exit course is designed to provide between semester access to the woodworking program for students to develop, enhance, and refine their woodworking skills. Students are accepted into existing courses on a space-available basis dependent on the student’s skills and needs and can exit when their individual goals have been met. This course is intended to facilitate basic fundamental skills for entry level employment. This course may be taken until the end of the semester or 360 instructional hours, whichever comes first. (Formerly WMT 10)
Transfer Credit: CSU

WMT 101
INTRODUCTION TO WOODWORKING 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: None.
This introductory woodworking course acquaints the students with the essential principles of woodworking. Topics include wood technology, use of hand tools, portable power tools, and basic machinery. Emphasis is placed on proper technique, safety, and shop policies for the woodworking facility. (Formerly FMT 1/WMT 10.1)
Transfer Credit: CSU

WMT 102
MACHINE WOOD TECHNOLOGY 4 UNITS
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 101 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course increases the student’s skill in the use of hand tools, portable power tools, and machinery. Topics include wood technology, use of hand tools, portable power tools, and basic machinery. Emphasis is placed on proper technique, safety, and shop policies for the woodworking facility. (Formerly FMT 1/WMT 10.1)
Transfer Credit: CSU

WMT 103
MACHINE WOOD TECHNOLOGY II 4 UNITS
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 101 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course increases the student’s skill in the use of hand tools, portable power tools, and machinery. The course will examine wood technology as it pertains to panel construction, expanding specific job skills. In the process of doing so, it creates greater communication with increased understanding between the student/workers, the college and the employer/trainers. Students also pursue a program of self-evaluation to determine individual job weaknesses and strengths. Semester projects that relate to their major and job skills must be completed on the job/training site. These courses may be taken for a maximum of 15-16 units. (Formerly WMT 73/74)
Transfer Credit: CSU

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WOOD TURNING 2 UNITS
WMT 118
Transfer Credit: CSU

WOODWORKING LAB 1 UNIT
WMT 111L
Introduction to Woodworking Lab 1 Unit
Class hours: 3 lab
Prerequisite: WMT 101 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course provides the student who has completed WMT 101 the opportunity to hone and refine skills and complete projects required in the prerequisite course. This course may be taken for a total of 4 units. (Formerly WMT 11.1)
Transfer Credit: CSU

WOOD TURNING 2 UNITS
WMT 118
Class hours: 1 lecture/3 lab
Prerequisite: None.
Corequisite: None.
Recommendation: WMT 101 and WMT 102 or WMT 103 or equivalents with grades of Credit or “C” or higher.
This course introduces students to the methods, tools, materials, and machinery used in wood turning. Students have the opportunity to create turned projects using the woodworking lathe. This course may be taken for a maximum of 4 units. (Formerly WMT 11.8)
Transfer Credit: CSU

CHAIR DESIGN AND CONSTRUCTION 4 UNITS
WMT 132
Class hours: 2 lecture/6 lab
Prerequisite: WMT 103 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course is a course in chairmaking for the advanced Woodworking Manufacturing Technology student. It includes the basic techniques of design, construction and production of chairs. The student will design and build both wood and exposed wood frame chairs. This course may be taken for a maximum of 8 units. (Formerly FMT 32/WMT 13.2)
Transfer Credit: CSU

FRAME MAKING 4 UNITS
WMT 134
Class hours: 2 lecture/6 lab
Prerequisite: WMT 103 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course introduces the fundamental principles and techniques of frame making for upholstered furniture. Topics include design, engineering, layout, machine woodturning and frame assembly. This course may be taken for a maximum of 8 units. (Formerly WMT 13.4)
Transfer Credit: CSU

OUTDOOR FURNITURE 2.5 UNITS
WMT 137
Class hours: 2 lecture/2 lab
Prerequisite: WMT 101 and WMT 102 or WMT 103 or equivalents with grades of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course instructs students in the design and construction of outdoor furniture. Projects include tables, chairs, benches, lounges, stands and umbrellas. This course may be taken for a maximum of 10 units. (Formerly WMT 13.7)
Transfer Credit: CSU

FURNITURE MAKING AND MANUFACTURING 4 UNITS
WMT 148
Class hours: 2 lecture/6 lab
Prerequisite: WMT 103 or equivalent with a grade of Credit or “C” or higher, or appropriate work experience.
Corequisite: None.
Recommendation: None.
This course introduces the student to the methods, materials, tools, and machinery used in the manufacturing and installation of architectural millwork. Classroom topics include the history, design, fabrication, and safe use of woodworking machinery and materials involved in cabinet construction. (Formerly FMT 97.01/WMT 15.1)
Transfer Credit: CSU

ARCHITECTURAL MILLWORK 4 UNITS
WMT 155
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 151 or equivalent with a grade of Credit or “C” or higher.
In this course the student learns the foundational information and skills related to the 32mm system of cabinet manufacturing. It includes review of the system with hands-on experience in product design and layout of boring patterns, including machine operation in building 32mm cabinets. (Formerly FMT 14/WMT 15.3)
Transfer Credit: CSU

ARCHITECTURAL MILLWORK 4 UNITS
WMT 155
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 151 or equivalent with a grade of Credit or “C” or higher.
This course teaches basic elements of production furniture design, prototype building, and product evaluation. The course acquaints the student with all phases of furniture production as a profession. Students design, build, and test market furniture samples from which items will be selected for manufacturing in the production furniture making and manufacturing course (WMT 24.8). This course may be taken for a maximum of 8 units. (Formerly FMT 35/WMT 14.8)
Transfer Credit: CSU

INTRODUCTION TO CABINETMAKING 4 UNITS
WMT 151
Class hours: 2.5 lecture/5.5 lab
Prerequisite: None.
Corequisite: None.
Recommendation: None.
This course introduces the student to the methods, materials, tools, and machinery used in the construction of traditional and European cabinetry. Classroom topics include the history, design, fabrication, and safe use of woodworking machinery and materials involved in cabinet construction. (Formerly FMT 97.01/WMT 15.1)
Transfer Credit: CSU

INTRODUCTION TO CABINETMAKING 4 UNITS
WMT 151
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 151 or equivalent with a grade of Credit or “C” or higher.
In this course the student learns the foundational information and skills related to the 32mm system of cabinet manufacturing. It includes review of the system with hands-on experience in product design and layout of boring patterns, including machine operation in building 32mm cabinets. (Formerly FMT 14/WMT 15.3)
Transfer Credit: CSU

ARCHITECTURAL MILLWORK 4 UNITS
WMT 155
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 151 or equivalent with a grade of Credit or “C” or higher.
This course teaches basic elements of production furniture design, prototype building, and product evaluation. The course acquaints the student with all phases of furniture production as a profession. Students design, build, and test market furniture samples from which items will be selected for manufacturing in the production furniture making and manufacturing course (WMT 24.8). This course may be taken for a maximum of 8 units. (Formerly FMT 35/WMT 14.8)
Transfer Credit: CSU

WMT 153
INTRODUCTION TO CABINETMAKING 4 UNITS
WMT 153
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 151 or equivalent with a grade of Credit or “C” or higher.
This course teaches basic elements of production furniture design, prototype building, and product evaluation. The course acquaints the student with all phases of furniture production as a profession. Students design, build, and test market furniture samples from which items will be selected for manufacturing in the production furniture making and manufacturing course (WMT 24.8). This course may be taken for a maximum of 8 units. (Formerly FMT 35/WMT 14.8)
Transfer Credit: CSU

ARCHITECTURAL MILLWORK 4 UNITS
WMT 155
Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 151 or equivalent with a grade of Credit or “C” or higher.
This course teaches basic elements of production furniture design, prototype building, and product evaluation. The course acquaints the student with all phases of furniture production as a profession. Students design, build, and test market furniture samples from which items will be selected for manufacturing in the production furniture making and manufacturing course (WMT 24.8). This course may be taken for a maximum of 8 units. (Formerly FMT 35/WMT 14.8)
Transfer Credit: CSU
include the history, design, fabrication, installation, and safe use of woodworking machinery and materials involved in architectural millwork and finished carpentry. This course may be taken for a maximum of 8 units. (Formerly FMT 97.03/WMT 15.5) Transfer Credit: CSU

**WMT 202**

**ADVANCED MACHINE WOOD TECHNOLOGY** 4 UNITS

Class hours: 2 lecture/6 lab
Prerequisite: WMT 103 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course in advanced machine woodworkings is designed to extend to the student an opportunity to increase skills in the use of machine woodworking tools and expand understanding of wood technology. This course may be taken for a maximum of 8 units. (Formerly FMT 22/WMT 20.2) Transfer Credit: CSU

**WMT 229L**

**COMPREHENSIVE WOODWORKING MANUFACTURING SPECIALTY** 2.5 UNITS

Class hours: 8 lab
Prerequisite: WMT 102 or WMT 103 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course allows students to perfect and hone skills acquired during previous comprehensive woodworking courses. In this lab, students will design and construct a project of their choice that is relevant to the subject matter being taught. This course may be taken for a maximum of 12.5 units. (Formerly WMT 22.9) Transfer Credit: CSU

**WMT 233**

**MORRIS CHAIR** 4 UNITS

Class hours: 2.5 lecture/5.5 lab
Prerequisite: WMT 101, WMT 102 and WMT 103 or equivalents with grades of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course in furniture making will challenge and improve the student’s skills through the manufacturing of a historical chair, the Morris Chair. Hand tools, machinery and hand power tools are used in an advanced setting. Topics include planning, manufacturing, utilizing solid wood joinery, complex laminations, subassembly and final assembly as well as finishing. The class focuses on the history and design of the Morris Chair, the first recliner. This course may be taken for a maximum of 12 units. Transfer Credit: CSU

**WMT 248**

**PRODUCTION FURNITURE MAKING AND MANUFACTURING** 4 UNITS

Class hours: 2 lecture/6 lab
Prerequisite: WMT 148 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
The course enables the students to work as a team in the manufacturing of a limited edition of student-designed furniture items. All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.
Announcement of Courses

WMT 249L
FURNITURE MANUFACTURING SPECIALTY 2.5 UNITS
Class hours: 8 lab
Prerequisite: WMT 101 and WMT 102 or WMT 103 or equivalents with grades of Credit or “C” or higher
Corequisite: None.
Recommendation: None.
This course allows students to perfect and hone skills acquired during previous furniture courses. In this lab, students will design and construct woodworking projects that are relevant to the subject matter being taught during the same time period. This course may be taken for a maximum of 10 units.
(Formerly FMT 36/WMT 24.9)
Transfer Credit: CSU

WMT 251
ADVANCED CABINETMAKING 2 UNITS
Class hours: 1 lecture/3 lab
Prerequisite: WMT 153 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course provides the student additional opportunity to increase woodworking skills by the use of machine tools and by the development of projects in the cabinetmaking field. This course may be taken for a maximum of 8 units.
(Formerly FMT 25/WMT 25.1)
Transfer Credit: CSU

WMT 253
ADVANCED 32MM SYSTEM OF CABINETMAKING 3 UNITS
Class hours: 1 lecture/7 lab
Prerequisite: WMT 153 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course increases student skill and knowledge related to the 32mm system of cabinetmaking. Topics include application of business skills as they relate to the cabinetmaking manufacturing industry and advanced 32mm production techniques. This course may be taken for a maximum of 9 units.
(Formerly FMT 24/WMT 25.3)
Transfer Credit: CSU

WMT 268
PRODUCTION CABINETMAKING AND MANUFACTURING 5 UNITS
Class hours: 4 lecture/4 lab
Prerequisite: WMT 153 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course enables the students to work as a team in the design, manufacturing, and installation of cabinets for on-campus use. This course includes instruction in production techniques, materials science, cost estimating, time management, and scheduling. This class may be taken for a maximum of 15 units.
(Formerly FMT 46/WMT 26.8)
Transfer Credit: CSU

WMT 269L
CABINETMAKING MANUFACTURING SPECIALTY 2.5 UNITS
Class hours: 8 lab
Prerequisite: WMT 153 or WMT 155 or equivalent with a grade of Credit or “C” or higher.
This course allows students to perfect and hone skills acquired during previous cabinetmaking courses. In this lab, students design and construct a cabinet project(s) that is relevant to the subject matter being taught during the same time period. This course may be taken for a maximum of 10 units.
(Formerly WMT 26.9)
Transfer Credit: CSU

WMT 269L
CABINETMAKING MANUFACTURING SPECIALTY 2.5 UNITS
Class hours: 8 lab
Prerequisite: WMT 153 or WMT 155 or equivalent with a grade of Credit or “C” or higher.
This course allows students to perfect and hone skills acquired during previous cabinetmaking courses. In this lab, students design and construct a cabinet project(s) that is relevant to the subject matter being taught during the same time period. This course may be taken for a maximum of 10 units.
(Formerly WMT 26.9)
Transfer Credit: CSU

WMT 281
ADVANCED COMPUTER OPERATIONS FOR CABINETMAKING AND DESIGN 2.5 UNITS
Class hours: 2 lecture/2 lab
Prerequisite: WMT 181 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This course provides the student with the advanced skills and knowledge required to better utilize cabinet manufacturing computer systems and software. Classroom topics will include cutting list development, panel optimizing, job/cost estimating, and introduction to catalog writing for software customization. This course may be taken for a maximum of 5 units.
(Formerly FMT 62/WMT 28.1)
Transfer Credit: CSU

WORD PROCESSING
SEE BASS
(Business Administrative Support Systems)

ZOOLOGY
(Science/Engineering/Math Division)

ZOO 120
INTRODUCTION TO ANIMAL BIOLOGY 4 UNITS
Class hours: 2 lecture/6 lab
Prerequisite: Satisfactory completion of the English Placement Process or ENGL 52 or equivalent with a grade of Credit or “C” or higher.
Corequisite: None.
Recommendation: None.
This is a survey course in animal biology. Included are a taxonomic review of major invertebrate and vertebrate groups, animal adaptations and behavior, basic anatomy and physiology (with emphasis on vertebrates), cell biology, reproduction and development, genetics, ecology, and evolution. Laboratory dissection is used to illustrate these principles. This is designed as an entry level course for both majors and non-majors in biology.
(Formerly ZOOL 10)
Transfer Credit: CSU; UC

All courses on this page are Title V Associate Degree applicable/credit courses unless otherwise noted.

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The excellence of a college program is closely related to the excellence of the college faculty. The Cerritos College faculty represents a rich cross-section of scholarship, experience, and above all dedication to teaching. The faculty has helped earn a reputation for Cerritos as one of the finest community colleges in California.

The Faculty Senate of Cerritos College studies and recommends to the administration and Governing Board matters related to academic and professional standards and affairs of the college. The Senate consists of three officers and elected representatives from each of the college's instructional divisions.

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<th>Name</th>
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<th>Degree 2</th>
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<tr>
<td>Ackland, Dean</td>
<td>Instructor</td>
<td>B.S., California State University, Long Beach</td>
<td>M.A., Azusa Pacific</td>
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<td>Anderson, Lowell</td>
<td>Professor</td>
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<td>Arfwedson, Christine</td>
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<td>Ashe, Suzanne</td>
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<td>Assidao, Valentin</td>
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<td>Austin, Anthony</td>
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<td>Bailey, John D.</td>
<td>Professor</td>
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PATRICK, CAROL (1997)
Administrative Dean of Counseling
B.A., University of Michigan
M.A., M.S., San Diego State University

PEEBLES, RANDY (1985)
Instructional Dean, Technology
B.A., M.A., California State University, Long Beach
Ed.D., Pepperdine University

PELLONI, JR., JOHN (1989)
Professor
Cosmetology
A.A., Geneva College, PA
B.A., Union Institute Cincinnati, OH

PERALTA, TRUDY A. (1990)
Professor
English
A.A., Long Beach City College
B.A., M.A., California State University, Long Beach

PERKINS, SHERRY L. (1979)
Professor
Court Reporting
A.A., Cerritos College
B.V.E., California State University, Long Beach

PIERINI, MICHAEL S. (1995)
Instructor
Culinary Arts/Baking
A.A., West Los Angeles College
B.V.E., California State University, Long Beach

PIORKOWSKI, MARJEAN (1977)
Professor
Physical Therapist Assistant Program
A.A., Orange Coast College
B.S., M.S., University of California, Los Angeles

PIRTLE, DIANNE D. (1997)
Instructor
Sociology
B.A., M.A., California State University, Dominguez Hills

PORTIGAL, STEVEN J. (1991)
Associate Professor
Art
B.A., San Fernando Valley State
M.F.A., University of California, Los Angeles

POTTER, INGEBORG (1979)
Professor
German
B.A. M.A., California State University, Fullerton

PRATT, JOAN (1981)
Associate Professor
Nursing Education
B.S.N., Marquette University
M.S.N., California State University, Los Angeles

PRIBBLE, MARY (1984)
Professor
Paralegal
A.A., Citrus College
B.A., Whittier College
M.B.A., California State University, San Bernardino
J.D., Western State University

PRICE, TERRY L. (1975)
Professor
Plastics Technology
A.A., East Los Angeles College
B.A., California State University, Long Beach

PRINDLE, JEANINE V. (1977)
Professor
Health, Physical Education/Athletics
B.A., M.A., California State University, Long Beach
M.Ed., Azusa Pacific University

PRITCHARD, JR., GARY (1999)
Instructor
Music
B.A., Chapman University
M.A., Claremont Graduate School

QUAAS-BERRYMAN, FRANCIE (1999)
Instructor
English
B.A., M.A., California State University, Fullerton

REECE, BRYAN S. (1991)
Associate Professor
Political Science
B.A., M.A., University of Southern California

RENTERIA, ROBERT A. (1975)
Professor
Reading
A.A., East Los Angeles College
B.A., M.A., California State University, Los Angeles
M.S., California State University, Fullerton
Faculty/Educational Administrators

RIGBY, JEFFREY (1991)
Associate Professor
Anthropology
B.A., M.A., University of California, Los Angeles

ROBERTS, LYNDA (1989)
Professor
Childhood Development
A.A., Long Beach Community College
B.A., M.A., California State University, Long Beach

ROBERTSON, CHARLES C. (1994)
Assistant Professor
Automotive Collision Repair
A.A., Cerritos College
A.S., Long Beach City College
B.V.E., California State University, Long Beach

ROBINSON, ELLIS (1983)
Associate Professor
Culinary Arts
A.A., Los Angeles Trade Tech

RODRIGUEZ, PHILIP C. (1974)
Professor
Director of Student Affairs
A.A., Cerritos College
B.A., California State University, Fullerton
M.A., California State University, Dominguez Hills
Ed.D., University of Southern California

ROMER, CHRISTINE (1981)
Associate Professor
Chemistry
B.A., M.A., California State University, Fullerton

ROMERO, VIRGINIA (1980)
Professor/Athletics Counselor
B.A., California State University, Long Beach
M.A., Azusa Pacific University
M.S., California Lutheran College

ROTHER, EDWARD (1989)
Professor
Architecture
B.S., M.Arch., University of Illinois
M.B.A., California State University, Fullerton
Ed.D., University of Southern California

RUSSELL, BARRY (1999)
Instructional Dean, Fine Arts and Communications
B.M., M.M., East Texas State University
Ph.D., University of Texas

RUVALCABA, VYKKI (1992)
Associate Professor
Court Reporting
A.A., Chaffey College
B.A., National University

RYOZAKI, EVELYN (1990)
Professor/Counselor (EOPS)
B.A., University of California, Los Angeles
M.A., California State University, Dominguez Hills

SALAZAR, PHILLIP (1981)
Professor
Counselor
B.A., California State University, Los Angeles
M.A., California State University, Long Beach
M.A., Whittier College

SAMPSON, LYNDA (1989)
Professor
Librarian
B.A., Scripps College
M.L.S., University of Southern California

SANDERSON, JANET (1986)
Professor
Physical Education/Dance
B.A., M.A., California State University, Los Angeles

SARELL, GARY (1985)
Assistant Professor
Mathematics
B.A., California State University, Fullerton
M.A., California State University, Long Beach

SCHAUMBURG, GARY (1970)
Professor
Psychology
A.A., Orange Coast College
B.A., California Western University
M.A., California State University, Long Beach

SCHCHINGER, LINDA S. (1997)
Assistant Professor
Chemistry
A.S., Cypress Community College
B.S., California State University, Long Beach
M.S., Ph.D., University of California, Irvine

SCHMIDT, DEBRA L. (1990)
Associate Professor
Accounting
B.A., California State University, Fullerton

SCOTT, LACRETA (1984)
Associate Professor
English
Pepperdine University
M.A., California State University, Long Beach

SESTINI, SALLY (1986)
Professor
Mathematics
B.A., University of California, Los Angeles
M.S., California State University, Northridge

SEWELL, DONALD (1989)
Professor/Counselor
A.A., Orange Coast College
B.A., California State University, Long Beach
M.A., San Francisco State University
Ed.D., University of Southern California

SHARP, MAGEYA (1983)
Professor
Business Administrative Support Systems
B.A., California State University, Long Beach
M.S., Pepperdine University

SHARPE, DOLLIE ESTELLE (1979)
Instructor
Cosmetology
A.A., Cerritos College
B.V.E., California State University, Long Beach

SHEPHERD, KATHLEEN (1990)
Assistant Professor/Counselor
B.S., California State University, Dominguez Hills
M.A., Loyola Marymount University

SHIMAZU, CHERYL (1989)
Associate Professor
Chemistry
B.A., University of California, Irvine
M.S., California State University, Long Beach

SIMONEK, HAROLD R. (1963)
Professor
Physical Education/Athletics
B.S., M.A., California State Polytechnic University

SMITH, JEFFERY L. (1979)
Instructor
Physical Education/Athletics
B.S., Michigan State University
M.A., Azusa Pacific University

SMITH, RONALD L. (1992)
Instructor
Manufacturing Technology
B.S., California State University, Fresno

SODEN, BARBARA A. READ (1987)
Professor
Office Technologies
B.S., College Misericordia, Dallas, PA
M.S., Marywood College

SOTO, ARMANDO (1998)
Instructor/Counselor
B.A., University of California, Berkeley
M.A., San Diego State University

Instructor
Co-Director of Forensics/Speech Communication
B.A., M.A., University of Southern California
SPETRINO JR., ALBERT A. (1973)
Professor
Disabled Student Programs and Services
B.A., Coe College
M.A., University of Iowa

STAPP, LESLIE E. (1999)
Instructor
Philosophy
M.A., Ph.D., University of California, Davis

STEIN, GERALD (1992)
Associate Professor
Paralegal
B.A., California State University, Long Beach
J.D., Southwestern University School of Law

STEWART, PATRICIA J. (1972)
Professor
Dental Hygiene
A.A., Cerritos College
B.S., California State University, Long Beach
Ph.D., University of Southern California

STILES, LYNN M. (1990)
Associate Professor
English
B.A., M.A., California State University, Long Beach

STORKAN, RUSSELL A. (1965)
Professor
History
B.A., University of California, Los Angeles
M.A., California State University, Los Angeles

STUART, PEGGY J. (1995)
Assistant Professor
Nursing Education
B.S.N. California State University, Long Beach
M.S.N., California State University, Los Angeles

SUGIYAMA, CHRISTINE (1987)
Professor/Counselor
B.A., University of California, Los Angeles
M.A., California State University, Dominguez Hills

SWANSON, JOHN (1992)
Assistant Professor
English
B.A., University of California, Berkeley
M.F.A., University of California, Irvine

SWIFT, ELIZABETH (1987)
Professor
Mathematics
B.A., M.A., California State University, Long Beach

Instructor
Welding
A.A., Cerritos College
B.V.E., California State University, Long Beach

TAYLOR, KEVIN (1992)
Instructor
Automotive Technology
B.A., M.A., California State University, Long Beach

TORRES-OWER, ANA (1992)
Associate Professor
Philosophy
B.A., M.A., California State University, Long Beach

TROUP, JACQUELYN A. (1991)
Instructor
Sociology
B.A., M.A., Pepperdine University

VALENZUELA, RAUL (1989)
Associate Professor/Counselor (EOPS)
B.A., University of California, Irvine
M.S., California State University, Fullerton

WALKER, PAMELA (1996)
Instructional Dean, Physical Education/Athletics
B.S., Eastern Oregon State College
M.A., California State University, Sacramento
Ed.D., University of San Francisco

WALTHER, ROBERT S. (1992)
Professor
Microbiology
B.S., M.S., University of Southwestern Louisiana
M.A., University of California, Los Angeles

WATANABE, SUSAN (1991)
Associate Professor
Theatre Arts
B.A., California State University, Dominguez Hills
M.F.A., University of Southern California

WELL, GEORGIA (1983)
Associate Professor
Theatre Arts
A.A., Bakersfield Junior College
B.A., M.A., California State University, Long Beach

WELLIVER, KAREN M. (1988)
Assistant Professor
Health, Physical Education/Athletics
B.A., M.A., California State University, Long Beach

WELLS, DOUGLAS (1989)
Associate Professor
Physical Education/Athletics
B.S., M.S., University of Utah

WERNER, NEWTON DAVIS (1964)
Professor
Chemistry
A.A., Los Angeles City College
B.S., University of California, Los Angeles
M.S., Ph.D., University of Illinois

WHITE, BRENDA J. (1993)
Instructor
Cosmetology
B.A., Union Institute

WHITSON, BEVERLY (1984)
Professor
English
B.A., M.A., California State University, Fullerton

WILKOFF, HUGH (1962)
Professor
Business
B.A., M.A., University of Notre Dame
J.D., Pepperdine University

WILSON, JACK (1999)
Instructor
Computing and Information Sciences
B.A., M.S., California State University, Fullerton

WISSA, FARID (1988)
Professor
Drafting/Engineering
A.A., Cerritos College
B.V.E., M.A., California State University, Long Beach

WOODS, YVONNE (1991)
Associate Professor
Early Childhood Education
B.A., Pepperdine University
M.A., Pacific Oaks College

WOOLEVER, JAMES D. (1966)
Professor
Business Computer Information Systems
A.A., Cerritos College
B.V.E., California State University, Long Beach
M.S., National University
WRIGHT, FRANK (1965)
Professor
Mathematics/Computer Science
B.S., Illinois State University
M.A., Rutgers University
Ed.D., University of Colorado

YEAGER, MARTHA (1982)
Associate Professor
English as a Second Language
B.A., State University of New York, Buffalo
M.A., Michigan State University

YEE, FRANKLIN (1976)
Professor
Ornamental Horticulture
A.A., Mt. San Antonio College
B.S., California Polytechnic State University, Pomona
M.A., California State University, Long Beach

YOUNG, DAVID A. (1987)
Professor/Counselor
B.A., California State University, Northridge
M.A., University of California, Los Angeles
Ph.D., University of Southern California

YSAIS, REY (1965)
Professor
Mathematics
A.A., East Los Angeles College
B.A., University of California, Riverside
M.A., San Diego State University

ZEWAIL, MERVAT (1984)
Professor
Chemistry
B.S., University of Alexandria, Egypt
Ph.D., University of Pennsylvania

ZIVE, INA (1972)
Professor
Dental Hygiene
A.A.S., New York City Community College
B.A., M.A., California State University, Long Beach
Ed.D., Pepperdine University
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<td>(1959-1992)</td>
<td>Dean of Community/Continuing Education</td>
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<td>Business</td>
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<td>(1965-1984)</td>
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HOFFLUND, CLYDE
(1957-1982)
Drafting

HOLLAND, ROGER
(1976-1992)
Business Administration

HOLMAN, JEAN LEE
(1962-1974)
Cosmetology

HOLSTEGE, MARTIN
(1962-1989)
Mathematics

HUBBELL, SILVIA R.
(1966-1999)
Spanish

HUBRECHT, GLENN
(1975-1991)
Electronics

HUFFMAN, JOAN
(1963-1991)
Biology

HUMISTON, GENEVIEVE
(1957-1960)
Dean of Admissions

HUNTER, FREDERICK
(1973-1988)
Business Education

IKEMOTO, MILDRED
(1967-1992)
Instructional Dean/Health Occupations

INCORVAIA, JOSEPH
(1958-1978)
Business

JACKSON, JOHN
(1957-1991)
Automotive Technology

JANKOWSKI, SHIRLEY
(1975-1990)
College Nurse

JENKINS, SARAH
(1959-1989)
Librarian

JENNINGS, STANLEY
(1957-1985)
History

JEPPESSEN, JACK
(1964-1982)
Economics

JOHNSON, CARL
(1958-1976)
Librarian

JOHNSON, WILLIAM
(1971-1991)
Physical Education

JONES, BETTY LOU
(1965-1989)
Librarian

JONES, MARGIA
(1974-1979)
Business Education

JORDAN, ROBERT
(1960-1989)
Sociology

JULIANO, RICHARD
(1965-1991)
Instruction Dean, HPER/Athletics

KAMANSKI, PAUL DAVID
(1959-1989)
Physical Education

KELDER, JOHN
(1965-1991)
Business Computer Information Systems

KERR, JOSEPH P.
(1963-1966)
Data Processing

KETELLE, WILLIAM
(1975-1992)
Furniture Manufacturing Technology

KINCAID, WALLACE
(1957-1989)
Physical Education

KLEIN, WERNER
(1960-1976)
Dental Assisting

KLEINERMAN, JOSEPH
(1957-1987)
Counselor

KORSMEIER, HENRY F.
(1956-1969)
Assistant Superintendent, Business

LACKMAN, JACK
(1965-1984)
English

LA GUARDIA, PATRICIA
(1973-1998)
Director, Assessment Center

LAHRS, WILLIAM E.
(1965-1983)
Office Occupations

LAIDLAW, RUTH F.
(1964-1986)
Home Economics

LANE, WILMA C.
(1973-1989)
Cosmetology

LANG, JEAN H.
(1972-1989)
Nursing

LANGDON, DEAREST EEN
(1968-1991)
Special Education

LAYTON, DONALD W.
(1962-1989)
Earth Science

LEVI, LINDA
Art

LEWIS, WILLIAM
(1962-1989)
Speech Communications

LITTLETON, OSCAR
(1958-1979)
English

LUCAS, STANLEY
(1976-1991)
Automotive Technology

LUNDGREN, AUSTIN
(1965-1989)
Accounting

MAGNUSON, WALTER C.
(1973-1993)
Vice President of Business Services

MAKI, ROY E.
(1963-1983)
Business

MANIRE, MARGARET V.
(1959-1975)
School Nurse

MANTZ, CONCETTA
(1973-1993)
Sociology
<table>
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<tr>
<th>Name</th>
<th>Years</th>
<th>Department/Designation</th>
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<tr>
<td>Markham, Wendell C.</td>
<td>(1965-1980)</td>
<td>Chemistry</td>
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<tr>
<td>Martin, Lugene</td>
<td>(1957-1989)</td>
<td>Director of Counseling</td>
</tr>
<tr>
<td>Martinez, Orlando</td>
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<td>Spanish</td>
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<td>Mays, Gladys</td>
<td>(1964-1979)</td>
<td>Mathematics</td>
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<td>Chemistry</td>
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<td>Michael, Wilford</td>
<td>(1973-1986)</td>
<td>President-Superintendent</td>
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<td>Miles, Lyman C.</td>
<td>(1965-1983)</td>
<td>Administrative Assistant</td>
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<td>Miller, Robert</td>
<td>(1976-1990)</td>
<td>Administration of Justice</td>
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<td>Mills, Melvin</td>
<td>(1965-1989)</td>
<td>Biology/Anatomy &amp; Physiology</td>
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<td>Montgomery, Donald</td>
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<td>Counselor</td>
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<td>Neff, John</td>
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<td>Anatomy and Physiology</td>
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<td>Newman, Fran</td>
<td>(1972-1992)</td>
<td>Vice President of Student Services</td>
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<td>Neville, Kenneth C.</td>
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<td>Counselor</td>
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<td>Norman, David</td>
<td>(1965-1974)</td>
<td>Data Processing</td>
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<td>Orr, Mildred</td>
<td>(1971-1983)</td>
<td>Office Occupations</td>
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<td>Paige, Dean</td>
<td>(1964-1992)</td>
<td>Instructional Dean, Science/Engineering/Math</td>
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<td>Palmer, John</td>
<td>(1956-1976)</td>
<td>Political Science</td>
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<td>Pinder, Patricia</td>
<td>(1978-1999)</td>
<td>Coordinator of Student Health &amp; Wellness</td>
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<td>Regan, Patricia</td>
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<td>English/Law</td>
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<td>Roberts, Cecil</td>
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<td>Librarian</td>
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<td>Physical Education</td>
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(1965-1986) 
Associate Dean, Student Activities

RODRIGUEZ, ANTONIO  
(1968-1989) 
Speech Communication

ROSIER, RUDOLF  
(1975-1992) 
Baking

SAFERITE, EL WYN  
(1957-1981) 
General Business and Accounting

SANSON, DORIS  
(1961-1979) 
Division Chairman, Health Occupations

SAUCEDO, MARCELINO  
(1972-1993) 
Counselor

SCHUTZ, JOAN  
(1957-1979) 
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SCOTT, DICK  
(1957-1980) 
History

SCOTT, OLIVE P.  
(1959-1986) 
Vice President for Instructional Services

SEELEY, GEORGE  
(1959-1988) 
Physics

SHAW, FRANK  
(1966-1982) 
Administration of Justice

SHAWVER, LOUIS REED  
(1965-1984) 
Industrial Supervision

SHOPFNER, JERRY  
Autobody

SHOWMAN, FRANK  
(1957-1989) 
Physics

SHUTT, ROLAND P.  
(1963-1972) 
Art

SIEGEL, ALLAN B.  
(1961-1993) 
English

SIEGEL, FRANCES J.  
(1962-1966) 
History

SIRIANI, DON V.  
(1957-1983) 
Dean of Instructional Support

SMITH, RALPH  
(1961-1983) 
Drafting

SOKOLIK, JOSEPH  
(1982-1991) 
Technology

SPECHT, CARL H.  
(1963-1982) 
Administration of Justice

SPENCER, SONORA W.  
(1960-1973) 
Dental Assisting

STAGNER, EUGENE  
(1969-1988) 
Automotive Technology

STANLEY, DELMAR  
(1961-1991) 
Accounting/General Business

STERNER, WANDA  
(1959-1992) 
Chemistry/Energy

STRAUSS, BENJAMIN G.  
(1962-1967) 
Data Processing

SUMNER, EDWARD M.  
(1957-1970) 
Electronics

TABOR, RON  
(1965-1981) 
Speech Communication

TASLITZ, HOWARD  
(1964-1992) 
History

TAYLOR, ROBERT A.  
(1969-1983) 
Philosophy/English

THOMPSON, SIDNEY L.  
(1964-1984) 
Librarian

TILGHMAN, CHARLES  
(1965-1991) 
Instructional Dean, Fine Arts and Communications

TOLLEFSON, GLENN  
(1965-1991) 
Numerical Control

TREAT, MARSHALL E.  
(1956-1977) 
Geology

TUCKER, ROY  
(1961-1991) 
History/Political Science

TURNBLOM, SELMA  
Office Technologies

TYNE, JAMES PATRICK  
(1963-1997) 
Physical Education

VATCHER, OLGA SIEBERT  
(1957-1965) 
Business Education

VENITSKY, JULIETTE L.  
(1957-1984) 
Speech Communication

VIGIL, MODESTO  
(1972-1993) 
Autobody

WAGNER, CHARLOTTE F.  
(1968-1978) 
Speech Communication

WAGNER, M. EDWARD  
(1960-1975) 
Dean of Admissions and Records

WALKER, JOAN  
(1969-1993) 
Cosmetology

WARDEN, WALTER C.  
(1957-1972) 
Mathematics

WEAVER, EDGAR B.  
(1962-1987) 
Technology/Drafting

WEBER, NOVA JEAN  
(1964-1992) 
English
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<td>Associate Dean, Business Division</td>
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<td>(1964-1972)</td>
<td>Director of Purchasing</td>
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DORA MACIAS

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Marilyn Bailey
Paticia Cleveland
Micki Ealnd
Johnny Cooper

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TONI GRIJALVA
KATHY HOGUE
CINDY LO
MARYBETH MARTINEZ
MONICA MASINO
CARON PACE
JENNIFER ZARAGOZA

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KIMBERLY APPLEYURY

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MICKI ENGLAND
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KAREN BOYCE
JUDITH BULANNEK
GERALDINE GREENE
VERONICA GUTIERREZ
JACQUELINE INGLE
DUANE RUMSEY
MARCE TAYLOR
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FREDERICK WILLIAMS
ROBERT WISE

INTERNATIONAL STUDENTS
MARIA DAVID

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LIBERAL ARTS
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SHERIDAN DE BELLIS
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LEONARD ARMIJO
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GWENDOLYN GUSS
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KEH LI MUNDWILLER
RAMONA PAYNE
SCHELLARY THOMAS

FINE ARTS/COMMUNICATIONS
NANCY BALLARD
ANNABELLE EDWARDS
ROSALYN SALIB

HEALTH OCCUPATIONS
JUNE CRISP
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REFUGIO ESTRADA
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ANA ZARRAHY

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JANICE COLE
KIMBERLY CORBITT
STEVEN RICHARDSON

INSTRUCTIONAL MEDIA SERVICES
NORMAN NGUYEN
DEBORAH THOMAS
BERNICE WATSON

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### Classified Employees by Area

#### Presidents Office
- Kathleen Compton
- Cheryl Thury
- Kennethia Vega

#### Publications
- Lynn Laughon
  - A.A., Cerritos College
  - B.A., California State University, Fullerton

#### Purchasing
- Miguel Arias
- Madalyn Castro
- Lucy Chramcow
- Frances Foster
- Donna Jones
- Inez Pineda-Ruelas
- Nubia Santanilla
- Marlene Zweip

#### Reading Center
- Christina Rodriguez
- Susana Pimentel

#### Research and Development
- Lee Evans
- Laurie Kristinat
- Steven Wong

#### School/Community Relations
- Shirley Arceo
  - B.S., California Polytechnic State University, San Luis Obispo
- Roben Frick
- June Hurtado
- Lilia Rodriguez
- Megan Richardson

#### Science/Engineering/Math
- Carolyn Fernandez
  - A.A., Cerritos College
- Linda Harris
- Nora Laredo
- Patrick Legaspi
- Carlos Mera
- W. Leigh White-Howard

#### Student Activities
- Trudy Foster
- Elizabeth Monge
- Doreen Pagano
  - A.A., Cerritos College
- Melissa Swank

#### Student Affairs
- Ronda Lipsohn
- Norma Rodriguez

#### Student Services
- Anita Rios

#### Student Store
- Sandra Beuster

#### Technology
- Alva-Marie Acosta
- Jessica Coronado
- Kimberly Goodman
- Shelly Huston
- Gayle Kline
  - A.A., Cerritos College
  - Roxanne Mitchell
  - David Mussaw
  - Kevin Shelton

#### Technology Training & Distance Education
- Amparo Fernandez-Perez
  - B.A., California State University Fullerton
- Janet Long
  - B.A., California State University, Fullerton
  - Leslie Nanasy

#### Theatre Department
- Richard Crotcher
- Gloria Manriquez
- Etta Walton
  - M.A., California State University, Long Beach
  - David Ward

#### Tutoring Center
- Danielle Jones
- Michelle Rodriguez

#### Warehouse
- Richard Smith
  - John Steele

#### Writing Center
- Martha Rushing
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Cerritos College Alcohol and Drug Policy

CERRITOS COLLEGE’S POLICY
It is the policy of Cerritos College to implement and maintain the provisions of the Drug-Free Schools and Communities Act amendments of 1989. The college’s policy clearly prohibits the unlawful possession, use, or distribution of illicit drug or alcohol by students and employees on campus or as part of any of its activities.

INFORMATION REGARDING LEGAL SANCTIONS UNDER FEDERAL, STATE, AND LOCAL LAWS IS AVAILABLE IN THE FOLLOWING LOCATIONS:
1. Library
2. Personnel Office
3. Student Activities Office
4. Assessment Center
5. Health and Wellness Office

ALCOHOL/DRUG ABUSE COUNSELING, TREATMENT, REHABILITATION INFORMATION:
Referral information and Social Service Directories for Los Angeles and Orange Counties are available in the following locations:
1. Counseling Center, ext. 2231
2. Student Health and Wellness Center, ext. 2321
3. Adult Reentry, ext. 2362

HEALTH RISKS
WHAT CAN HAPPEN TO YOUR BODY

<table>
<thead>
<tr>
<th>DRUG</th>
<th>Initial Use</th>
<th>Chronic Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALCOHOL</td>
<td>• Heart beats faster and weaker</td>
<td>• Permanent liver, heart, brain damage</td>
</tr>
<tr>
<td></td>
<td>• Become clumsy and stagger</td>
<td>• Liver cancer</td>
</tr>
<tr>
<td></td>
<td>• Get confused and can’t concentrate</td>
<td>• Stomach ulcers</td>
</tr>
<tr>
<td></td>
<td>• Feel sick to your stomach, vomit</td>
<td>• High blood pressure</td>
</tr>
<tr>
<td></td>
<td>• Mood changes quickly to violence or depression</td>
<td>• Alcoholism</td>
</tr>
<tr>
<td>COCAINE/CRACK</td>
<td>• Heart beats faster/blood pressure rises</td>
<td>• Permanent lung damage</td>
</tr>
<tr>
<td></td>
<td>• Body temperature rises</td>
<td>• Holes and ulcers inside nose</td>
</tr>
<tr>
<td></td>
<td>• Breathe faster</td>
<td>• Personality changes/violent behavior</td>
</tr>
<tr>
<td></td>
<td>• Can’t sit still or sleep</td>
<td>• Fear of people and things (paranoia)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• See things that aren’t real (hallucinate)</td>
</tr>
<tr>
<td>MARIJUANA</td>
<td>• Feel calm, relaxed, sleepy</td>
<td>• Heart and lung damage</td>
</tr>
<tr>
<td></td>
<td>• Heart beats faster</td>
<td>• Lung cancer</td>
</tr>
<tr>
<td></td>
<td>• Reaction time slows down</td>
<td>• Can’t remember things</td>
</tr>
<tr>
<td></td>
<td>• Throat, mouth, and lips get dry</td>
<td>• Lower ability to fight off colds and flu</td>
</tr>
<tr>
<td></td>
<td>• Eyes get bloodshot, eyesight blurs</td>
<td>• Lower sperm count and movement</td>
</tr>
<tr>
<td></td>
<td>• Lose sense of time</td>
<td>• Dysmenorrhea</td>
</tr>
<tr>
<td>STEROIDS</td>
<td>• Heart beats faster/blood pressure rises</td>
<td>• Heart attacks</td>
</tr>
<tr>
<td></td>
<td>• Become more alert</td>
<td>• Liver cancer</td>
</tr>
<tr>
<td></td>
<td>• Feel dizzy and shaky</td>
<td>• Stop growing taller</td>
</tr>
<tr>
<td></td>
<td>• Can’t sit still or sleep</td>
<td>• Impotency</td>
</tr>
<tr>
<td></td>
<td>• Breath smells bad, mouth and lips dry out</td>
<td>• Dysmenorrhea</td>
</tr>
<tr>
<td>TOBACCO</td>
<td>• Heart beats faster/blood pressure rises</td>
<td>• Lung and heart damage</td>
</tr>
<tr>
<td></td>
<td>• Feel sick to your stomach</td>
<td>• Lung, mouth, and throat cancer</td>
</tr>
<tr>
<td></td>
<td>• Feel dizzy</td>
<td>• Stomach ulcers</td>
</tr>
<tr>
<td></td>
<td>• Feelings of tension/tiredness</td>
<td>• High blood pressure</td>
</tr>
<tr>
<td></td>
<td>• Breath smells bad, teeth stained</td>
<td>• Sense of taste and smell reduced</td>
</tr>
</tbody>
</table>